System Requirement Specification for
National Generic Document Registration System
(NGDRS)

National Informatics Centre
Department of Electronics and Information Technology
Ministry Of Communications and Information Technology
Government of India

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Amendment Log

Version Number	Date	Change Number	Brief Description
1.0	20/05/2016		First Draft
1.0	17/06/2016		Second Draft
1.1	22/06/2016		Third Draft

Acknowledgement

The state specific software systems are already operational in majority of states to facilitate needs of Property Registration. Many of them have been prepared & supported by NIC with variety of features. The idea & decision of preparing a Common & generic configurable web enabled, with local language compliance, National Generic Document Registration System (NGDRS) was a turning point to entire approach.

Software Requirements Identification and Analysis is the first step in the Software Development Life Cycle. It involves intense discussions of IT specialists with domain experts to elicit the domain requirements and detailed analysis of the requirements to finally translate the user requirements into Software Requirements.

NIC head quarter compiled features of majority of systems operational across states and identified iSarita, a Property Registration system operational in Maharashtra, with maximum features to be taken as a base system for further up gradation in generic manner to include remaining requirements of other states. We express our most sincere thanks to various IGRs of Maharashtra for guiding us in preparing & operationalizing iSarita in Maharashtra to such a level!

The assignment of preparation of SRS became challenging due to diversity prevailing across the states on account of various languages, processes, formulae and formats but the help was rightly available because Inspector General of Registrations (IGR) of many states have attempted to streamline, to some extent, the working of entire system while introducing & operationalizing state specific software system for Property Registration.

Further, the software application is expected to be prepared in a generic manner to address the requirements of the functionaries, at various levels, across the country. This means that individual requirements of the states have to be identified and consolidated into a set of generalized requirements which should be ultimately configurable by the states to meet their state-specific needs. A questionnaire was designed & circulated to IGRs and majority of them filled with state specific requirements with the help of local NIC officials and shared with us. To further complicate the requirement analysis process, it may be noted that these requirements are invariably embedded in the orders and circulars of the State Governments as policies, which are not readily available in a structured manner; all requirements have to be elicited from the tacit knowledge of various functionaries. While all of the above posed tremendous challenges to the requirement gathering process, they also provided invaluable experience to the team.

I, on behalf of entire team and NICSI, extend my special thanks to Mr Vijay S Madan, Secretary for entrusting the project to NIC and Dr KP Krishnan, Additional Secretary, Department of Land Resources, Government of India for his valuable guidance as a chairman of Project Review Committee (PRC). I also express my gratitude to Shri HS Meena, Joint Secretary (LR) for his valuable support.

Most sincere thanks are due to IGRs (and their representatives), with special mention to IGR Maharashtra and his representatives , NIC state officials dealing with Property Registration software who provided domain related information through questionnaire & participated in various VC based meetings held through and in person without which understanding of domain would have remained incomplete.

Shri D C Misra, DDG & HoG, and Mrs Seemantinee SenGupta, SrTD & HoD deserves special thanks for multi-dimensional technical and administrative support for conceptualizing the project and role in preparation of SRS.

Last but not the least, I take this opportunity to thank Dr. Mrs Swati Sardesai, DDG and HoG, NIC-Pune Centre for inspiring, guiding and supporting the project on day-to-day basis without which it would have been difficult to reach at this stage. My sincere appreciation is also due for Mrs Vaijayanti Vaidya (TD) and iSarita team from NIC Pune, Mrs Anjali Bembalkar (PSA), the National level team at NIC-Pune and Mr Dibyojit Dutta, Technical Director , Mr D S Venkatesh, PSA at NIC Hq , who played significant role for ensuring timely and qualitative delivery of the SRS document and for actively participating in the workshops and peer review process.

(Mrs. K. J. Honrao)

Senior Technical Director &

Project Coordinator

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1. INTRODUCTION

1.1 Project Background

Registration system is an integral part of the Revenue System of the states, which leads to to registration of deed , mutation and updating of land records. This process of registration is governed by the Registration Act 1908 except in Jammu and Kashmir. .Assessment of Stamp Duty as per the Indian Stamp Act 1899 or the State Stamp Acts is also a core function in the registration process. In order to computerize the process of Registration, all states have deployed software mostly developed in house by NIC under DILRMP. This software have evolved and matured over time. However, recent survey by the NIC & DoLR team has revealed that most of these softwares need to be upgraded using modern technologies and hosted centrally for interoperability with the state Land Records System and easy, reliable, cost effective maintenance. It was decided that NIC will develop a single application centrally for the use of all state governments on the similar lines of application of Maharashtra government.

The proposed solution will be a common generic and configurable registration application across the country for all states & UTs.

1.2 Purpose

This SRS describes the software functional and non-functional requirements for release 1.0 of the National Generic Registration System (NGDRS). This document is intended to be used by the members of the project team that will implement and verify the correct functioning of the system. Unless otherwise noted, all requirements specified here are high priorities and committed for release 1.0.

1.3 Present System

Current process flow is as follows.

1) Preparation of document with NOC, other required document as per type of the document
2) Valuation   : If   required as per Article.
3) Stamp Duty & Registration fee calculation & payment.
4) Presentation of document at concerned SR office.
5) Admission of execution of the document
6) Verification/Scrutiny of document by SR Officer.
7) Identification of executors & witnesses.
8) Final Registration with authority signature.
9) Scanning/Xeroxing of document.
10) Handover the original document to party.

1.4 Project Scope

National Generic Registration System (NGDRS) is basically web enabled single application which will be deployed as state wise instance. NGDRS will be a common generic & configurable document registration application for all states across the country. Application is specifically designed to use of sub registrars, citizens & Apex users from registration department. The product will work as complete user interface for Document Registration process.

1.5 Definitions

Sr. No.	Name	Description
1	Registration	Recording of the contents of a document with a Registering Officer for the purpose of conservation of evidence, publicity of documents and prevention of fraud.
2	Stamp duty	A duty levied on the legal recognition of certain documents.
3	Article	A legal term under which Stamp duty is chargeable or in general sense a category of document is registered.
4	Document Title	Title/name of the document given by the party at local level
5	Ready Reckoner Rate	Table listing numerical values of property rates stated for particular location & measurement unit
6	Presentation	The activity which takes care of the receipt of the documents and supporting documents to be registered, from the Presenter
7	Admission	The activity which takes care of ascertaining that the document has been willfully executed by the parties under no under no pressures and threats, and in a state of mental stability.
8	Valuation	Arriving at estimated market value which is the most probable price of the property as per the government rates, in the open market. Legally , it is a method of determining a price which could be fetched by the property if sold in open market.
9	Depreciation	A reduction in the value of an asset over time, due to particular age of the property.
10	Construction type	Type depending on the Material used at the time of construction of building

1.6 Abbreviations

Sr. No.	Name	Description
1	NGDRS	National Generic Document Registration System
2	IGR	Inspector General of Registration
3	SRO	Sub Registrar's Office
4	UID	Unique Identification Number
5	DIG	Deputy Inspector General of Registration

1.7 References

Sr. No.	Document	Department
1	Systems & software engineering Life cycle process:- Requirements engineering	ISO/IEC/IEE 29148 2011 template
2	Documents received from states& UTs in response of Questionnaire circulated by NIC	
3	Gap Analysis document generated by NIC.	
3	Registration Act 1908	
4	The Indian Stamp Duty Act 1899	

1.8 Structure of this document

The SRS is organized as follows:

 Section 1: Speaks about project background, scope, definitions and structure of the document.

Section 2: Gives a general description and product functions and entities of the software. It also explains what level of proficiency is expected of the user, some general constraints while making the software and some assumptions and dependencies that are assumed.

 Section 3: Gives external interface requirement for the software. It gives technical information about User interface, Hardware interface, Communication interface, Software interface and Data interface.

Section 4: Gives functional requirements, which the software is expected to deliver. Selected main Functional requirements are given in form of various use cases.

Section 5: Describes nonfunctional requirements. Some performance requirements and software system attributes are given.

Section 6: Includes class diagrams, logical data modeling.

Section 7: Finally the annexure includes reports layouts, codification scheme.

2. GENERAL DESCRIPTION

2.1 Context Diagram

2.1.1 Overall Context Diagram

2.1.2 Citizen User Registration

DFD for Citizen Registration before Login

Enter Personal Details

Citizen

1.0 Registration

Store

DB1 | Registration Database

Generate OTP

OTP

Send to

Send to

OTP Validation Page

Response from System

Success or Failure
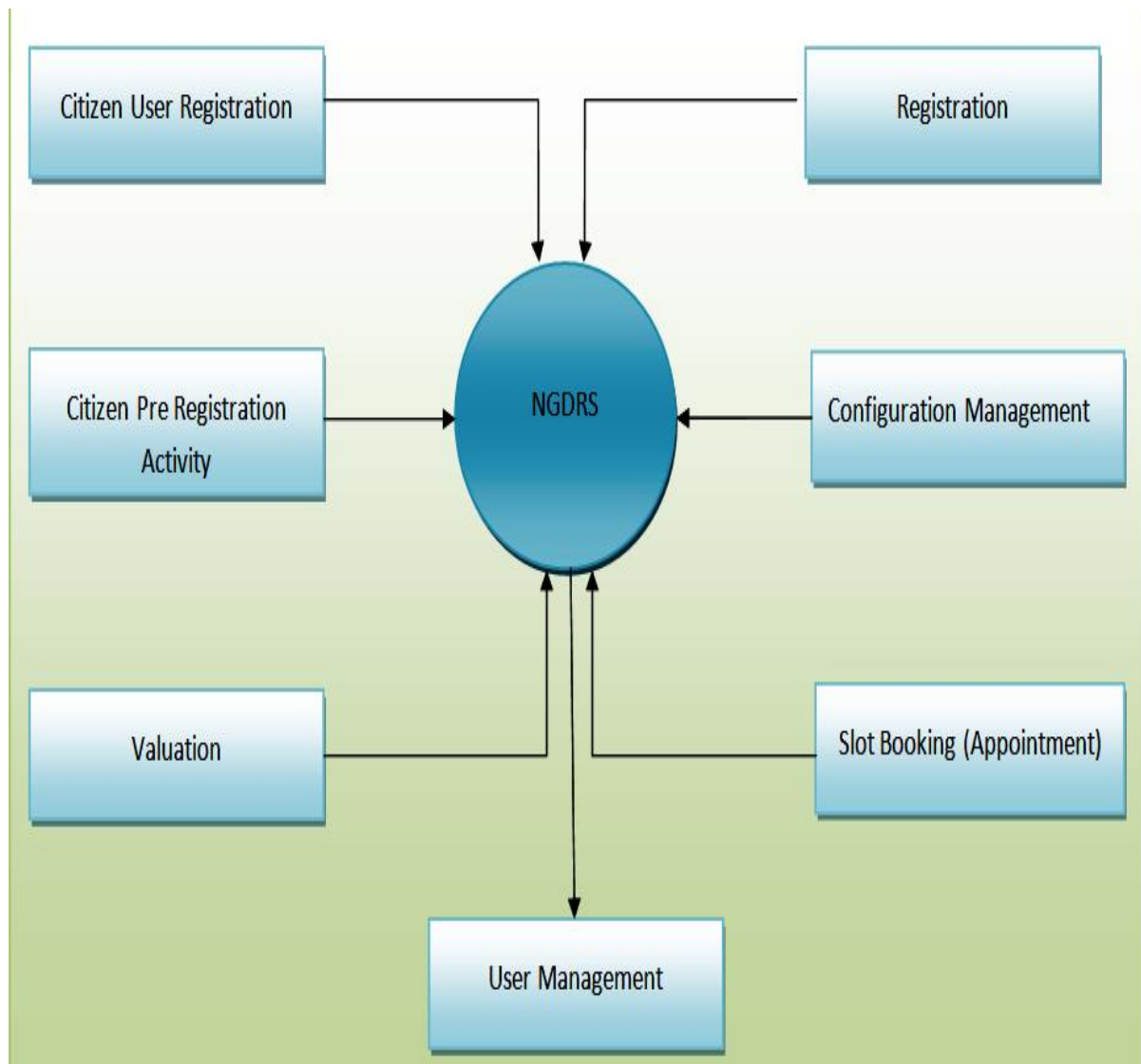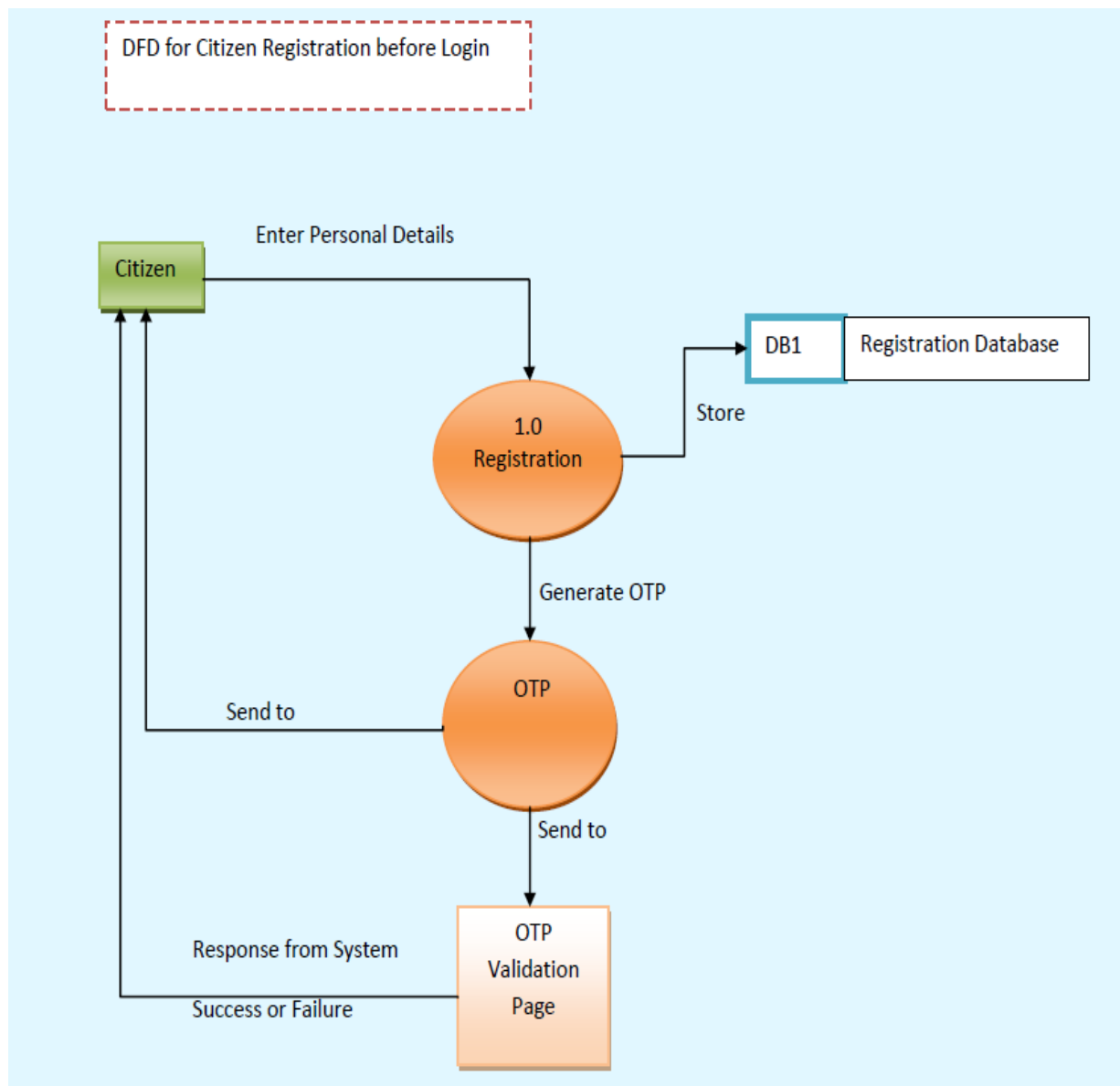
2.1.3 Citizen Pre-Registration Activity
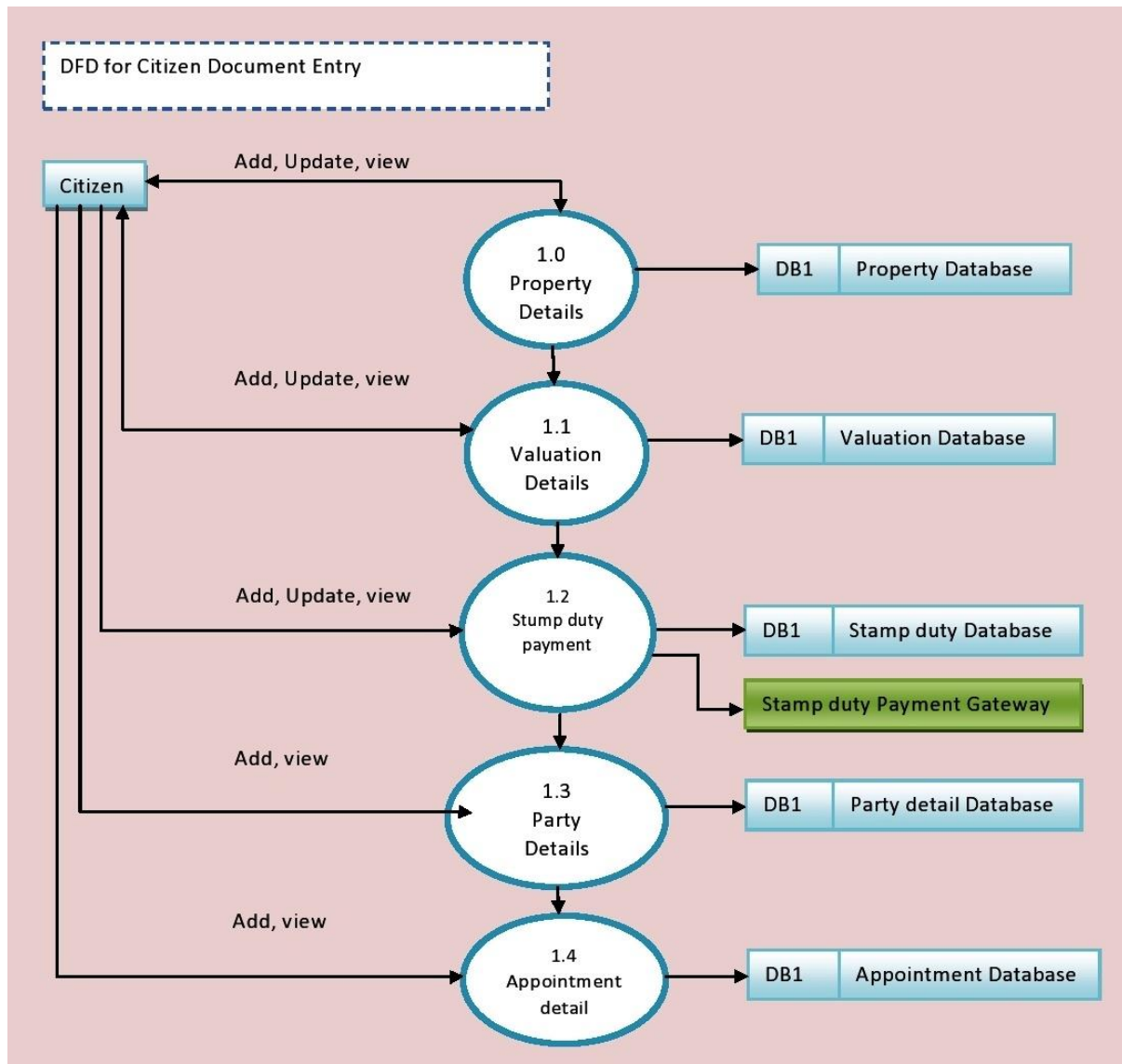
2.1.4 Valuation Rule

Valuation Rule Data Flow Diagram
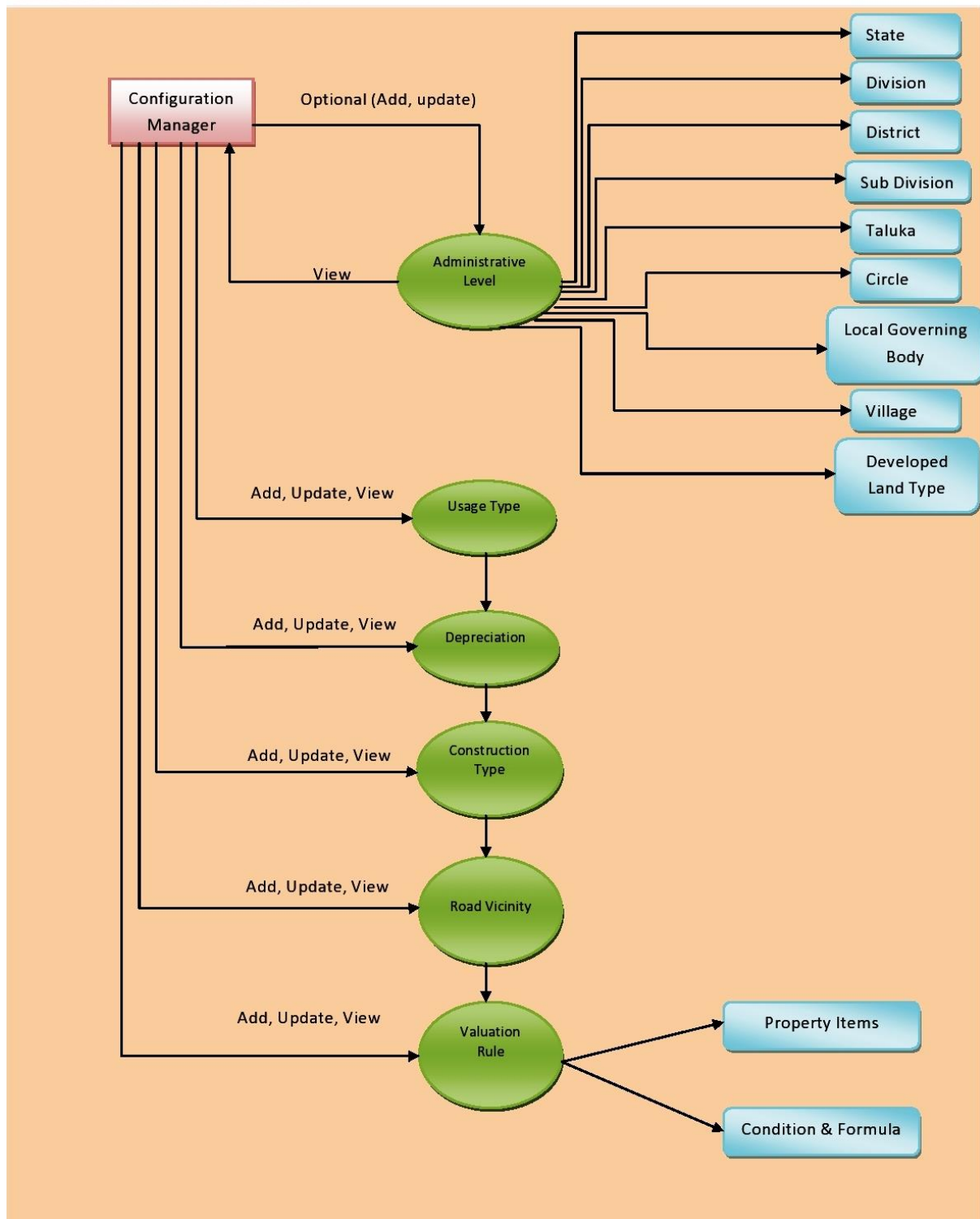
2.1.5 Property Valuation

Valuation Data Flow Diagram

2.1.6 Registration Process
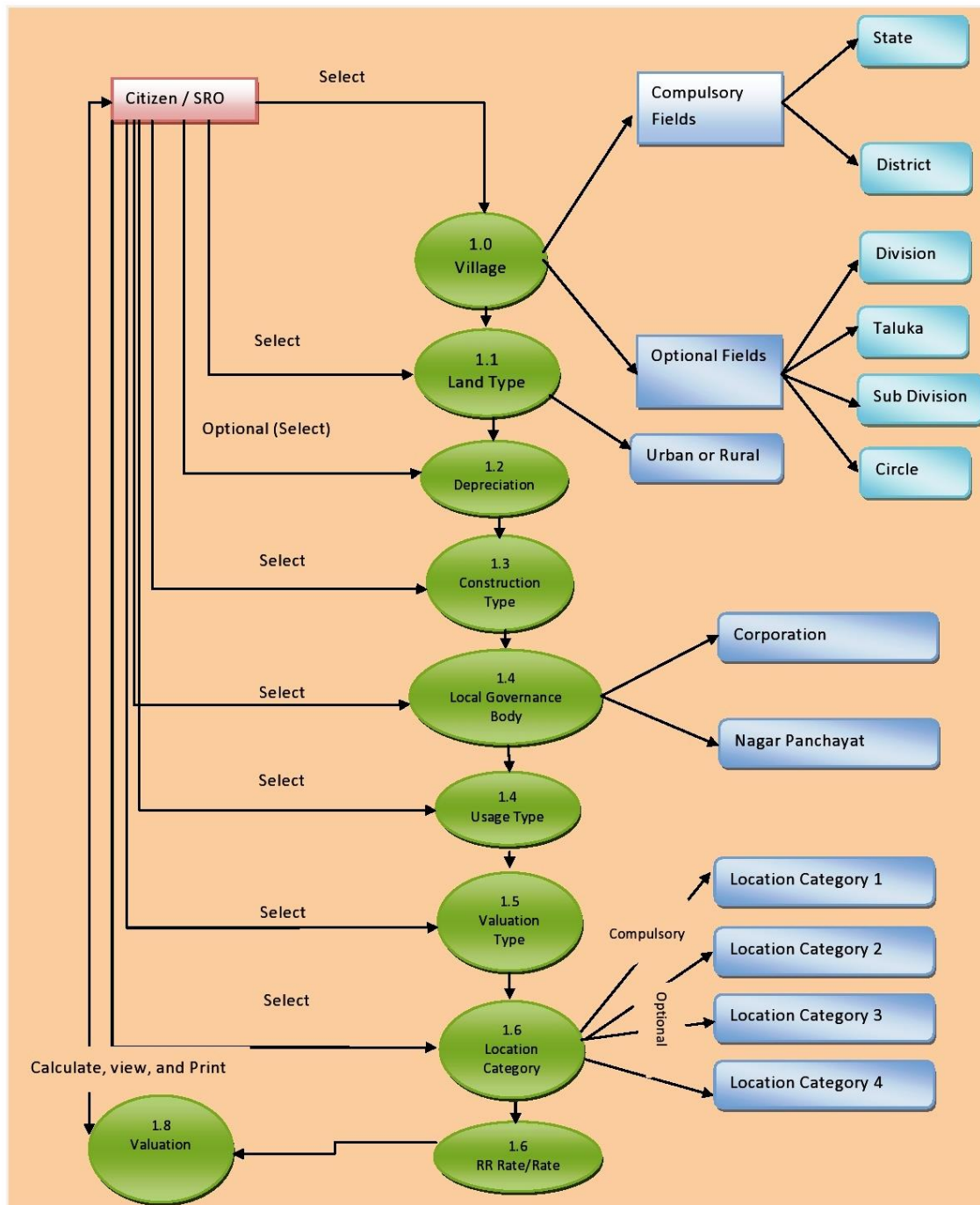
First Level DFD for Registration Process
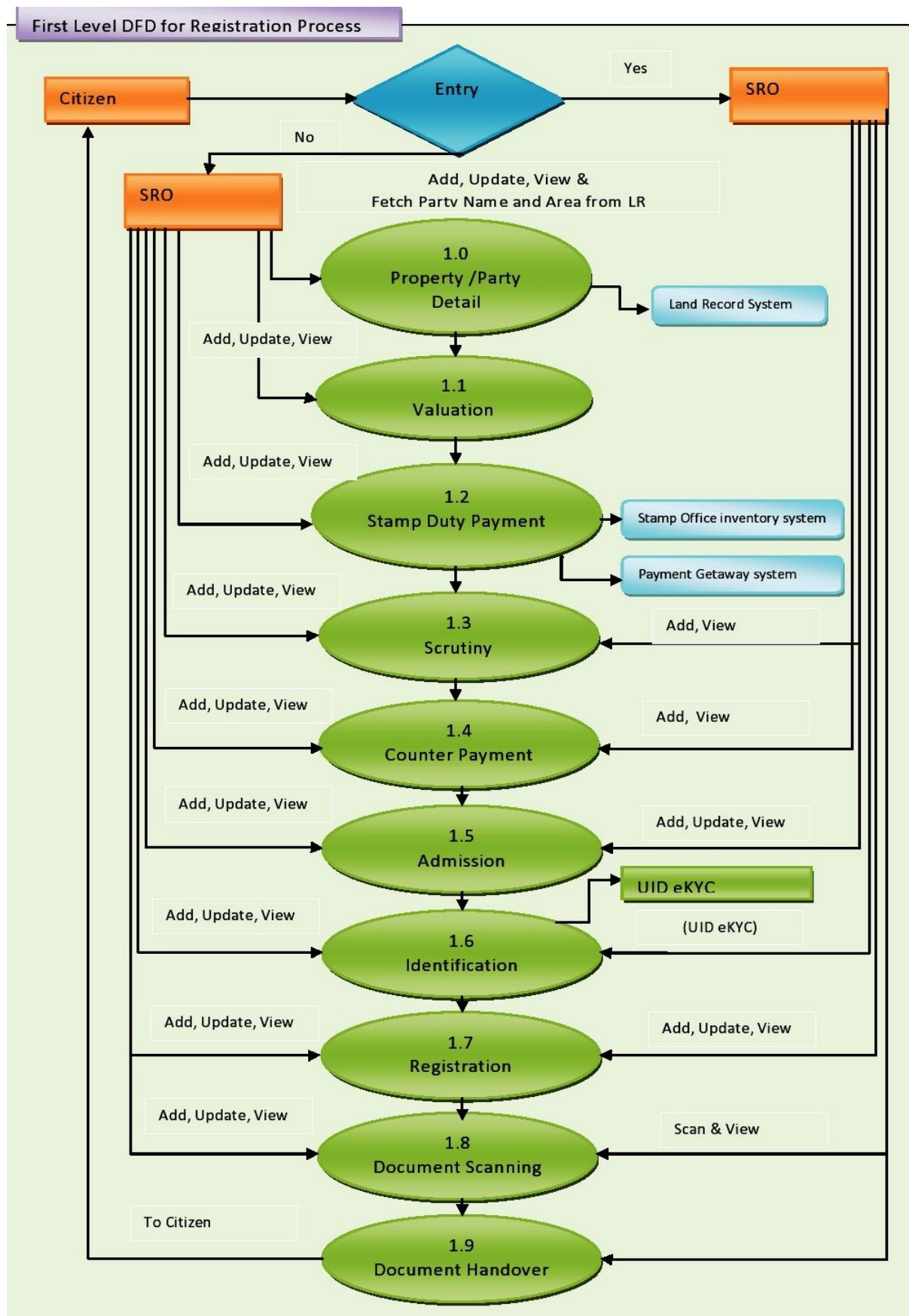
2. Product Perspective

The product is supposed to be developed using open source development tools. It is a web based system implementing single instance for entire state.

The National Generic Registration System provides mechanism for citizens to register the documents with a Registering Officer for the purpose of conservation of evidence, assurance of title, publicity of documents and prevention of fraud.

The following are the main features that are included in the registration process:

- Citizen registration to request the access permission of the system.
- Facility for Online document entry by citizen.
- Online valuation module with stamp duty calculation.
- SMS facility to send alerts to citizens & departmental users.
- Email enabled alerts to citizens & users.
- Hierarchy based maker/checker facility.
- eKYC - UID based authentication with the help of biometric or iris at the time of Admission.
- Linkage with Land records system.
- Interface for Online payment facility.
- Linkage with stamp inventory software to avoid duplicate usage of used stamp paper.
- Storage of copy of registered documents using scanning technology.
- View, download scanned documents to generate certified copy for authorized user.
- Unicode based Local Language support.
- Registration anywhere within concurrent jurisdiction.
- Single log in credentials for all modules
- Daily, Monthly & yearly MIS reports with cash book & other account related reports.

2.3 Product Functions

The system provides many modules and major functions under each. The modules are uniquely identified and allotted a Module Id as M<XX>, where M indicates that it is a Module and <XX> is a serial number. The major functions are allotted a Major Function Id as FN<XXXX>. The list of Modules & Major functions with its title is given below,

Sr. No.	Module Code	Description
1	M01	Configuration Management
2	M02	User Management
3	M03	Administration
4	M04	Appointment for Registration
5	M05	Property Valuation
6	M06	Public data entry
7	M07	Registration
8	M08	Dashboard
9	M09	Document Search
10	M10	Case Monitoring
11	M11	Stamp Duty & fee calculator

Sr. No.	Module Code	Function Code	Description
Configuration Management			
1	M01	FN0101	Local Language selection
2	M01	FN0102	Administrative blocks in state
3	M01	FN0103	Link Village with administrative blocks
4	M01	FN0104	Location classification within village/ city
5	M01	FN0105	Address block details for Urban, Rural
6	M01	FN0106	Property usage classification
7	M01	FN0107	a. Ready Reckoner /Rate chart creation b. Property Item rate chart creation
8	M01	FN0108	Creation of Property items for valuation
9	M01	FN0109	Valuation Rule formation
10	M01	FN0110	Linking of property items with usage category and valuation rule
11	M01	FN0111	Stamp Duty Fee Rule formation
12	M01	FN0112	Stamp duty / Registration fee exemption rules
13	M01	FN0113	Registration Configuration options
14	M01	FN0114	Defining concurrent jurisdiction
15	M01	FN0115	Registration endorsement steps
16	M01	FN0116	Rate chart main information
User Management			
17	M02	FN0201	Create office shift, hierarchy , office details & employee
18	M02	FN0202	Creation of application modules, user roles & assign function permissions to roles
19	M02	FN0203	Creation of users , & assign roles to users
20	M02	FN0204	User biometric registration for login for specific roles as SRO.

21	M02	FN0205	User activate/deactivate with duration
22	M02	FN0206	SRO charge handover
23	M02	FN0207	SRO Joining
24	M02	FN0208	a) User Login b) Sensitive user login
25	M02	FN0209	Forgot Password
26	M02	FN0210	Change Password
Administration			
27	M03	FN0301	Year initialization process
28	M03	FN0302	Developed land types
29	M03	FN0303	Local governing body with category
30	M03	FN0304	Property Dependency Attributes
31	M03	FN0305	Measurement units
32	M03	FN0306	Major fee account heads
33	M03	FN0307	Document Handling fee types
34	M03	FN0308	Stamp duty, Registration and other fee items creation
35	M03	FN0309	Stamp duty payment modes
36	M03	FN0310	Counter payment modes
37	M03	FN0311	Reasons for skipping Valuation
38	M03	FN0312	Article list formation
39	M03	FN0313	Document titles list formation
40	M03	FN0314	Document execution types
41	M03	FN0315	Property attributes
42	M03	FN0316	Documents as proof of identity
43	M03	FN0317	Party types
44	M03	FN0318	Party attributes
45	M03	FN0319	Identifier types
46	M03	FN0320	Identifier attributes
47	M03	FN0321	Master code maintenance
48	M03	FN0322	Bank branch list formation
49	M03	FN0323	Upload file category
50	M03	FN0324	Alerts/ messages
51	M03	FN0325	Prohibited Property details
Appointment for Registration			
52	M04	FN0401	Holiday list creation
53	M04	FN0402	Slot period entry and booking rules
Property Valuation			
54	M05	FN0501	Property Inspection for Valuation
55	M05	FN0502	Property Valuation
56	M05	FN0503	Stamp duty calculation
Public data entry			
57	M06	FN0601	Citizen User Registration
58	M06		Document entry : Citizen Pre-Registration Activity
59	M06	FN0602	General information entry - token number generation
60	M06	FN0603	Property details
61	M06	FN0604	Party details
62	M06	FN0605	Identifier details
63	M06	FN0606	Property Valuation details

64	M06	FN0607	Stamp duty calculation/ verification
65	M06	FN0608	Stamp duty payment details
66	M06	FN0609	Slot Booking
67	M06	FN0610	Final submission of document
Registration			
68	M07	FN0701	Scrutiny of the document & presentation
69	M07	FN0702	Registration and handling charges payment acceptance
70	M07	FN0703	Admission & Identification process
71	M07	FN0704	Finalization of document registration
72	M07	FN0705	Scanning, preserving the registered document and handover
73	M07	FN0706	Certified copy of registered document
74	M07	FN0707	Manual Document Registration
75	M07	FN0708	Registered document correction procedure
76	M07	FN0709	MIS Reports
77	M07	FN0710	Document search for Department user
78	M07	FN0711	Encumbrance Certificate(E.C)
Dashboard			
79	M08	FN0801	Display Dashboard
Document Search			
80	M09	FN0901	Online Document Search for citizen
81	M09	FN0902	Online Party Name Search for citizen with GPA search
82	M09	FN0903	Encumbrance Certificate(E.C) for Citizen
Case Monitoring			
83	M10	FN1001	Case Types
84	M10	FN1002	Objection Types
85	M10	FN1003	Case Status
86	M10	FN1004	Case Admission
87	M10	FN1005	Case Notice
88	M10	FN1006	Case Hearing
89	M10	FN1007	Case Judgment
90	M10	FN1008	Difference Amount payment & receipt
91	M10	FN1009	Case Disposal
92	M10	FN1010	Case Monitoring Dashboard
Stamp Duty & fee calculator			
93	M11	FN1101	Stamp Duty & fee calculator

2.4 Product Entities

The common list of entities used in the Major functions as well as in the sub functions is given below,

1) Office Hierarchy Levels (Configuration Levels)

- IGR – Inspector General of Registration. Apex body in official hierarchy. Hierarchy Level 10. (Two digit numeric code)

- DIG: Deputy Inspector General of Registration. . Hierarchy Level 20. (Two digit numeric code (If available in state)

- JDR: Joint District Registrar. . Hierarchy Level 30. (Two digit numeric code (If available in state)

- SR: Sub Registrar. . Hierarchy Level 40. (Two digit numeric code)

2) Administrative Block Levels Office Hierarchy Levels (Configuration Levels)

Sr. No.	Item	Compulsory/ Optional	Remark
1	State	C	English label is fixed as state, Local language label is available for modification
2	Division	O	English label & Local language label is available for modification
3	District	C	English label is fixed as state, Local language label is available for modification
4	Sub division	O	English label & Local language label is available for modification
5	Taluka	O	English label & Local language label is available for modification
6	Circle/Block	O	English label & Local language label is available for modification
7	Local governing body type : Corporation type A, Nagar parishad A, B, etc.	O	English label & Local language label is available for modification.
8	Local governing body	O	English label & Local language label is available for modification
9	Developed Land Type	C	Urban/Rural/Influence : English label & Local language label is available for modification
10	Village	C	English label is fixed as state, Local language label is available for modification

3) Location levels within Village

- Location Level 1: Zone/Area/Ward/Mohalla/Peth: Division of area.

- Location Level 2: Sub Division of area.

- Location Level 3: Sub Sub Division of area.

- Location Level 4: Fourth level Division of area.

4) Property: Property which is to be registered.

5) Party: which are either executants of the document or claimant as per the document e.g Seller/Purchaser, advocate/ executor dealing with document registration.

6) Property Items which are taken into consideration at the time of property valuation.

Example

- Land area
- Constructed area
- Terrace area
- Car parking

- Non cultivated land

7) Document: Written and signed record which is to be registered under as per registration act.

8) Fee: Payment to government made against document registration which is required for conservation of evidence, assurance of title, publicity of documents and prevention of fraud.

Example

- Stamp duty fee
- Registration fee
- Handling charges
- LBT fee
- Cess

8) Property Rate: Value of property as per usage , area , developed land types (Urban/Rural), local governing body , usage attributes as age of property, construction type, road vicinity like near highway etc.

2.5 User Characteristics

- It is considered that the users do have the basic knowledge of operating the internet and to have access to it. The administrator is expected to be familiar with the interface of the tech support system.

2.6 General and Design Constraints / Limitations

2.6.1 System Constraint

- The architecture of NGDRS on which the design and system development is based, is as follows.
- A server will be maintained centrally which will host the RDBMS, web server and Web based application.
- All the users will have connectivity to the central server from the clients at their end either through Intranet or Internet.

2.6.2 Design Constraint

- The front end of the system is developed using CakePHP / HTML5, CSS3 and PostgreSQL 9.3 will be used as the backend database.
- A server will be maintained centrally which will host the RDBMS, web server and Web based application
- The accuracy and the authenticity of the data in the system will be dependent upon the accuracy of data provided by the user.
- It is the responsibility of the user to take proper backup at regular intervals.
- The application software will not take care of any virus problem caused due to any reason. However, this can be minimized by regular scanning of virus by latest anti-virus software & by avoiding the use of pirated software and personal floppies.
- Upkeep /maintenance of s/w and the hosting machine will be the sole responsibility of implementing agency.
- Making internet connections available to the users will be the sole responsibility of implementing agency.

2.6.2.1 Parent Module

- Configuration Management
  This is state level initialization activity which is mandatory before starting usage of any other modules. Module takes care of administrative block level definitions, location level classifications, usage category classification, language setting, etc.
- User Management
  Module helps to create roles, users and user permissions, provides login function and change password.

2.6.2.2 Child Modules

- Property Valuation:
  Property valuation or land valuation is the process of arriving at market value of property. Module will take care of calculating market value.
- Public data entry:
  Citizen will be able to enter pre-registration details using this module. After registration citizen will get login credentials on mobile using OTP.
- Appointment booking
  Citizen can book preferred slots for registration at SR office, if the slot is available.
- Registration
  Citizen approaches to SR offices with document copy which is to be registered. SRO verifies /scrutinizes the document. Fees are paid. Parties, Witnesses are to be identified & document is to be registered & signed. Registered document is scanned & preserved. Copy is to be handover to concerned party.

2.7 Assumptions & Dependencies

- State/UT level configuration manager will be from State/UT Registration Department.

- Configuration is thoroughly checked.

- The state/UT level ready reckoner / rate chart is published where it is to be used for property valuation.

- Valuation rules are added.

- Office Hierarchy is added in the NGDRS.

- Registration is executed at registrar/sub registrar within the district or sub-district or in the office of SDM in some states.

2.8 Acceptance Criteria

The user will accept the modules / software based on following criteria.

- The functionality delivered by the module / system matches exactly with the requirements as mentioned in Functional requirements.

- The integrity of the function / module with other module is maintained.

- The error messages / alerts are given at proper places to convey the error / warning condition.

3. External Interfaces

There are many types of interfaces as such supported by the NGDRS application system namely; User Interface, Software Interface and Hardware Interface.

The protocol used shall be HTTP.

The Port number used will be 80.

3.1 User Interfaces

a. The user interface for the software shall be compatible to any browser such as Internet Explorer, Mozilla or Google Chrome by which user can access to the system.

b. The Graphical user interface shall be implemented using application through input screens and output reports. The input screens and Reports use text boxes, combo boxes, list boxes, radio buttons and other familiar Windows features. All the screens and reports are integrated into a single Menu to save the details into the database. The users also receive clear, understandable messages indicating success/failure/error status during the usage of the package.

3.2 Hardware Interfaces

Since the application must run over the internet, all the hardware shall require to connect internet will be hardware interface for the system. As for e.g. Modem, WAN – LAN, Ethernet Cross-Cable.

Sr. No.	Hardware component	Description
1	Web server	Server with Linux OS : Application server & Database server
2	Client	Windows client with 4/8 GB RAM, Antivirus pre-loaded.
3	Web Camera	Web camera with USB interface 1280 x 960 pixel still image.
4	Bio metric device for Finger-Print recording	Optical based finger print device. Compatible with UID standards.
5	Document Scanner	HP/ Scan Jet / Canon

Note: User can use equivalent or higher / lower configuration

3.3 Software Interfaces

• The NGDRS system shall communicate with state/UT government's payment gateways system to identify available payment methods, validate the payments and process payment.

• The NGDRS system shall communicate with internet payment gateways system to validate the payments and process payment.

• The NGDRS system shall communicate to state specific Land records system for fetching party names & land area.

• The NGDRS system shall communicate with Aadhaar e-KYC system for authentication.

- The NGDRS system shall communicate with Stamp office Inventory system to deface the eStamp or any other stamp/registration fee done through ePayment.

3.4 External System Linkages

Following interfaces to be used in Document Registration Process:

Name of Interface	Service Available	URL	Operations	Compulsory	Request	Request Data Type	Response	Response data type
Land Records	Yes		1) Fetch party details & area. 2) Send data to mutation after registration	yes(In case of Mutaion related document only)	1) Village, survey number. 2) Village Survey No. Party name, sale area		1) Party names Area 2)Mutation record	
SD payment Govt. Gateway : GRAS			Verify payment		Payment type: GRN GRN No., Type of payment (SD or RF), Amount, date eSBTR eSBTR No., Amount, Date , Stationary Number (Stationary number is in case of eSBTR only).		GRN no., successful flag, date, amount	
SD payment Internet banking payment			Verify payment		Payment Bank: Bank Branch code Amount TRN no. date		Bank branch code, Transaction no., successful flag, date, amount	
GSO Service (Verification of Stamp Paper)			Verify eStamp & Deface		If stamp used send stamp No. & used flag to stamp registration		Check stamp No. & send verified.	
Aadhaar			eKYC verification		UID & Thumb impression		Name & Photo	
Data Export API			Export data in Excel		User name Password		Excel work sheet	

Digital Locker			Export data to digital locker if UID is available		UID Registered mobile number		Successful flag, transaction No.. and date	

3.5 Communication Interfaces

Following communication interfaces will be used:

1. The NGDRS system shall use the HTTP protocol for communication over the internet and for the intranet communication will be through TCP/IP protocol suite.

2. E-mail to send specific information

3. SMS to send alerts with document No., receipt No., transaction numbers, OTP, etc.

3.6 Data Interfaces

The system has data interfaces with following external systems.

• eKYC - UID Verification with the help of biometric & iris at the time of Admission.

• UID number and biometric data will be sent to UID server; Name will be verified if the credentials match.

• Linkage with 7/12 abstract i.e., Land records system.

• Census code of village and survey number will be sent to Land record system; Party details will be retrieved

• After successful registration process, survey number, party details and sale area will be sent to Land record system for mutation.

• Interface for Online payment facility.

• Transaction id will be entered and party details and amount details will be fetched.

• Linkage with stamp inventory software.

• Stamp number will be matched with stamp inventory software to avoid duplicate usage.

4. FUNCTIONAL REQUIREMENTS

4.1 Stakeholders: Actor Goal List

Sr. No.	Stake holders / Actor	Goal
1	Citizen	Registration, OTP enabled login credentials, entry of property and party details, valuation & online stamp duty payment (if compulsory) as a pre-registration process for own document.
2	Document writer	Entry of property and party details & online stamp duty payment (if compulsory) as a pre-registration process for documents of other individual citizens.
3	User manager	To create user, Assign role & access permissions to user. Deactivate user.
4	Configuration Manager	Configuration Manager can create custom workflow and assign them to user. Location levels, usage types can be configured. Valuation rules, stamp duty calculation rules, counter payment calculation rules, fee exemption rules
5	Administrator	Initialize/Update counters & master codes. Use activation period, delayed document acceptance period, financial year , bank details,
6	Information officer	Data entry of property and party details, stamp duty payment received details at SRO level
7	Sub Registrar	Scrutiny of the documents generated by citizen & , presentation, fee collection, admission, identification and final registration, document handover, certified copy generation
8	Cash Counter Officer	Counter fee collection
9	Document scanner operator	Scanning of registered documents and upload to storage area
10	Inspector General of Registrar (Higher authority as per hierarchy : JDR, DIG, IGR)	Verification and monitoring of hierarchy wise registered/ pending documents, revenue received etc.
11	Property Inspector	Inspection of property with details & uploading of inspection report.
12	External Department	To fetch the data from NGDRS.

4.2 Product function details

M01: Configuration Management

The Geographical information with hierarchy , location classification, property usage types, dependency attributes, formation of rules, etc. will be configured using this module.

FN0101: Local Language selection

Pre-requisite – The user should have his user id & logged in

Purpose – To select local language names which will be required during registration process?

Description –List of all local languages will be available while configuring them for the state. Apart from English, user can select the local languages which ever applicable.

Languages can be selected at the time of Configuration
• State can select English and number of required local languages from the list available
• Master code to be updated for all selected languages
• At the time of document entry, local language selection will be displayed. Document will be in English and selected local language

Post condition

The creations and updating of local language selection are done using this function & then made available to NGDRS.

FN0102: Administrative blocks in state

Pre-requisite – The user should have his user id & logged in.

Purpose –To define administrative block levels, developed land types (Urban/Rural/Influence), local governing body type & actual name. Village/city is to be mapped with these levels.

Description –Six levels are available to define administrative block configuration for particular city/village. Developed land type (Urban/Rural/Influence), Local governing body type & local governing body is too added. User can select the levels which ever applicable. State level & District level is compulsory.

Level	Administrative Block	Compulsory/Optional
• Level I	• State/ Union Territories	• Compulsory. Census code.
• Level II	• Region/ Division	• Optional
• Level III	• District	• Compulsory. Census code.
• Level IV	• Subdivision	• Optional
• Level V	• Taluka	• Optional
• Level VI	• Circle	• Optional
• Level VII	• Local governing body type : Corporation type A, Nagar parishad A, B, etc.	• Optional
• Level VIII	• Local governing	• Optional

	body	
• Level IX	• Developed Land Type	• Optional
• Level X	• Village/City	• Compulsory. Census code. Linked with administrative block levels (from I To VI which ever applicable)

- English heading for Compulsory levels (I, III, X) cannot be changed.
- Local language heading for Compulsory levels can be added.
- English & Local language heading for Optional level can be changed.

Post condition

The creations and pupations of administrative blocks are done using this function & then made available to NGDRS.

FN0103: Link Village with Administrative blocks in state

Pre-requisite – The user should have his user id & logged in

Purpose –To link village with administrative block levels, developed land types (Urban/Rural/Influence), local governing body type & actual name

Description –Link village with administrative block available in configuration for particular city/village. Developed land type (Urban/Rural/Influence), Local governing body type & local governing body is too added.

Level	Administrative Block	Compulsory/Optional
• Village	• Enter name of village with census code	• Compulsory. Census code.
• Level I	• State/ Union Territories	• Compulsory. Census code.
• Level II	• Region/ Division	• Optional
• Level III	• District	• Compulsory. Census code.
• Level IV	• Subdivision	• Optional
• Level V	• Taluka	• Optional
• Level VI	• Circle	• Optional
• Level VII	• Village/City	• Compulsory. Census code. Linked with administrative block levels (from I To VI which ever applicable) and • local governing body • Developed land types

Post condition:

The link village and pupations of village are done using this function & then made available to NGDRS

FN0104: Location classification within village/city

Pre-requisite – The user should have his user id & logged in.

Purpose – To classify locations within particular village/city.

Description –Four levels are available to classify locations within particular village/city. User can define the levels as per requirement. Levels & level lists are available. Survey numbers/door numbers can be added as location level & level lists. Location levels are to be mapped with village/City.

• • Level	• Location Levels	• Compulsory/ Optional
• Level I	• Zone/ Vibhag/ Location/ Ward/ Cluster	• Default/ Compulsory.
• Level I List	• List of Zone/ Vibhag/ Location/ Ward/ Cluster names	• Default/ Compulsory.
• Level II	• Sub zone/ Sub Vibhag/ Sub Location/ Cluster division	• Optional
• Level II List	• List of Sub zone/ Sub Vibhag/ Sub Location/ Cluster division names	• Optional
• Level III	• Level III Headings	• Optional
• Level III List	• Level III List	• Optional
• Level IV	• Level IV Headings	• Optional
• Level IV List	• Level IV List	• Optional

Post condition

The creations and updating of locations are done using this function & then made available to NGDRS.

FN0105: Address block details for Urban, Rural

Pre-requisite – The user should have his user id & logged in.

Purpose –To define address block format for Urban/ Rural properties

Description –User can create the format in which address of a particular property can be captured in the system. Hierarchy of input address fields can be set for Urban and Rural area.

Urban Address format	Rural Address format
• House No./ Flat No./ Door No. • Building Name • Landmark • Road/Street • Locality/Sector • City • District • Pin code	• House No. / Door No. • Landmark • Road/Street • Location • Village • Taluka • District • Pin code

Following address patterns may be used
- Income Tax pattern
- Customized pattern
- As written on document

Post condition

The creation and updating of address block format is done using this function & then made available to NGDRS.

FN0106: Property usage classification

Pre-requisite — The user should have his user id & logged in.

Purpose –To classify property usage category within state.

Description –Three levels are available to classify usage category within state. User can define the levels as per requirement.

Category	Description
Main Category	Agriculture, Non-agriculture Open, Non-agriculture Built, Non-agriculture Open & Built
Sub Category	Residential Commercial Industrial Farm Land
Sub Sub Category	Flat Building Bungalow/ Row House/ Pent House Office Shop in Mall Hospital Jirayati Hungami Bagayati Baarmahi Bagayati

Post condition:

The creations and pupations of usage category are done using this function & then made available to NGDRS.

FN0107a: Ready Reckoner/ Rate Chart creation

Pre-requisite – The user should have his user id & logged in.

Purpose –To store location wise and usage category wise rates.

Description –User can define location wise and usage category wise rates as per requirement. If rate value is defined as range, user can add lower and upper bound. Provision will be made to store two rates for a single location using slab-rate condition.

Location wise usage category wise Rate Chart details
• Village/ City
• Land types
• Location Level 1
• Location Level 2
• Location Level 3
• Location Level 4
• Range From   If rate is to be checked for survey numbers within range
• Range To
• Usage Main Category
• Usage Sub Category
• Usage Sub Sub Category
• Property Rate
• Property Measurement Unit
• Effective Date
• Financial year
• Rate for : Market rate / Ready Reckoner rate
• Rate is of : Built up/ Super built up/ Carpet

Post Condition

The creations and pupations of rate chart values can be done using this function & then made available to NGDRS.

FN0107b: Property Item Rate Chart creation

Pre-requisite – The user should have his user id & logged in.

Purpose –To store location wise and category wise property item rates.

Description –User can define location wise and category wise property item rates as per requirement. Property items are cashew nut trees, coconut trees, mango trees, etc. If rate value is defined as range, user can add lower and upper bound.

Location wise category wise property item Rate Chart details
• Village/ City
• Land types
• Location Level 1
• Location Level 2
• Location Level 3
• Location Level 4
• Range From   If rate is to be checked for survey numbers within range
• Range To
• Usage Main Category

- Usage Sub Category
- Usage Sub Sub Category
- Property item
- Property Rate
- Property Measurement Unit
- Effective Date
- Financial year
- Rate for : Market rate / Ready Reckoner rate

Post Condition

The creations and pupations of rate chart values can be done using this function & then made available to NGDRS.

FN0108: Creation of property items for valuation

Pre-requisite – The user should have his user id & logged in.

Purpose –To store item list which are required for property valuation.

Description –User can add items as per requirement. Items are car parking, construction area, FSI, Floor number, Tenant rent, non cultivated land area, coconut trees, mango trees, cashew nut trees etc. These items will be available at the time of collection of information of property details, ultimately used for valuation.

Property items are items required while calculating the property value.
• Different items are required for different rules.
• User can create List of the items .
• Items will be mapped with rules.
• Land area, Built area, FSI, Total rent, Area occupied by tenant are few examples

Post condition

The creations and pupations of property items can be done using this function & then made available to NGDRS.

FN0109: Valuation rule formation

Pre-requisite – The user should have his user id & logged in.

Purpose –To store rules with conditions and formulas which are required for property valuation.

Description –User can add rules as per requirement of the state. These rules will be available at the time of valuation. Rules, when applied, will use location wise usage category wise rates from rate chart.

Valuation rules will take care of conditions & formula dependent upon property item values & dependency attributes like depreciation, construction type, road vicinity & dependent locations
• Location, usage category & land types are to be considered for rule creation

- Depreciation & construction type would be considered separately.
- Rules will be mapped with property items .

Post conditions

The creations and pupations of valuation rules can be done using this function &then made available to NGDRS.

Rule formation Example

How to define rule for valuation of Residential building with Tenant	
Usage Type	Non Agri. Open & Built Land Residential building with Tenant
Construction Type	RCC Pucca
Age	2 to 5 years
Property items Land area-----------------------**A** FSI------------------------------**B** Area occupied by tenants---**C** monthly rent by tenant -----**D** area occupied by owner-----**E** Rate --------------------------RRR	These are valuation property items required at the time of calculation. These items are linked with usage type Non Agri. Open & Built Land Residential building with Tenant
Rule	
Condition 1	C > A*B
Formula 1	16*7*D
Condition 2	C < =A*B
Formula 2	(16*7*D)+(A*B-C-E)*RRR*.95

FN0110: Linking of Property items with Usage category and Valuation rule

Pre-requisite – The user should have his user id & logged in.

Purpose –To link property items to usage category and valuation rules.

Description –User can select property items and link with rule as per requirement. This linkage will be available at the time of valuation. The items which are linked with rule will be displayed at the time of valuation after selection of usage category and rule.

Usage Category	Description
- Main Category	- Non-agriculture Open & Built
- Sub Category	- Residential
- Sub Sub Category	- Old residential building with tenants
- Rule name	- Non-agriculture Open &Built - Old residential building with tenants
- Items	- Land area - F.S.I - Built area - Total rent

Post Condition

The creations and pupations of above linking can be done using this function & then made available to NGDRS.

FN0111: Stamp Duty Fee Rule formation

Pre-requisite – The user should have his user id & logged in.

Purpose –To define rules for calculating fees towards Stamp duty, Registration, LBT, Surcharge etc.

Description –User can add fee rules as per requirement. Rules will be defined for each fee type. Rules will take care of conditions & formulas depending upon fee types/ account heads. User can select Village/ City, fee account head, fee items & articles required for the calculation of stamp duty & fees at the time of registration.

Fee is dependent upon
• Article number under which fee account head is chargeable
• Property within Municipal area/Panchayat area
• Fixed percentage of Market value/Sale value
• Fixed amount
• Slab/Range dependent: Percentage of Market value/ Sale value within some ranges/slabs
• (Conveyance deed : Upto 25 Lakhs – 6% Stamp Duty fee, Above 25 Lakhs - 7 % Stamp Duty fee).
• Period slots
• (Leave License : Period slots like 4% rent value : 1 to 5 Years , 5 to 10 years)
• Number of shares & face value for shares

Stamp duty Rule formation Example

How to define rule for stamp duty calculation for new flat purchase	
Article	Sale Deed or Agreement of sale.
Administrative block	District / Block
Local Governing body type	Nagar Parishad/Corporation
Local Governing body	Pune Municipal Corporation
Minimum Value	
Fee items	Market Value-----------------**A** Agreement Value -----------**B** Area of the flat --------------**C** Under construction----------D Stamp Duty--------------------E LBT------------------------------F VAT-------------------------------G Registration Fee--------------H
Rule for Stamp Duty	
Condition 1	If Market Value > Agreement value then
Formula 1	Stamp duty = Market value * .05,

Condition 2	If Agreement Value > Market value then
Formula 2	Stamp duty = Agreement value * .05
Rule for Registration fee	
Condition 1	If Market Value > Agreement Value
Formula 1	Registration fee = Market value * .01
Condition 2	If Agreement Value > Market value then
Formula 2	Registration fee = Agreement value * .01
Condition 3	IF Registration fee < 30000 then Registration fee Else 30000
Rule for LBT as per	Local Governing body type/body
Condition 1	If Market Value > Agreement Value
Formula 1	LBT = Market value * .01
Condition 2	If Agreement Value > Market value then
Formula 2	LBT = Agreement value * .01
Rule for VAT as per	Under construction
Condition 1	If Market Value > Agreement Value
Formula 1	VAT = Market value * .01
Condition 2	If Agreement Value > Market value then
Formula 2	VAT = Agreement value * .01

Post Conditions

Creation of Rules for fee calculation can be done using this function & then made available to NGDRS.

FN0112: Stamp duty/ Registration fee exemption rules

Pre-requisite – The user should have his user id & logged in.

Purpose –To define rules for providing exemptions while calculating fee towards Stamp duty, Registration, etc.

Description –User can select rule of fee exemptions as per the Act applicable in the state/UT. Rules will be defined for each type which will take care of conditions & formulas. Special orders/ notifications are issued in this regard from time to time by the State Government under the Indian Stamp Act.

Configuration option will be provided to select all types of Exemptions to be handled during valuation, stamp duty and registration fee calculation process. Exemptions/ concessions may depend upon:

- Party type
- Usage of Property
- Article

- Example :
- If executor/party is Construction Company or Government Body or Development Authority who is building the property
- Certain Articles such as leave and license, gift deed, transfer/ release deed, partition deed, Government notified documents such as security/ penalty bonds, mortgage bonds, Investor clause Article under 5-G-A-2 considering particular period

- Property usage as say school for tribals
- Party category as tribal/ non tribal, farmer, male/ female, blood relative, unemployed, Government/ non Government party
- Notified Government schemes like Mahadalit

Post Conditions

Creation of fee exemption rules can be done using this function & then made available to NGDRS.

FN0113: Registration configuration options

Pre-requisite – The user should have his user id & logged in.

Purpose –To configure the provisions which will be included during registration process.

Description –A list of desirable provisions will be displayed. User can select among these as per the state requirement. . Configured processes/items will be available for registration.

Configuration option will be provided to select the required provisions as below
• Online time slot booking system Appointment as a mandatory procedure - Yes/ No
• Selection of State specific Authority who will finalize or publish Rates
• Format of all types of system auto generated numbers (token/ document/ file number)
• Payment mode selection (Online/Offline/both)
• Valuation compulsory (Yes/No)
• Acceptance of delayed presentation of document - Yes/ No ; If Yes, Period to be specified.
• Acceptance of Documents executed outside India - Yes/ No
• Stamp duty adjustment - Yes/ No; If Yes, Record keeping of Stamp duty adjustment - Yes/ No
• UID eKYC Identification - Yes/ No
• Verification of PAN details - Yes/ No
• Biometric identification of parties (Capturing of Photo & Thumb impression) - Yes/ No
• Biometric identification of identifiers (Capturing of Photo & Thumb impression) - Yes/ No
• Verification of Party name from Land Record/ Corporation - Yes/ No
• Display of Record of Rights (ROR) to party - Yes/ No
• Fetching of Land Area related information from Land Record - Yes/ No
• Exporting data to Land Records for mutation - Yes/ No
• Correction procedure of record of registered document - Yes/ No
• File format types for preserving registered documents
• Document execution time ideal period (e.g. 20 minutes)
• Document search : Free/Paid/Both
• Entire stamp duty payment compulsory before presentation
• Prohibited property : Reject/Alert

Post Conditions

Creation of registration configuration can be done using this function & then made available to NGDRS.

FN0114: Defining Concurrent Jurisdiction

Pre-requisite – The user should have his user id & logged in.

Purpose –To define concurrent jurisdiction for registration process

Description – Concurrent jurisdiction is allowed within city sub registrar offices. If Sub registrars have same jurisdiction for registration of document, then documents can be registered at any of the SRO offices. Concurrent jurisdiction will be available at the time of registration.

Type of Jurisdiction as follows
• As per Sub-Registrar • One or more circles to Sub-Registrar • District HQ SR • District wise • Within city • Sub district wise
State wise concurrent jurisdiction is also possible using configuration

Post Conditions

Creation of concurrent jurisdiction can be done using this function & then made available to NGDRS.

FN0115: Registration endorsement steps

Pre-requisite – The user should have his user id & logged in

Purpose –To store the sequence of executing stamp endorsement steps during registration process.

Description –User can define number of stamp endorsements with activities. User can select the number of stamp endorsements to be involved while registering the document as per the state requirement. Facility will also be provided to set the sequence in which these endorsements should be executed.

Stamp Endorsements	Process	Description
Stamp1	Presentation	To checks execution date, calculate Market value, calculate SD as per SD rules & amendments at local state, check SD Payment, verify the payment in case of online payment.
Stamp2	Payment acceptance	To accept payment, Receipt, Summary 1 report, defaces e-payment; send SMS to party on registered mobile number. To generate Document number
Stamp3	Admission	To capture party photo and thumb impression, verify party's thumb with UID eKYC authentication.
Stamp4	Identification	To capture photo and thumb impression of identifier, verify identifier thumb with UID server. And generate Summary 2 report with photos and thumb impression
Stamp5	Final registration	To complete registration process, store date time, generate Index1, index2, index3 or index4 reports as per article.

Post Conditions

Creation of sequence of stamps   can be done using this function & then made available to NGDRS

FN0116: Rate Chart Main Information

Pre-requisite – The user should have his user id & logged in.

Purpose –To store the main information about rate chart.

Description –Rate chart main information is the information about rate chart i.e., financial year, developed land type wise unit of rate declaration. Category of rate i.e., (carpet rate, built up rate, super built up rate)

Main Information   about rate chart
• Financial year • Effective date • Developed land type (Urban/Rural/Influence ...) • Rate unit (sq feet/sq meter/ ..) • Rate category (super built up/carpet / built up...)
• Periodicity for maintenance or updating of Rate chart (Ready Reckoner, Market Value Guidelines) to be fixed. This may be set different for urban rates and rural rates. The same may also be revised as and when required. Periodicity of rates may vary from one year to five years.

Post Conditions

Creation of main information about rate chart   can be done using this function & then made available to NGDRS.

M02: User Management

FN0201: Create office shift, hierarchy, office details & employee

Pre-requisite – The user manager should have his user id & logged in.

Purpose – To add employee & office details.

Description: This module will take care of office creation, employee creation & user roles & user creation.

Office has shift & hierarchy & employee has office.

Sr. No.	Action	Description
1	Creation of shift details	Working hours of registration office across the state/UT.
2	Create Office hierarchy	Define office hierarchy
3	Create office	Add office details with hierarchy, address and contact details & shift details.

4	Create Employee	Name, Code, Contact address, mobile no., email, office & reporting employee.

Post Condition:

This function is used to store office shift details, office hierarchy, office, and employee & make it available to NGDRS.

FN0202: Creation of application modules, user roles & assign function permissions to roles

Pre-requisite – The user manager should have his user id & logged in.

Purpose – To define   application modules , user roles & functions & to link roles to modules   & functions.

Description: This function is required to create application modules like, public data entry, valuation, and registration & to define roles as SRO, JDR, IGR, Citizen etc. Functions are to be linked with roles like user creation function is to be allocated to administrator under user management module.

Sr. No.	Action	Description
1	Create Application modules	List of application modules
2	Create Roles	List of user roles which will be assigned to user
3	Create Function list	List of functions i.e. Actual functionality provided in the application.
4	Assign function and application to role	Link application and function to role.

Post Conditions: Function will help store list of application modules, user roles, and functions, linking of functions to roles & linking roles to application modules & make it available to NGDRS

FN0203: Creation of users & assign roles to users

Pre-requisite – The user manager should have his user id & logged in.

Purpose – To create internal users & assign user roles to user.

Description: User can have multiple roles. User manager can assign roles to user.

Sr.No.	Action	Description
1	Create users	Create user with employee id , other details such as contact details.
2	Assign role	Assign roles to user. Multiple roles are assigned to user.

Post Conditions: Function will help store list of users & linking of roles to users & make it available to NGDRS

FN0204: User biometric registration for login for specific roles as SRO

Pre-requisite – The user manager should have his user id & logged in.

Purpose – To register the user for biometric authentication based login for SRO or any particular role.

Description: For some crucial roles additional security is required. Password & biometric authentication is provided. This functionality can be assigned for particular role like SRO. For authentication user has to register for biometric use.

Sr.No.	Action	Description
1	Enter User name	User name of SRO/ Other is to be entered..
2	Capture thumb impression	Capture thumb impression of SRO/Other user & save

Post condition: Function will help store list of users having biometric authentication & make it available to NGDRS

FN0205: User activate/deactivate with duration

Pre-requisite – The user manager should have his user id & logged in.

Purpose – To activate/deactivate user at any time.

Description: Activation may default at the time of user creation. But for some user roles access to the system will   be for some limited period. User will be deactivated automatically. With the help of this function user can be re-activated. If any problem with particular user then it can deactivated using this function.

Sr.No.	Action	Description
1	Enter User name	User name is to be entered.
2	Activate/Deactivate	Select Activate or Deactivate
3	Period	In days or from & to date

Post condition: Function will help store list of users with activation/deactivation status with date & make it available to NGDRS

FN0206: SRO Charge Handover

Pre-requisite – The user manager should have his user id & logged in.

Purpose – To handover the charge of SRO for temporary period or permanent.

Description: Charge handover is required in leave period of SRO or transfer from one office to another. This function will help to activate & deactivate the SR Office login

Sr.No.	Action	Description
1	Enter User name	User name is to be entered.
2	Deactivate	Select Deactivate
3	Type of Handover	temporary period or permanent
4	From & To dates	Period
5	Office	Transferred office code

Post Condition: Function will help store list of users with deactivation status with date & make it available to NGDRS

FN0207: SRO Joining

Pre-requisite – The user manager should have his user id & logged in.

Purpose – To take the charge of SRO for temporary period or permanent.

Description: SRO can take temporary charge of the office in the leave period of another SRO.

SRO can take charge after transfer from one to another office.

Sr.No.	Action	Description
1	Enter User name	User name is to be entered..
2	Activate	Select Activate
3	Type of Charge	temporary period ore permanent
4	From & To dates	Period
5	Office	Transferred office code

Post Condition: Function will help store list of users with activation status with date & make it available to NGDRS

FN0208a: User Login

Login is based on authentication type.

Pre-requisite –   User should have login credentials & user is activated.

Purpose –   To access the system

Description –   This function will give the access to NGDRS.

	Description
User Name	Preferred user name by citizen
Password	Password received at the time of registration
Captcha Image	Enterable Code from displayed image.

Post Condition: Function will help to access the system & show the functions as per assigned roles to the user & make it available to NGDRS

FN0208b: Sensitive User Login

Login is based on authentication type. For sensitive user login biometric authentication will be ad-on security over user name & password.

Pre-requisite –   User should have login credentials & user is activated.

Purpose –   To access the system

Description –   This function will give the access to NGDRS.

	Description
User Name	Preferred user name by departmental user.
Password	Password received at the time of registration
Captcha Image	Enterable Code from displayed image.
Biometric thumb	If authentication type is Biometric device then thumb impression
	If valid user : Successful login

Post Condition: Function will help to access the system & show the functions as per assigned roles to the user & make it available to NGDRS

FN0209:   Forgot password

Pre-requisite –   User should have login credentials & user is activated.

Purpose –   To guide the user how to reset his password

Description –   The user logs in to the system by entering the user ID and password. But sometimes it may happen that the user had forgotten the password. The system does not allow the user to login the system. So the facility to reset the password is provided.

	Description
User Name	Preferred user name by citizen
Hint question	Will be displayed
Hint	Answer is to be entered
	If valid answer : password will be sent on OTP

Post condition

User will receive the OTP on registered mobile. After entering OTP user can reset the password. Once the password is reset, after entering the same, login will be successful

FN0210:   Change password

Pre-requisite –   User should have login credentials & user is activated.

Purpose – To allow the user to change his password for the same username.

Description – The user logs in to the system by entering the user ID and password. If he desires, he can change the password and set a new one. This option can be used only if he knows the current password.

	Description
User Name	Preferred user name by citizen
Old password	To be entered to verify the current password
New password	Old password to be replaced with new password
Confirm password	New password to be retyped in order to confirm it

Post condition

User will be able to change his existing password which he would be able to use for future logins.

M03: Administration

FN0301: Year Initialization process

Pre-requisite – The user should have his user id & logged in.

Purpose – To add new processing year, set current year and select all counters which will be required to reset before starting registration process for the New Year.

Description – User can add current year and select the counters as given below as applicable to the state. These counters will generate the sequential numbers during various processes in the system.

Entry of new year and initialising various counters before starting the registration process in the new year can be done using this option
Counter reset frequency : Yearly Counters: • Document Entry Token Number • Document registration Number • Application Number • Receipt Number • File number • Certificate Number • Book Number • Time Slot Number
Higher authority can be reset counters as & when required.

Post Condition: Function will help to reset the counter values, will increment counter values for each & every transaction as required & will reset at the start of the new year .

FN0302: Developed Land Types

Pre-requisite – The user should have his user id & logged in

Purpose – To store list of developed land types to be used during village/ city mapping

Description – Three developed land types are made available. User can add new type as per the requirement.

Developed land types are required during rate entry and valuation rule formation
• Urban
• Rural
• Influential

Post Condition: Function will help store list of developed land type & make it available to NGDRS

FN0303: Local governing body with category

Pre-requisite – The user should have his user id & logged in.

Purpose – To store list of local governing bodies & category of the local governing body which is to be linked with village/ city.

Description – User can select Local governing body while mapping village/ city with applicable Administrative block levels. Some of the fees/market rates like construction cost vary as per local governing body.

Local governing body is one of the affecting factors for property valuation
• Municipal Corporation/ Zilla Parishad
• Municipal Council/ Taluka Panchayat
• Nagar Panchayat/ Village Panchayat
• Local governing body name

Post Condition : Function will help store list of Local governing body with category & make it available to NGDRS.

FN0304: Property Dependency Attributes

Pre-requisite – The user should have his user id & logged in

Purpose – To define the dependency attributes for property usage which affects the rate & required during the valuation process.

Description – Three dependency attributes as given below are defined in the system. Two additional user defined attributes are also made available, if any attribute other than these is required by a state.

Example:

- If construction type is RCC then rate for valuation is little higher than Load Bearing Structure
- If plot is near highway (Road vicinity) then rate is higher.

Dependency Attributes	Description
• Construction type	• RCC Frame, Semi Pucca, Pucca, Kaccha, Asbestos sheet

• Depreciation (Age factor in years)	• 0 to 2, 2 to 5, 5 to 10, 10 to 20, 20 to 30
• Road vicinity	• Near Highway, corner plot

Post Condition: Function will help store list of the property dependency attributes & make it available to NGDRS.

FN0305: Measurement Units

Pre-requisite – The user should have his user id & logged in.

Purpose –To store measurement units as per state specific requirement and also facilitate conversion of these units to a standard system.

Description –All measuring units used in the state would be included and conversion formulas will be provided whenever unit of market rate and unit of purchased property is different. Conversion of area unit from dismal (local area unit) will be taken care in the proposed software.

State specific measurement units are to be added at the time of configuration, if not available in standard list
• National level standard units are to be fixed
• For Rural – Are, Acre, Hectare
• For Urban – Square feet, Square metre
• Meter-Kilogram-Second System
• Decimal System
• Foot-Pound-Second System
• Conversion formulas are to be added by individual states.

Post Condition: Creations and pupations of measuring units can be done using this function & then made available to NGDRS.

FN0306: Major fee account heads

Pre-requisite – The user should have his user id & logged in.

Purpose –To store account detail heads for fee calculation.

Description –User can add list of fee account heads as per requirement. These account heads will be available during fee rule creation and payment of fees at the time of registration.

Major fee types/account heads
• Stamp duty
• Registration fee
• CESS
• LBT
• TDS
• Surcharge

Post Condition: Storing of fee types/account heads can be done using this function & then made available to NGDRS.

FN0307: Document Handling fee types

Pre-requisite – The user should have his user id & logged in.

Purpose – To store various types of document handling charges to be paid by the party under other than Government fee types.

Description – User can create list of various handling charges fee types as per requirement. These will be available during fee rule formation. Provision to add account heads with formulas and dependencies will be made.

Document handling charges fee types
• Copying fee
• Scanning fee
• Preservation fee

Post Condition: Storing of fee types/account heads can be done using this function & then made available to NGDRS.

FN0308: Stamp duty, Registration and other fee items creation

Pre-requisite – The user should have his user id & logged in. Fee account heads are created.

Purpose – To store fee items details for fee calculation.

Description – User can enter items required for the payment of Major fee types & handling charges fees at the time of registration. For example for scanning fee: No. of pages is the fee item.

Fee items are items required while calculating the fees. These items are to be mapped with fee rules. (for copying fee No. of pages is the fee item)
• Different items are required for different rules.
• User can create List of the items .
• Link fee account heads , articles under which document is registered & fee items

Post Condition: Storing the list of items for fee calculation can be done using this function & then made available to NGDRS.

FN0309: Stamp duty payment modes

Pre-requisite – The user should have his user id & logged in.

Purpose – To store various types of payment modes to be used during stamp duty payment.

Description – User can select all types of payment modes as per state requirement. Web services may be provided for verification & defacement of the payments in case of ePayment, eStamp, eSBTR and stamp Papers.

Configuration option will be provided to select payment modes for the state
• Physical stamp paper
• Treasury challan

- Bank Challan
- eStamp
- Simple bank receipt
- Franking
- GRAS like State Government payment gateway
- eSBTR
- Bank Draft
- Cash
- Certificate of collector of Stamps

Post Condition: Storing of stamp duty payment modes can be done using this function & then made available to NGDRS.

FN0310: Counter payment modes

Pre-requisite – The user should have his user id & logged in.

Purpose – To store various types of payment modes to be used during payment at SRO counter.

Description – User can select all types of payment modes as per state requirement.

Configuration option will be provided to select payment modes for the state
• Bank Draft • Cash • Challan • Cheque

Post Condition: Storing of counter payment modes can be done using this function & then made available to NGDRS.

FN0311: Reasons for skipping Valuation

Pre-requisite – The user should have his user id.

Purpose – To store various reasons for which valuation may not be required for specific documents.

Description – User can add list of reasons for which valuation can be skipped. This list would be made available during the registration process.

Valuation may not be required while registering certain documents
• It may be skipped for Government document registration
• It may be skipped where there is exemption on stamp duty or fees for certain documents
• It may be skipped where the document has been adjudicated by Collector of Stamps

Post Condition: Storing of Reasons for skipping Valuation can be done using this function & then made available to NGDRS

FN0312: Article list formation

Pre-requisite – The user should have his user id & logged in.

Purpose –To store list of Articles under which document is to be registered using NGDRS.

Description –User can add/update list of articles as per the state requirement. This list would be made available during the registration process.

All Articles covered under the Registration Act, 1908 and as per the Schedule 1-A of Indian Stamp Act, 1899 will be provided
• List of documents that are compulsorily registered under Section-17 will be provided
• List of documents which are optionally registered under Section-18 will be provided
• Configuration option will be provided to select articles/ document types required for the state
• Whether Valuation is required or not required can be set for each article at this point
• Document execution type for each article can also be selected using this option.
• Few Article names - Adoption deed, Exchange of property, Conveyance, Gift, Lease, Mortgage deed, Power of Attorney, Correction deed, Apartment deed, Leave & License, Will etc.

Post Condition: Storing of article list can be done using this function & then made available to NGDRS

FN0313: Document titles list formation

Pre-requisite –The user should have his user id & logged in, article is to be added.

Purpose –To store local names for the Articles under which document is to be registered using NGDRS.

Description –User can add/update local names for all types of articles under which document is to be registered. This local name would be made available during the registration process and would appear on reports.

Document titles are the local names for Articles.
• Configuration option will be provided to select English and local name which will be used during document title list generation.
• States may store document titles as per the Amendment in Schedule 1A of Indian Stamp Act Or as per the State stamp Act
• There may be multiple document titles for single Article

Post Condition: Storing of document title list can be done using this function & then made available to NGDRS

FN0314: Document execution types

Pre-requisite –The user should have his user id & logged in.

Purpose – To store different types of document execution to be used during registration process.

Description –User can select document execution types during article/ document list formation.

Configuration option will be provided for selecting articles against document execution type.

- Document Execution In India, Outside India, Court decree are the types available
- Execution of document outside India is mainly for Power of Attorney article.

Post Condition: Storing of document execution types can be done using this function & then made available to NGDRS

FN0315: Property attributes

Pre-requisite –The user should have his user id & logged in.

Purpose – To store the attributes of property required during document registration.

Description –Property Attributes are as survey number , city survey number where survey number is unique number given to a specific piece of land in rural area, city survey number is unique number given to a specific piece of land in urban area . User can select the property attributes from the list provided. Different attributes may be applicable for properties under urban and rural areas.

Property attributes may be selected from
• LPC number • Land allotment number • Circle number • Thana number • Mauza number • Plot number • Property Number • Khasra number • Kheawt number • Khatoni number • Old survey number • House number, • Khatiyan number • City survey number
Provision to select multiple properties will be available.

Post Condition: Storing of property attributes can be done using this function & then made available to NGDRS

FN0316: Documents as Proof of Identity

Pre-requisite –The user should have his user id.

Purpose – To store the list of documents that can be accepted as proof of identity.

Description –User can select document types from the list provided as per the state requirement.

Documents as proof of Identity may be
• PAN Card • Driving License • Aadhaar card • Passport

- Voter ID Card
- Bank Passbook
- Any other
- Advocate card

Post Condition: Storing of document execution types can be done using this function & then made available to NGDRS

FN0317: Party types

Pre-requisite –The user should have his user id.

Purpose –To store the list of party types to be used during registration process

Description –User can select party types as per the state requirement.

Party types can be selected from the following standard list
• Claimant • Executants • Identifier • Buyer • Seller • Licensee • Licensor • Donor • Donee • Third party • Lesser • Lessee • Mortgager • Mortgagee • Guarantor • Testator • Agents • Guardian details in case of minor • Attorney details in case of power of attorney

Post Condition: Storing of party types can be done using this function & then made available to NGDRS

FN0318: Party attributes

Pre-requisite –The user should have his user id.

Purpose – To store the attributes of party required during admission process of document registration.

Description –User can select the party attributes from the list provided. These can be marked as mandatory or optional.

Party attributes may include following

- Salutation - Miss / Mrs./ Mr.
- Party name - First name, Middle name, Surname
- Alias name
- Father's/ Husband's name
- Mother's name
- Guardian name with relation
- Age
- Gender
- Occupation
- Address
- Mobile number
- Email id
- UID number
- ID proof - Pan card/ Driving license/ Voter Id/ UID
- Is Government
- Relationship
- Identification marks

Post Condition: Storing of party attributes can be done using this function & then made available to NGDRS

FN0319: Identifier types

Pre-requisite –The user should have his user id.

Purpose –To store the list of identifier types to be used during identification process of registration

Description –User can select identifier types as per the state requirement.

Party types can be selected from the following master list
• Party's own identifier
• Sub-Registrar
• Advocate

Post Condition: Storing of identifier types can be done using this function & then made available to NGDRS

FN0320: Identifier attributes

Pre-requisite –The user should have his user id.

Purpose – To store the attributes of identifiers required during identification process of registration.

Description –User can select the identifier attributes from the list provided. These can be marked as mandatory or optional.

Party attributes may include following
• Salutation - Miss / Mrs./ Mr.
• Party name - First name, Middle name, Surname
• Alias name

- Father's/ Husband's name
- Mother's name
- Guardian name with relation
- Age
- Gender
- Religion
- Occupation
- Address
- Mobile number
- Email id
- UID number
- ID proof - Pan card/ Driving license/ Voter Id/ UID

Post Condition: Storing of identifier attributes can be done using this function & then made available to NGDRS

FN0321: Master code maintenance

Pre-requisite –The user should have his user id.

Purpose – To store master reference files to be used later during registration process.

Description – This provision will be used to store master lists along with their description.

Master lists will be maintained for following
Salutation
Gender
Caste list
Type of files to upload like pdf, tiff etc
Screen/Form Labels in local language

Post condition: Storing of list of master reference files can be done using this function & then made available to NGDRS

FN0322:   Bank branch list formation

Pre-requisite –   User should have login credentials & user is activated.

Purpose – To store the list of branches with bank names.

Description – Bank with branch names and IFSC codes is to be added in the system which will be required during major payment (stamp duty, registration) as well as counter payment towards document handling charges.

Bank with branch names
Bank
Branch

IFSC code	
Address	

Post condition: Storing of bank and branch names can be done using this function & then made available to NGDRS

FN0323: Upload File Category

Pre-requisite –The user should have his user id.

Purpose – To store type of documents that can be allowed to upload

Description – User will be provided with a list of file types which will be allowed to upload at the time of public data entry and registration.

Type of documents to upload
• Identity Proof document
• Fee exemptions proof document
• Registered document

Post condition: Storing of type of documents for upload can be done using this function & then made available to NGDRS

FN0324: Alerts/ messages

Pre-requisite –The user should have his user id.

Purpose – To store master list of alerts/ messages to be displayed to the user while using NGDRS

Description – This is to provide alerts or messages in local language. Local language messages are to be added for each & every alert /message list which is provided in English.

Alert messages   as below
• Invalid login credentials
• Document submitted for registration; Token number is
• Document registered successfully

Post condition: Storing of alerts/ messages can be done using this function & then made available to NGDRS

FN0325: Prohibited Property details

Pre-requisite –The user SRO/DIG/JDR should have his user id & logged in

Purpose – To store the land which falls under any of the prohibited categories using NGDRS.

Description – Law prohibits purchase of certain categories of land. This function is to provide the generation of list of prohibited properties with notification & authority. This will used at the time of registration to check whether land which citizen is intending to buy falls under any of the prohibited categories.

Process is   as below
• Select district, taluka, village , survey number, city survey number
• Notification number with date & authority issued notice to prohibit the property with remark
• Notification number with date & authority issued notice to permit the property for registration with remark

Post condition: Storing of the land details which falls under any of the prohibited categories can be done using this function & then made available to NGDRS

M04: Appointment For Registration

Online time slot booking system facilitates citizens to book the timeslot in registration office as per their choice & availability for property document registration. The timeslot can be booked in this system for shift wise offices also.

FN0401: Holiday list creation

Pre-requisite –The user should have his user id & logged in

Purpose – To configure holiday master so that appointments are given for working days.

Description –This option will be provided to user for creating holiday master as published by the State Government.

• Holiday list will be maintained to be used during online time slot booking.
• Provision will be made to handle public and local holidays .

Post condition: Storing of holidays   can be done using this function & then made available to NGDRS

FN0402: Slot period entry and booking rules

Pre-requisite –The user should have his user id & logged in

Purpose –To enter slot periods and booking rules for facilitating online appointments to the citizens

Description –User can enter shift wise timings available for citizens to visit the registration office for document registration. Slot booking rules can also be framed as per state requirement.

• State specific rules regarding period of time slot can be configured
• Number of time slots can be restricted within shift for a particular office on a particular date
• Restrictions can be put on number of time slots per IP address
• Slot booking rules can be defined with respect to advance booking, priority booking, re-

booking, exclusion of specific articles, etc.

Post condition: Storing of booking slot rules   can be done using this function & then made available to NGDRS

M05: Property Valuation

Configuration manager will login to the system. The Geographical information with hierarchy, location classification & property usage types will be entered as below:

- Mapping of usage category with items
- Rule creation
- Mapping of rule with usage category and items.
- Property valuation

FN0501: Property Inspection for Valuation

Can be used If configured /required.

Pre-requisite – The inspector user should have his user id & logged in. Purpose –To store transaction details of property inspection required for valuation.

Description –User can select village, location and usage category with depreciation and construction type, if required. Rule should be selected. Property items linked with this rule will be displayed for input. Values to be entered and after clicking 'save button, transaction saved message will be displayed. Upload of necessary documents will be provided.

Description	Example
Village/City	Narayan Peth
Main Category	Non-agriculture Open & Built
Sub Category	Residential
Sub Sub Category	Bungalow
Depreciation	10 to 20 years
Construction type	RCC PUCCA
Items	Land area F.S.I Built area
Rule	Group Housing : Residential Bungalow RCC PUCCA
Remark with date	

Post condition: Details will be saved & will be available to NGDRS.

FN0502: Property valuation

Pre-requisite – The user should have his user id & logged in & property inspection is completed if compulsory.

Purpose – To store transaction details while calculating the property value.

Description – User can select village, location and usage category with depreciation and construction type, if required. Rule should be selected. Property items linked with this rule will be displayed for input. Values to be entered and after clicking 'Calculate' button, arrived value will be displayed.

Description	Example
Village/City	Narayan Peth
Location within village	Laxmi road
Usage Main Category	Non-agriculture Open & Built
Usage Sub Category	Residential
Usage Sub Sub Category	Bungalow
Age for Depreciation	10 to 20 years
Construction type	RCC PUCCA
Road vicinity	Near Highway
Items	Land area F.S.I Built area
Rule	Group Housing : Residential Bungalow RCC PUCCA
Calculated Value	Arrived value to be displayed

Post condition: Calculation of property value can be done using this function & then made available to NGDRS.

FN0503: Stamp Duty Calculation

Pre-requisite – The user should have his user id logged in & valuation is completed & estimated value is available.

Purpose – To store transaction details while calculating the Stamp duty & fee value.

Description – User can select village, enter Market/Sale value, select Article, and enter values of fee items. Fee items linked with this rule will be displayed for input. After clicking 'Calculate' button, arrived value will be displayed.

Input/ Output	Description
• Village/City	• Select village/ city
• Article	• Select Article
• Fee Items	• Enter Market/ Sale value
	• Enter no. of shares
	• Enter face value of shares
• Calculate	• Calculated account head wise stamp duty & fees will be displayed

Post condition: Calculation of the stamp duty & other fees can be done using this function & then made available to NGDRS.

M06: Public Data Entry

Provision to enter the details of the document by citizen to expedite the process of registration. This is optional process but may be compulsory for online slot booking.

FN0601: Citizen User Registration

Pre-requisite – Citizen is not logged in.

Purpose –To store citizen's primary information to allocate the access to the system. Citizen authentication is necessary before permitting the access to the system. Citizen should have mobile phone access, valid identity proof like, UID, Pan Number and Driving License

Description –User is requested to enter preferred user name & password with address & contact details. If user name is available user name will be allocated to citizen using OTP. User will be valid for limited period say one month. Using this login credentials citizen can access the system to enter document details.

	Description
Name	First Name, Middle Name , Last Name , salutation
Address	Building name, Street locality, City, Pin code, State, District, Taluka
Contact Details	Email id, Mobile number, Id proof like Pan number, UID
User Name & password	Preferred user name, password

Post condition: The citizen registration can be done using this function & then made available to NGDRS.

Document entry : Citizen Pre-Registration Activity

Pre-requisite – Citizen is logged in.

Purpose – To create new document for registration

Description –Document entered by user & which is not registered or in-complete document will be available for updating. User can enter new document details.

Citizen will enter following details.

- General information entry - token number generation
- Property details
- Party details
- Witness details
- Property Valuation details
- Stamp duty calculation
- Stamp duty payment details
- Slot Booking
- Final submission of document

FN0602: General Information entry – token number generation

Pre-requisite – Citizen is logged in.

Purpose – To select Article under which document is to be registered.

Description - This function is provided to facilitate entry of general details of document.

	Description
Language selection	Local language selection; if multiple local languages are configured, then define one language as local language for particular document.
Old document reference	Old document number, date to make available party details to minimize data entry efforts.
No. of pages	No. of pages of document to be registered.
Article	• Mortgage Deed • Conveyance Deed • Exchange Deed • Sale Deed • Gift Deed • Settlement Deed • Lease Deed • Relinquishment Deed • General Power of Attorney • Special Power of Attorney • Will & Others
Document title	Agreement to sale, Adoption deed, Authority to adopt
Presenter type	Seller /Executor --Purchaser/Buyer/Executor
Article dependent user defined fields	If Article is leave & license then start & end date of Agreement i.e period , if Lease then the period of lease
Execution type	Document executed In India/Outside India/ Court Decree
No. of times document is registered.	1st time registration/ 2nd time registration (Only number is to be entered)
Entry date	Default current date

Post condition: To enter the data required for article and general detail entry of document, this function is provided. Token number is generated.

FN0603: Property Details

Pre-requisite – Citizen is logged in & token number is al-ready generated.

Purpose – To enter property details.

Description - This function will facilitate entry of area category, location category, address block and various other attributes of property as given below. Compound Registration option will also be provided for cases where single sale deed handles multiple properties (More than one location and more than one property in the same registration).

	Description
Single property registration / Compound registration	
Token number Token number assigned at the time of general information entry	
Village/City	Select District Select Taluka Select Village Corporation class if required.
Location selection	Land Type Select location level &then its value from the list.
Unique Property number	Unique Property number decided by local governing body/ state
Usage Category	Main usage/ Sub Usage /Sub Sub usage/
Survey number attributes	Survey number , City survey number, Khasra number, Kheawt number
Type of construction	RCC, Load Bearing Structure
Address Block	Flat number, floor number, building number etc., as per state address block rule
Built Area	Built Area of property with units (units from unit master) & category of area like built up area/carpet area/super built up if location is urban
Land Area	Area of open Land with units (units from unit master (If in configuration 7/12 is compulsory then fetch area from ROR data & compare/cross check)
Other details	Any other details
user defined property items	Any other user defined property items like Covered parking, Non cultivated land , open parking , floor number,
Office	Office where document to be registered.

Post condition: To save the property details, this function will be provided.

FN0604: Party Details

Pre-requisite – Citizen is logged in & token number is al-ready generated.

Purpose – To enter party details

Description - This function will facilitate entry of party details as given below:

	Description
Multiple party for single registration (Assumption)	
Token number	• Token number assigned at the time of general information entry
Party Name	• Salutation • First name

	• Middle Name • Last Name (Behavior) • (If in configuration 7/12 party names are compulsory then fetch from ROR data)
Party Type	• Seller/Executor, Purchaser/Buyer/Executor , Advocate
Capacity	Individual/Company
Party sub Type	• Stamp purchaser • presenter • Bank
Party Government category	• Government/Non Government
Is executor	• Yes/No
Address block, contact details	• Address block & contact details as decided/configured by state.
Age, Gender	
Identification marks	
UID number	
Identification proofs	• Aadhaar, Pan card, Driving License
Identification related Information	• Number of Identification proof selected
Upload ID proof	• Upload document related with ID proof.

Post condition: To save the party details, this function will be provided.

FN0605: Identifier Details

Pre-requisite – Citizen is logged in & token number is al-ready generated.

Purpose – To enter Identifier details.

Description - This function is provided to capture following witness/ identifier details.

	Description
Multiple witnesses/ identifiers for single registration (Assumption)	
Witness/ identifier Type	• SRO/Individual : To fetch name of SRO from SRO master
Witness/ identifier Name	• Salutation • First name • Middle Name • Last Name (Behavior)
Address block, contact details	• Address block & contact details as decided/configured by state.
Age, Gender	•
• Identification marks	
• UID number	
Identification proof	• Aadhaar, Pan card, Driving License
Identification related Information	• Number of Identification proof selected
Upload ID proof	• Upload document related with ID proof.

Post condition: To save the witness details, this function will be provided.

FN0606: Property Valuation details

Pre-requisite – Citizen is logged in & token number is al-ready generated.

Purpose – To estimate property valuation amount.

Description - Enter token number and receive market/sale value from valuation.

	Description
Property valuation	• Enter token number • Select rule. • Enter values of items like land area, construction area, parking , floor etc related with rule • Click estimate button • Valuation amount will be displayed.

Post condition: To save the market value/arrived value for property, this function will be provided.

FN0607: Stamp Duty calculation/ verification

Pre-requisite– Citizen is logged in, token number is al-ready generated and calculated estimated valuation amount

Purpose– To calculate stamp duty for market/sale value

Description - Enter market/sale value received from valuation and calculate relevant stamp duty to be paid considering exemption rules.

	Description
Stamp Duty Calculation	• Enter token number, • Select stamp duty rules. • Check exemptions. • Calculate stamp duty , • Calculate registration fee. • Check whether fee payment adjustment is required. • If adjustment is to be done then • Old document number, old document date

Post condition: To save the account head wise calculated values with exemption & adjustment, this function will be provided.

FN0608: Stamp Duty payment details

Pre-requisite – Citizen is logged in, token number is al-ready generated, calculated estimated valuation amount & stamp duty fee is calculated.

Purpose – To store the stamp duty paid details

Description- After verifying the correctness of property valuation and calculation of stamp duty, this function is provided to enter payment details

	Description
Multiple times payment to be considered	
Stamp duty payment	• To deposit amount of fee calculated using mode of payment available. Check whether online payment is done as per configuration. Is there any interface for payment, if not payment at SRO office. • Stamp duty Payment details: • Government payment gateway if configured, challan number , date , amount • Type of payment, number, date, amount. • After successful operation transaction number will be displayed/ received.

Post condition: To save the stamp duty payment details, this function will be provided.

FN0609: Slot booking

Pre-requisite – Citizen is logged in, token number is al-ready generated, and calculated estimated valuation amount & stamp duty fee is calculated and paid (as configured at state level)

Purpose – To facilitate citizens to book the suitable time slot for property document registration.

Description –This provision will allow citizens to take an appointment in the registration office under concurrent jurisdiction. The Sub Registrar officer can also view the timeslots booked for his office.

Online slot booking can be done by citizens considering slot availability at desired SR office.
• Valid document token number will be required for booking the desired time slot.
• Jurisdiction type to be checked - SRO wise/ District wise/ within city/ any other

Post condition: To save slot booking details, send alert to citizen, display current slot bookings for SRO, this function will be provided.

FN0610: Final Submission of Document

Pre-requisite – Citizen is logged in, token number is al-ready generated, calculated estimated valuation amount & stamp duty fee is calculated and payment as per configuration.

Purpose – To submit the document which is entered by citizen.

Description - This function marks the completion of document submission process by citizen.

Office	**Select office from concurrent Jurisdiction/or default office**
• Finalize the procedure of submitting the document. Citizen will receive the submission token number on SMS.	

Post condition: Document will be ready for further processing after final submission. Document will be available to Registration Officer. Alerts will be sent by SMS.

M07: Registration

As per state requirement, if Public Data Entry provision is not configured or compulsory, then following processes will be completed at SR office.

- General information entry - token number generation
- Property details
- Party details
- Witness details
- Property Valuation details
- Stamp duty calculation
- Stamp duty payment details

These processes are described under M06: Public Data Entry module.

FN0701: Scrutiny of the document & presentation

Pre-requisite – The SRO should have his user id and token number is generated for entered document details.

Purpose – To scrutinize the document submitted by citizen.

Description - This is verification of details entered by citizen/information officer at SRO.

Cross check	Description
• Article • Jurisdiction • Enter execution date • Verify hard copy of document • Market value • Stamp duty fee payment • Delayed acceptance • Prohibited property	• Selected article for document registration • Concurrent Jurisdiction is to be followed. • Execution date considering time limit. • Uploaded document details • Estimated Market Value • If valuation not done, enter reasons & market value • Stamp duty calculation • Stamp duty payment details: entire amount paid verify with payment gateway (if online payment compulsory). • If entire payment is not compulsory accept the document & send for verification to COS. • If any objection document will be rejected with reasons using rejection reasons list. • If document accepted then enter date of execution, date of presentation • If delayed document then why permitted.

Post condition: Document will be ready for further process if verified against all reasons. If not verified will be rejected & handover to citizen with reason.

FN0702: Registration and handling charges payment acceptance

Pre-requisite – The SRO should have his user id and document is scrutinized.

Purpose – To accept registration and other fee at SRO counter.

Description - This is acceptance of registration and handling fee at SRO. Registration fee and handling charges is to be calculated as per rule considering exemptions.

Process flow
• Calculate and accept payment using payment modes (Cash/ DD). • Generate document number • Generate receipt after confirmation of payment received. • Generate Summary-1 report • Send SMS to citizen

Post condition: Handling fee is paid by citizen & receipt is generated.

FN0703: Admission & Identification process

Pre-requisite – The SRO should have his user id and token number is generated for entered document details & all applicable fee payment is done.

Purpose – To identify the party and witnesses for the document submitted by citizen.

Description - This is identification of the parties and witnesses entered by citizen/information officer at SRO.

Steps involved in Identification process
• Verify the party names & enter consent.
• If photo capture device is working capture photo else mark for device not working
• If thumb impression device is working capture thumb else mark for device not working.
• If iris impression device is working capture iris   else mark for device not working
• Verify party's thumb with UID server.
• Admission can be pending if party not present.
• Party can be cross checked   against old document. If data is available.
• Power of Attorney holder details with photo, contact details , address (not as party)
• If home visit is required (particular articles)   Summary 2 printing with   provision to Affix photos & other information

Post condition : Document is admitted for registration & parties & witness are identified.

FN0704 : Finalization of document registration

Pre-requisite – The SRO should have his user id and token number is generated for entered document details.

Purpose – To finalize the registration process and generate document number for the document submitted by citizen.

Description - This is finalization of the registration process.

Process Completion steps as follows
• Completion alert with date time
• Summary-2 & Index-2, Index-3, Index-4 report generation as required.
• Photos & Thumbs will be displayed on reports.
• Document will be signed.
• Document will be signed using digital signature if configured the usage of digital signature.
• Acknowledgement slip will be handover.

Post condition: Document is registered, final document registration number is generated & send for scanning.

FN0705: Scanning, preserving the registered document and handover

Pre-requisite – Document scanner operator logged in

Purpose – To scan a registered document and preserve it digitally and made available for certify Copy on demand.

Description – This function will take care of scanning and preserving of the document.

Document preservation methods are as follows
• Scan & store on server
• Preservation in the format of Book 1, Book 3, Book 4
• Scan & store on local & central server with verification.
• Copy on DVD
• Confirmation mail/sms to party
• Rescan with the permission of authority if necessary (Scan not proper)

File formats used to save documents

- PDF
- TIFF
- Multiple Tiff
- Jpeg

PDF format need to be made standard because digital signature can be done on PDF and also DILRMP has recommended to use PDF-A format

Post condition: Document is scanned & will be saved in accepted format (Pdf, Tiff, pdf-A) uploaded on storage server. DVD will be prepared (if applicable) final copy of document will be handover to citizen.

FN0706: Certified copy of registered document

Pre-requisite – The SRO should log in & document is registered & scanned.

Purpose – To generate certified/authentic copy of registered document.

Description – This function will generate certified copy of registered document.

	Certified copy procedure is as below
• Accept Registered document number and date • Fee calculation • Select & view document	• Application/request for certified copy • fee payment for certified copy. • SRO will search document • SRO will generate copy of document. • Copy will be signed. • Certified copy will be handover

Post condition: Certified copy of document will be handover to citizen.

FN0707: Manual Document Registration

Pre-requisite – SRO should Login

Purpose – To enter details of manually registered documents.

Description – This function will provide facility for manual document registration for any network connectivity problem. Internet connectivity may be poor in many parts of the State, hence an offline module is required using which the documents can be uploaded in batch mode when necessary bandwidth is available.

Manual document registration procedure is as below
• Enter manual registration number • Enter all details party, property, valuation details, payment details, identification details & final registration. • Display system generated document number. • Scan the document & upload files.

Post condition: Document details will be saved in NGDRS & Certified copy of document will be handover to citizen.

FN0708: Record of Registered document correction procedure

Pre-requisite – The SRO should log in.

Purpose – To correct details in Index II of registered documents.

Description – This function will provide facility to correct registered document details

	Document Correction procedure is as below
• Accept Registered document number and date • Fee calculation • Select rectification/ correction deed • Update changes • Scan and upload changed document	• Application for rectification • Correction fee payment • Higher authority permission to allow corrections • SRO/ Authority will change details of document as per requirement • Changes will be approved by higher authority • Index will be updated, generated & signed. • Copy will be handover

Post condition: Document correction details will be saved in NGDRS & Certified copy of document will be handover to citizen.

FN0709: MIS Reports

Pre-requisite – The SRO should have his user id & logged in

Purpose – To generate all reports

Description - This is generation of all reports.

Reports	Description
• Pre-Registration Summary Report	• Presentation details, property details, party details and identifier details after document entry completion
• Receipt Details	• Registration fees, document handling charges, exemption details and date time
• Summary1 Report	• Document title, presenters name, stamp duty fees and registration fees, receipt number, document number, date time, exemption remarks
• Summary2 Report	• Pending document report with photo and thumb impressions of party
• Index1 Report	• Article based Executor name and address details
• Index2 Report	• Article based Property details
• Index3 Report	• Will Article Property details
• Index4 Report	• Adoption deed details
• View payment details	• All fee details
• Daily Day Book/ Cash Book	• Fee collection report
• Partly Registered Document	• Document entered and not registered
• Stamp Duty Exemption Report	
• MIS Reports	
• Land record 7/12 – Apatrak report	• Report to send to ROR department. •

Post condition: Registration related reports & MIS reports will be generated

FN0710: Document Search for department user

Pre-requisite – The SRO should have his user id & logged in.

Purpose – To search document.

Description - This is for search of document for departmental checking, verification or certified copy generation.

Description

• Document number with date	Will display document detail.
• From & To date & executor name	Will display document numbers having executor name. User can select document number from list to display document.

Post condition: Document will be available, can be print if required.

FN0711: Encumbrance Certificate (E.C)

Pre-requisite – The SRO should log in & document is registered & scanned.

Purpose – To generate encumbrance certificate(E.C) of property.

Description – Encumbrance certificate (EC) ensures that there is a complete ownership of the property without any monetary or legal liability. Government authorities and financial institutions like banks usually demand 10-15 years of encumbrance. This function will generate encumbrance certificate(E.C) of registered property.

	encumbrance certificate(E.C) procedure is as below
• Accept Registered document number and date • District , Village/City, SRO • Survey number, Plot Number, Property number, • Fee calculation as per configuration • Period : From & To date • Select & view document	• Application/request for encumbrance certificate(E.C) • fee payment for encumbrance certificate(E.C) • SRO will search details required for encumbrance certificate(E.C) • SRO will generate copy encumbrance certificate(E.C). • Document will be signed. • encumbrance certificate(E.C) will be handover

Post condition: encumbrance certificate(E.C) will be handover to citizen.

M08: Dashboard

Dashboard will help to display the status of registered documents, total collection and office opening timings and other useful information.

FN0801: Display Dashboard

Pre-requisite – The user should have his user id & logged in.

Purpose – To see the dashboard.

Description - This is for display the status of registered documents, Total collection, Registrar offices with daily opening timings.
NGDRS will provide **Operational Dashboard as follows**
By default state: User can select state/district/….

- Contents of Dashboard will be displayed as per hierarchy. Sub registrar will see the display of the records only for his office/concurrent jurisdiction.
- District officer will see the records for entire district.
- IGR will be able to see for entire state.

NGDRS Dashboard Display:

1) Till date (Current date) in current year.

Total Collection	Registered Document
xxxxxxxxxxxxx	xxxxxxxxxxxxxxxxx

2) As on date (Current date)

Total Collection	Registered Document
xxxxxxxxxxxxx	xxxxxxxxxxxxxxxxx

3) Documents status :

Citizen entered	Document Registered	Registration completed within stipulated time(15 min)	Manual Registered Doc count	Documents Scanned	Document Pending for scanning	Document Rejected
xxxxxxxxx xxxx	XXXXXXXX	xxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxx

4) SR Office : Select : State/Division/District/….

SR Offices	Timings	Today's Start Time
xxxxxxxxxxxxx	xxxxxxxxxxxxxxxx	XXXXXXXX

5) Article wise Documents

Documents status :   From date   To Date   Select Article :::

Citizen entered	Document Registered	Registration completed within stipulated time(15 min)	Manual Registered Doc count	Documents Scanned	Document Pending for scanning	Document Rejected
xxxxxxxxx xxxx	XXXXXXXX	xxxxxxxxxxxxxxxxx	xxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxxxxxx	xxxxxxxx

6) Server Status :

Select Month & Year

Server Name	Day 1							Day 30	Day 31
Down time									

**** For all above displays graphs/charts will be provided.

M09: Document Search

Document search facility will be useful for citizens to search the document online. Citizens can check, verify & download the copy of document. There may be free or paid search as per configuration. Search for all documents including registered and those which are pending for registration (unregistered documents & encumbrance documents) will be provided.

FN0901: Online Document Search for citizen

Pre-requisite – The citizen should have his user id & logged in & document details should be available. Search fee is paid if compulsory.

Purpose – To search document.

Description - This is for search of document for citizen checking, verification & to download the copy of document. This will display report of Property wise transactions, Document wise details. There may be two options 1) Free search for limited details 2) Paid Search for all details.

Description	
• Search certificate Type	Document/EC/
• Search Payment Type	Free/Paid
• If paid : Payment Type	Online Government Payment Gateway /NEFT
•	Validate payment (If configured search dependent upon payment)
•	
• Payment details challan number	Enter online payment transaction number
•	Validate payment transaction number
• Enter District, Taluka, Village ,	
• Enter Property detail as property number as Survey no., City Survey number, Plot Number Gat Number,	Will display document detail.
	Will display document number and document details .
• Enter Document number with date	Data may be available in excel
	Download scanned copy of the documents if paid .
•	

Post condition: Document will be available, can be print if required

FN0902: Online Party Name Search for citizen with GPA search

Pre-requisite – The citizen should have his user id & logged in & document details should be available. Search fee is paid if compulsory.

Purpose – To search document.

Description - This is for search of document for citizen checking, verification & to download the copy of document. This will display report of Property wise transactions, Document   wise details. There may be two options 1) Free search for limited details 2) Paid Search for all details.

Description	
• Search Type • Search Payment Type • If paid : Payment Type • • • Payment details challan number • • Enter District, Taluka, Village ,SRO • Enter Party Name • Enter Document number with date	Document/EC/GPA Free/Paid Online Government Payment Gateway /NEFT Validate payment (If configured search dependent upon payment) Enter online payment transaction number Validate payment transaction number Will display Party Names Will display document detail. Will display document number and document details . Data may be available in excel

Post condition: Document will be available, can be print if required

FN0903: Encumbrance Certificate (E.C) for Citizen

Pre-requisite – The citizen should log in & document is registered & scanned.

Purpose – To generate encumbrance certificate(E.C) of property.

Description – Encumbrance certificate (EC) ensures that there is a complete ownership of the property without any monetary or legal liability. Government authorities and financial institutions like banks usually demand 10-15 years of encumbrance. This function will generate encumbrance certificate(E.C) of registered property.

	encumbrance certificate(E.C) procedure is as below
• Accept Registered document number and date • District , Village/City, SRO • Survey number, Plot Number, Property number, • Period : From & To date • Select & view document	•) • System will search details required for encumbrance certificate(E.C) • System will generate copy encumbrance certificate(E.C). • encumbrance certificate(E.C) will be displayed • Available for download.

M10: Case Monitoring

Yearly audit is carried out by Account General(AG)/Internal auditor , DIG or Collector of Stamps (COS) office to review the records in the office of Registration. The selection of the cases is based on random sampling.

 If there is any discrepancy in assessment & levy of stamp duty & registration fee departmental case is filed. Party is informed by post , email & sms.

Party is supposed to be present after sending notice for hearing. discrepancy   in fees paid is solved by competent authority in presence of party. If it is accepted by party, levied difference amount is paid. Receipt is generated. Citizen is able to view the status of the case by entering case number.

FN1001: Case Types

Pre-requisite – The user should have his user id & logged in.

Purpose – To store list of case types which is required to identify the classification of cases.

Description – User can enter case types such as Appeal , Revision, miscellaneous

Case types
• Appeal
• Revision
• Miscellaneous

Post Condition : Function will help store list of case types & make it available to NGDRS.

FN1002: Objection Types

Pre-requisite – The user should have his user id & logged in.

Purpose – To store list of objection types which is required to identify the classification of objections

Description – User can enter objection types such as Under valuation, Misclassification etc.

Objection types
• Under valuation
• Misclassification
• irregular exemption
• in correct rate
• wrong calculation

Post Condition : Function will help store list of objection types & make it available to NGDRS.

FN1003: Case Status

Pre-requisite – The user should have his user id & logged in.

Purpose –To store status of the case from admission to disposal

Description –User can enter case status such as Not on board, On board, etc.

Case status
• Not on board
• On board
• Hearing
• Disposed

Post Condition : Function will help store list of case status & make it available to NGDRS.

FN1004: Case Admission

Pre-requisite – The user / competent authority (SRO/DIG/ COS) should have his user id & logged in. Document no. for checking discrepancy should be available.

Purpose – To store details of case to be re-evaluated for stamp duty and fees which were already paid by citizen.

Description –Re-evaluation is necessary when less stamp duty is paid at the time of registration. This may happen because of under valuation, incorrect calculation.

Case admission process
• Competent authority
• Case no. and type
• Objection type
• Original document no. and date
• Adjudication no., if required
• Respondent details – Name, address, email, mobile number
• Advocate details – Name, address, email, mobile number
• Initial Case status - Not on Board

Post Condition : Function will help to admit the case & will store the case details and make it available to NGDRS.

FN1005: Case Notice

Pre-requisite – The user / competent authority (SRO/DIG/ COS) should have his user id & logged in. Case admission process is completed.

Purpose – To store details of notice sent against the admission of case

Description –Notice is to be sent to the concerned party. Case details and discrepancy should be informed to party.

Case notice generation process
• Case no. and type
• Objection type
• Respondent details – Name, address, email, mobile number
• Advocate details – Name, address, email, mobile number
• Stamp duty paid
• Stamp duty revised
• Contact to
• Hearing date & venue & competent authority (SRO/DIG/ COS

Post Condition : Function will help to send notice to the concerned party & will store the notice details and make it available to NGDRS.

FN1006: Case Hearing

Pre-requisite – The user / competent authority (SRO/DIG/ COS) should have his user id & logged in. Case admission process is completed.

Purpose – To store details of hearing of the cases.

Description – Party should present for the hearing mentioned in notice.   Discrepancy will solved by mutual communication . Revised stamp duty fee will be communicated to the party

Case hearing process
• Case no. and type
• Hearing date
• Hearing venue
• Party Name present for hearing
• Address , contact details
• Stamp duty revised
• Remark
• Next Hearing date/Final Judgment/Forward to upper officer

Post Condition : Function will help the hearing of cases & will store the case hearing details and make it available to NGDRS.

FN1007: Case Judgment

Pre-requisite – The user / competent authority (SRO/DIG/ COS) should have his user id & logged in. Case hearing process is completed. Both parties compromised for revised stamp duty fee.

Purpose – To store details of final judgment of the cases.

Description -Discrepancy   will solved by mutual communication . Revised stamp duty fee will be communicated to the party & accepted by the party.

Case judgment process
• Case no. and type
• Judgment date
• Judgment venue
• Party Name present at the time Judgment
• Address , contact details
• Stamp duty revised
• Final Judgment
• Remark
• Case status change to Final Judgment

Post Condition : Function will help the Judgment   of cases & will store the case final Judgment details and make it available to NGDRS.

FN1008: Difference amount payment & receipt

Pre-requisite – The user / competent authority (SRO/DIG/ COS) should have his user id & logged in. Case Final Judgment   process is completed. Both parties compromised for revised stamp duty fee.

Purpose – To store details of revised fee payment details   of the cases.

Description -Discrepancy   will solved by mutual communication . Revised stamp duty fee will be communicated to the party & accepted by the party. Party will pay the difference amount & receipt will be generated.

Payment process
• Case no. and type
• Judgment date
• Final Judgment
• Stamp duty revised
• Payment details : (Online/Counter payment as per configuration)
• Remark
• Generation of receipt

Post Condition : Function will help the difference amount payment & receipt generation. Payment details will be saved   and make it available to NGDRS.

FN1009: Case Disposal

Pre-requisite – The user / competent authority (SRO/DIG/ COS) should have his user id & logged in. Case Final Judgment   process is completed. Revised stamp duty fee payment is received.

Purpose – To store details of case disposal .

Description -Discrepancy   will solved by mutual communication . Revised stamp duty fee will be communicated to the party & accepted by the party. Party will pay the difference amount & receipt will be generated. Revised stamp duty fee payment is received. Case is to be closed.

Case disposal process
• Case no. and type
• Judgment date
• Payment details : (Online/Counter payment as per configuration)
• Receipt number with date
• Remark
• Case status change to :-Disposed. With date

Post Condition : Function will help the case disposal process & case status will be changed to disposed with date , details will be saved   and make it available to NGDRS.

FN1010: Case monitoring Dashboard

Pre-requisite – The user / competent authority (SRO/DIG/ COS) should have his user id & logged in.

Purpose – To show the status of all cases.

Description – This function will show the details of admitted cases, & status of cases. Will show revenue wise strong cases which are to be considered for early action.

Case monitoring Dashboard
• Admitted Case no. and type
• Status of the case as on board/ Hearing/Judgment /payment/final disposal etc
• Date wise status
• Revenue wise status
• Office wise status

Post Condition: Function will help the monitoring process & which cases are to be considered on priority basis.

M11: Stamp duty and fee calculator

FN1101: Stamp duty & fee calculator

Pre-requisite – The citizen should have his user id & logged in & property value should be available.

Purpose – To help the citizen to arrive at the amount of stamp duty & fees which are to be paid at the time of document registration.

Description - This calculator computes the amount of stamp duty & fees required to be paid for registration of property purchased. Select the city of your choice, enter the value of the property and click on the 'calculate' button. The stamp duty amount to be paid will be displayed in the 'RESULT' box. To calculate duty for a different value/state, erase previous calculation by clicking on the 'Clear' button.

Description	
• District	Select District.
• Taluka	Select Taluka
• Village	Select village
• Local governing body	Select Local governing body
• Article	Select article
• Property value	Enter the value of property arrived using property valuation /consideration amount
•	
• Calculate	Calculated value will be displayed.

Post condition: Calculated value of stamp duty & fees will be displayed.

4.3 Use Cases

Number of Use Cases

Sr. No.	Module Code	Function Code	Description	No of use cases
Configuration Management				
1	M01	FN0101	Local Language selection	5
2	M01	FN0102	Administrative blocks in state	36
3	M01	FN0103	Link Village with administrative blocks	4
4	M01	FN0104	Location classification within village/ city	36
5	M01	FN0105	Address block details for Urban, Rural	8
6	M01	FN0106	Property usage classification	16
7	M01	FN0107	c. Ready Reckoner /Rate chart creation d. Property Item rate chart creation	8
8	M01	FN0108	Creation of Property items for valuation	4
9	M01	FN0109	Valuation Rule formation	8
10	M01	FN0110	Linking of property items with usage category and valuation rule	4
11	M01	FN0111	Stamp Duty Fee Rule formation	8
12	M01	FN0112	Stamp duty / Registration fee exemption rules	8
13	M01	FN0113	Registration Configuration options	4
14	M01	FN0114	Defining concurrent jurisdiction	4
15	M01	FN0115	Registration endorsement steps	4
16	M01	FN0116	Rate chart main information	4
User Management				
17	M02	FN0201	Create office shift, hierarchy , office details & employee	16
18	M02	FN0202	Creation of application modules, user roles & assign function permissions to roles	12
19	M02	FN0203	Creation of users , & assign roles to users	8
20	M02	FN0204	User biometric registration for login for specific roles as SRO.	4
21	M02	FN0205	User activate/deactivate with duration	4
22	M02	FN0206	SRO charge handover	4
23	M02	FN0207	SRO Joining	4
24	M02	FN0208	c) User Login d) Sensitive user login	2
25	M02	FN0209	Forgot Password	2

26	M02	FN0210	Change Password	1
Administration				
27	M03	FN0301	Year initialization process	2
28	M03	FN0302	Developed land types	4
29	M03	FN0303	Local governing body with category	8
30	M03	FN0304	Property Dependency Attributes	20
31	M03	FN0305	Measurement units	4
32	M03	FN0306	Major fee account heads	4
33	M03	FN0307	Document Handling fee types	4
34	M03	FN0308	Stamp duty, Registration and other fee items creation	8
35	M03	FN0309	Stamp duty payment modes	4
36	M03	FN0310	Counter payment modes	4
37	M03	FN0311	Reasons for skipping Valuation	4
38	M03	FN0312	Article list formation	4
39	M03	FN0313	Document titles list formation	4
40	M03	FN0314	Document execution types	4
41	M03	FN0315	Property attributes	4
42	M03	FN0316	Documents as proof of identity	4
43	M03	FN0317	Party types	4
44	M03	FN0318	Party attributes	4
45	M03	FN0319	Identifier types	4
46	M03	FN0320	Identifier attributes	4
47	M03	FN0321	Master code maintenance	4
48	M03	FN0322	Bank branch list formation	8
49	M03	FN0323	Upload file category	4
50	M03	FN0324	Alerts/ messages	4
51	M03	FN0325	Prohibited Property details	4
Appointment for Registration				
52	M04	FN0401	Holiday list creation	4
53	M04	FN0402	Slot period entry and booking rules	4
Property Valuation				
54	M05	FN0501	Property Inspection for Valuation	4
55	M05	FN0502	Property Valuation	3
56	M05	FN0503	Stamp duty calculation	3
Public data entry				
57	M06	FN0601	Citizen User Registration	4
58	M06		Document entry : Citizen Pre-Registration Activity	
59	M06	FN0602	General information entry - token number generation	5
60	M06	FN0603	Property details	4
61	M06	FN0604	Party details	4
62	M06	FN0605	Identifier details	4
63	M06	FN0606	Property Valuation details	3
64	M06	FN0607	Stamp duty calculation/ verification	3
65	M06	FN0608	Stamp duty payment details	3
66	M06	FN0609	Slot Booking	4
67	M06	FN0610	Final submission of document	4
Registration				

68	M07	FN0701	Scrutiny of the document & presentation	4
69	M07	FN0702	Registration and handling charges payment acceptance	4
70	M07	FN0703	Admission & Identification process	4
71	M07	FN0704	Finalization of document registration	4
72	M07	FN0705	Scanning, preserving the registered document and handover	4
73	M07	FN0706	Certified copy of registered document	8
74	M07	FN0707	Manual Document Registration	20
75	M07	FN0708	Record of Registered document correction procedure	8
76	M07	FN0709	MIS Reports	20
77	M07	FN0710	Document search for Department user	9
78	M07	FN0711	Encumbrance Certificate(E.C)	8
Dashboard				
79	M08	FN0801	Display Dashboard	10
Document Search				
80	M09	FN0901	Online Document Search for citizen	3
81	M09	FN0902	Online Party Name Search for citizen with GPA search	3
82	M09	FN0903	Encumbrance Certificate(E.C) for Citizen	3
Case Monitoring				
83	M10	FN1001	Case Types	4
84	M10	FN1002	Objection Types	4
85	M10	FN1003	Case Status	4
86	M10	FN1004	Case Admission	4
87	M10	FN1005	Case Notice	4
88	M10	FN1006	Case Hearing	4
89	M10	FN1007	Case Judgment	4
90	M10	FN1008	Difference Amount payment & receipt	2
91	M10	FN1009	Case Disposal	4
92	M10	FN1010	Case Monitoring Dashboard	10
Stamp Duty & fee calculator				
93	M11	FN1101	Stamp Duty & fee calculator	2 67
			Total	560

Majority of these use cases have standard use cases like create , update , delete, view in addition to functional uses cases.

Selected main Functional requirements are described in the form of UML use cases.

Sr. No.	Use Case
Use Case List	
Configuration Management	
1.	Configure state level administrative blocks (FN0102)
2.	Link Village with administrative blocks (FN0103)
3.	Location classification within village/ city (FN0104)
4.	Rate chart creation (FN0107a)
5.	Item rate chart creation (FN0107b)
6.	Valuation Rule formation (FN0109)
7.	Linking of property items with usage category and valuation rule (FN0110)
User Management	
8.	User Login (FN0208 a)
9.	Sensitive user Log in (FN0208 b)
10.	Forgot Password (FN0209)
Public data entry	
11.	Citizen User registration (FN0601)
12.	General information entry - token number generation (FN0602)
13.	Property details (FN0603)
14.	Party Details (FN0604)
15.	Identifier Details (FN0605)
16.	Stamp duty calculation/ verification (FN0607)
17.	Stamp Duty Payment Details (FN0608)
18.	Slot Booking (FN0609)
19.	Final submission of the document (FN0610)
Registration	
20.	Scrutiny of the document & presentation (FN0701)
21	Admission & Identification process (FN0703)
22.	Finalization of document registration (FN0704)

Use Case Name	Citizen User registration (FN0601)
Primary Actor (A)	Citizen
Secondary Actor (S)	
Description	Citizen Enter Personal details and assigns credential using OTP.
Precondition	Home page is open. Mobile Number is mandatory to receive OTP.

Basic Course of Action (Main Flow)
• Citizen Opens the Home page.   • Selects the Registration Menu available on the Home page   • Enters All Personal details like First Name, Last Name, Address, Email, Mobile No., etc.   • Enters preferred User name and password.   • Submits the information page.   • Alert Message of successful registration will be displayed on the screen   • System generates OTP and send message on registered Mobile No.   • The use case ends

Alternate Flow:	
Title description	**Description**
Preferred User name not available	If Preferred User name not available then message will be displayed. User has to select alternate user name or cancel the process.
Cancel Registration	• The user selects the cancel option. • The system returns the user to the home page without the user being logged in and any information entered has been erased.
Invalid Information Entered	• User clicks submit after entering information system asked for. • System displays information with appropriate message to correct invalid information. User re-enters information.

Post Condition:
Successful Registration alert message is to be displayed.

Title description	**Description**
Success	Success alert message on the screen. OTP via SMS on registered mobile number.
Failure	• Preferred user name not available • Mobile number al-ready used. • Email id al-ready used.

Extension Point:	
Non Functional Requirement	Citizen Registration Should Take Not More than 30 Seconds.
Technology List	Mobile device requires receiving OTP.

Use Case Name	User Login (FN0208 a)
Primary Actor (A)	User
Secondary Actor (S)	
Description	A User of the System logs in to the System.
Precondition	Home page is open with login page displayed.

Basic Course of Action (Main Flow)
• This use case starts when a system user is not logged in to the system and goes to the login page. The System prompts the user for a username and password or register new account • The user enters his/her username and password. • The system validates the entered username and password, making sure that the entered username is a valid username in the System, and that the required password is entered for the entered username. • The user is signed in and returned to the welcome page as a Logged In User. • **The use case ends.**

Alternate Flow:

Title description	Description

User Fails Authentication	If the User entered an invalid username and/or password, the following occurs:
	    • The system describes the reasons why the User failed authentication.
	    • The system presents the User with suggestions for changes necessary to allow the User to pass authentication.
	    • The system prompts the User to re-enter the valid information.
	    • The Basic Flow continues where the User enters new information (see step 2 of the Basic Flow).
	    • Allowed no. of failed Authentication are restricted i.e., 5 failures are allowed

Post Condition: Welcome page access permission enabled for user.
                      Menu options are enabled.

Title description	Description
Success	The User is authenticated and the system displays a home page based on the user type.
Failure	User is unable to log in for one or more reasons.

Extension Point:

Non Functional Requirement	User log in Should not take more than 10 Seconds.
Technology List	--------------

Use Case Name	Sensitive user Log in (FN0208 b)
Primary Actor (A)	Departmental User (Registration Officer)
Secondary Actor (S)	
Description	A user of the System logs in to the System.
Precondition	Home page is open with login page displayed..

Basic Course of Action (Main Flow)

- This use case starts when a system user is not logged in to the system and goes to the login page. The System prompts the user for a username and password or register new account
- The user enters his/her username and password.
- The system validates the entered username and password, making sure that the entered username is a valid username in the System, and that the required password is entered for the entered username.
- If biometric authentication is enforced for particular user, Thumb will be captured.
- The user is signed in and returned to the welcome page as a Logged In User.
- **The use case ends.**

Alternate Flow:	
Title description	**Description**
User Fails Authentication	If the User entered an invalid username and/or password, the following occurs: • The system describes the reasons why the User failed authentication. • The system presents the User with suggestions for changes necessary to allow the User to pass authentication. • The system prompts the User to re-enter the valid information. • The Basic Flow continues where the User enters new information (see step 2 of the Basic Flow). • Allowed no. of failed Authentication are restricted i.e.,5 failures are allowed

Post Condition: Welcome page access permission enabled for user.
Menu options are enabled.

Title description	**Description**
Success	The User is authenticated and the system displays a home page based on the user type.
Failure	User is unable to log in for one or more reasons.

Extension Point:	
Non Functional Requirement	Departmental log in Should not take more than 10 Seconds.
Technology List	Biometric device.

Use Case Name	Configure state level administrative blocks (**FN0102)**
Primary Actor (A)	Configuration manager
Secondary Actor (S)	
Description	A Configuration manager defines administrative levels like division, district, subdivision, taluka up to village within state.
Precondition	Configuration manager logged in.

Basic Course of Action (Main Flow)

- The user selects administrative block level configuration menu.
- Level 1 (State) & Level 3 (District) are compulsory.
- User selects levels using yes/no. button.
- User enters level name & local name. Maximum six levels are allowed in administrative block levels.
- Clicks on save button.
- The use case ends

Alternate Flow:

Title description	Description
Required Field validation	If any of the required fields are not completed, the Configuration manager is informed which required fields are missing. Input focus is returned to the first missing field.
Administrative block Configuration al-ready saved.	If the configuration is already in use, the system informs the Configuration manager that they can update the configuration.

Post Condition: Administrative block level configuration is created. Levels will be created using English & local level language labels.

Title description	Description
Success	Administrative block level configuration/definition is saved.
Failure	Administrative block level configuration/definition not saved.

Extension Point:

Non Functional Requirement	
Technology List	.

Use Case Name	Link Village with administrative blocks .(**FN0103**)
Primary Actor (A)	Configuration manager
Secondary Actor (S)	
Description	A Configuration manager links administrative levels like division, district, subdivision, taluka & developed land type & local governing body with village within state.
Precondition	Configuration manager logged in. All administrative block levels are configured & created. Developed land types are defined. Local governing body list is created with category.

Basic Course of Action (Main Flow)
- The user selects Link Village   menu   - The user selects levels allowed for the state maximum 6 levels..   - Enters village name, local language name for village name.   - Enters developed land type.   - Selects local governing body type.   - Selects Local governing body.   - Enters census code for village.   - Click on save button.   - The use case ends.

Alternate Flow:

Title description	Description
Required Field validation	If any of the required fields are not completed, the **Configuration manager** is informed which required fields are missing. Input focus is returned to the first missing field.
Village al-ready saved.	If the village is already in use, the system informs the **Configuration manager** that they must choose a different name, Else, update the village information.

Post Condition: Village   is created & linked with administrative block levels.

Title description	Description
Success	Village linking with administrative block & developed land type & local governing body is executed.
Failure	Village linking with administrative block & developed land type & local governing body not executed.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Location classification within village/ city .(**FN0104**)
Primary Actor (A)	Configuration manager
Secondary Actor (S)	
Description	A Configuration manager defines location levels within village.
Precondition	Configuration manager logged in. Location lists are al-ready prepared.

Basic Course of Action (Main Flow)	
	• The user selects Locations within Village menu • The user selects location levels for the village. • Selects location level wise item from location level list.. • Click on save button. • The use case ends.

Alternate Flow:	
Title description	**Description**
Required Field validation	If any of the required fields are not completed, the **Configuration manager** is informed which required fields are missing. Input focus is returned to the first missing field.
Village location al-ready saved.	If the village location is already in use, the system informs the **Configuration manager** that they must choose a different name, Else, update the village information.

Post Condition: Village location is created.	
Title description	**Description**
Success	Village location is defined.
Failure	Village location is not defined

Extension Point:	
Non Functional Requirement	
Technology List	

Use Case Name	Linking of property items with usage category and valuation rule (**FN0110**)
Primary Actor (A)	Configuration manager
Secondary Actor (S)	
Description	A Configuration manager defines property usage types within state.
Precondition	Configuration manager logged in. Property Usage types (3 levels) are defined with Dependency attributes. Property valuation Items are defined.

Basic Course of Action (Main Flow)
- The user selects define   Link Property Usage types & items Menu.   - Selects usage types for 3 levels (Main usage category, Sub category, sub sub category).   - Selects dependency attributes for usage category.   - Selects item from list.   - Click on the save button.   - The use case ends.

Alternate Flow:	
Title description	**Description**
Required Field validation	If any of the required fields are not completed, the Configuration manager is informed which required fields are missing. Input focus is returned to the first missing field.
Usage category & item linkage al-ready saved.	If the usage category & item is already in use, the system informs the Configuration manager that they must choose a different name, Else, update the linkage information.

Post Condition:	
Title description	**Description**
Success	Property usage type & item linkage defined.
Failure	Property usage type & item linkage not defined.

Extension Point:	
Non Functional Requirement	
Technology List	

Use Case Name	Rate chart creation (**FN0107a)**
Primary Actor (A)	Configuration manager
Secondary Actor (S)	
Description	A Configuration manager defines property rates.
Precondition	Configuration manager logged in. Property Usage types (3 levels) with dependency attributes are available.

Basic Course of Action (Main Flow)

Action	Response
• The user selects Financial Year. • User selects Rate type i.e., market rate or ready reckoner rate. • User selects Effective date. • User selects District. • User selects Village. • User selects Land Type and Level 1 data from drop down list. • User selects Level 1 list and Level2. • User selects Level 2 list and Level3. • User selects Level 3 list and Level4. • User selects level 4 list • User selects Slab Rate. • User fills Range from and Range to field if slab rate value is yes**.** • User selects Usage main Category. • User selects Usage sub Category. • User selects Usage sub sub Category. • User fills property Rate. • User selects Property measurement unit. • User selects from drop down lists construction type, road vicinity, user defined dependency 1 and user defined dependency 2 Which are dependent upon usage category • User click on Add button.	• Year is to be selected. By default current financial year. • Rate type to be selected. • Effective Date to be entered, by default current date. • • Village Name Drop down list will be visible and fill related villages in drop down list. • Land type and Level 1 drop down list will be visible and fill related data in that list. • Level1 list and level 2 drop down list will be visible and fill related data in that list. If survey no. exists in Level1 list then its last level of that village and after selecting level1 list survey no. will be automatically filled in Range from and Range to field. Level 2 and Slab Rate drop down list will be disabled automatically. • Level2 list and level 3 drop down list will be visible and fill related data in that list. If survey no. exists in Level2 list then its last level of that village and after selecting level2 list survey no. will be automatically filled in Range from and Range to field. Level 3 and Slab Rate drop down list will be disabled automatically. • Level3 list and level 4 drop down list will be visible and fill related data in that list. If survey no. exists in Level3 list then its last level of that village and after selecting level3 list survey no. will be automatically filled in Range from and Range to field. Level 4 and Slab Rate drop down list will be disabled automatically. • Level4 list drop down list will be visible and fill related data in that list. • If survey no. exists in Level4 list then its last level of that village and after selecting level3 list survey no. will be automatically filled in Range from and Range to field. Slab Rate drop down list will be disabled automatically. • By default slab rate value is NO. and Range from and Range to field disable. If its slab rate value select yes, then Range from and Range to field visible. • Range from and Range to field will be filled. • Usage Sub Category Drop down list will be visible and

	fill related Usage Sub Category in drop down list.
	• Usage Sub Sub Category Drop down list will be visible and fill related Usage Sub Sub Category in drop down list.
	• It checks construction type, road vicinity, user defined dependency 1 and user defined dependency 2 flag in table and whichever field flag is Y, that drop down list will be visible to fill otherwise that drop down list disable.
	• Property Rate will be filled.
	• Property unit will be selected.
	• Filled drop down list from construction type, road vicinity, user defined dependency 1 and user defined dependency 2.
	• Data will be saved.

Alternate Flow:	
Title description	**Description**
Required Field validation	If any of the required fields are not completed, the Configuration manager is informed which required fields are missing. Input focus is returned to the first missing field.
Rate al-ready saved.	If the rate is already in use, the system informs the Configuration manager that they must choose a different name, Else, update the rate chart.

Post Condition:	
Title description	**Description**
Success	Property rate chart is defined.
Failure	Property rate chart is not defined.
Extension Point:	
Non Functional Requirement	
Technology List	

Use Case Name	Item rate chart creation (**FN0107b**)
Primary Actor (A)	Configuration manager
Secondary Actor (S)	
Description	A Configuration manager defines valuation item rates. Valuation items are dependent upon usage category like Mango tree rate, cashew nut tree rate, coconut tree rate etc which are not dependent upon market rate/ ready reckoner rates but required for valuation
Precondition	Configuration manager logged in. Property Usage types (3 levels) with dependency attribute is available.

Basic Course of Action (Main Flow)

Action	Response
• The user selects Financial Year. • User selects Rate type. • User selects Effective date. • User selects District. • User selects Village. • User selects Land Type and Level 1 data from drop down list. • User selects Level 1 list and Level2. • User selects Level 2 list and Level3. • User selects Level 3 list and Level4. • User selects level 4 list • User selects Slab Rate. • User fills Range from and Range to field if slab rate value is yes**.** • User selects Usage main Category. • User selects Usage sub Category. • User selects Usage sub sub Category. • User selects Valuation items which are dependent upon usage category. • User fills property Rate. • User selects Property unit. • User fills land Rate. • User fills construction Rate. • User select visible drop down list from construction type, road vicinity, user defined dependency 1 and user defined dependency 2. • User click on Add button.	• Year is to be selected. By default current financial year. • Rate type to be selected. • Effective Date to be entered, by default current date. • Village Name Drop down list will be visible and fill related villages in drop down list. • Land type and Level 1 drop down list will be visible and fill related data in that list. • Level1 list and level 2 drop down list will be visible and fill related data in that list. If survey no. exists in Level1 list then its last level of that village and after selecting level1 list survey no. will be automatically filled in Range from and Range to field. Level 2 and Slab Rate drop down list will be disabled automatically. • Level2 list and level 3 drop down list will be visible and fill related data in that list. If survey no. exists in Level2 list then its last level of that village and after selecting level2 list survey no. will be automatically filled in Range from and Range to field. Level 3 and Slab Rate drop down list will be disabled automatically. • Level3 list and level 4 drop down list will be visible and fill related data in that list. If survey no. exists in Level3 list then its last level of that village and after selecting level3 list survey no. will be automatically filled in Range from and Range to field. Level 4 and Slab Rate drop down list will be disabled automatically. • Level4 list drop down list will be visible and fill related data in that list. • If survey no. exists in Level4 list then its last level of that village and after selecting level3 list survey no. will be automatically filled in Range from and Range to field. Slab Rate drop down list will be disabled

	automatically. • By default slab rate value is NO. and Range from and Range to field disable. • If its slab rate value select yes, then Range from and Range to field visible. • Range from and Range to field will be filled. • Usage Sub Category Drop down list will be visible and fill related Usage Sub Category in drop down list. • Usage Sub Sub Category Drop down list will be visible and fill related Usage Sub Sub Category in drop down list. • It checks construction type, road vicinity, user defined dependency 1 and user defined dependency 2 flag in table and whichever field flag is Y, that drop down list will be visible to fill otherwise that drop down list disable. • Select the item. • Property Rate will be filled. • Property unit will be selected. • Land will be filled. • Construction rate will be filled. • Filled visible drop down list from construction type, road vicinity, user defined dependency 1 and user defined dependency 2. • Data will be saved.

Alternate Flow:

Title description	Description
Required Field validation	If any of the required fields are not completed, the Configuration manager is informed which required fields are missing. Input focus is returned to the first missing field.
Item Rate al-ready saved.	If the item rate is already in use, the system informs the Configuration manager that they must choose a different name, Else, update the rate chart.

Post Condition:

Title description	Description
Success	Valuation Item rate chart is defined.
Failure	Valuation Item rate chart is not defined.
Extension Point:	
Non Functional Requirement	
Technology List	

Use Case Name	Valuation Rule formation (**FN0109**)
Primary Actor (A)	Configuration manager
Secondary Actor (S)	
Description	A Configuration manager defines valuation rules.
Precondition	Configuration manager logged in. Property Usage types (3 levels) with dependency attributes are available. Property usage & items are linked.

Basic Course of Action (Main Flow)

Action	Response
• The user selects main usage category. • User selects sub usage Category. • User selects sub sub usage Category. • User selects multiple rates or multiple arrived values options **Y/N**. • User selects output Item • User selects Division • User selects District. • User selects Corporation Class. • User selects Village. • User Selects Land Type • User selects Max value checks Yes/No • if max value Yes then click on max formula textbox and select Max Parameter and operator. • User click on Condition text box or formula textbox then select parameters and operator**.** • User clicks on save button.	• Mail category list is available to select. Dependent sub category will be available for selection • Subcategory List is available to select. Dependant sub-sub category will be available for selection • Item List is available to select Get Y/N flag for state, district, division, Get Sub-Sub Category Description as Rule Description • If Yes then only two Formula & conditions will be entered and entry in main and sub rule records and above data will be kept and If No Rule saved and continues for second rule (after save button click) • Output item selected • Division Item selects, Dependent District list will be available for Selection • District Item selected, Taluka list will be available for Selection. • Corporation class item selected, Corporation Class list will be available for Selection. • Village item selected, Land type will be available to select. • Land Type Selects • Max value if yes then display Max value formula click on that textbox select items and operators If No then max value formula will be not available. • Create Max value formula. • Condition / formula will create for selected textbox. • Save the data to database. Rule Id will updated in Usage Link Category

Alternate Flow:

Title description	**Description**

Required Field validation	If any of the required fields are not completed, the Configuration manager is informed which required fields are missing. Input focus is returned to the first missing field.
Rule al-ready saved.	If rule is already saved Message will be displayed

Post Condition:	
Title description	**Description**
Success	Rule is defined. If multiple output values then multiple rates or multiple arrived values will be saved.
Failure	Rule not Defined

Extension Point:	
Non Functional Requirement	
Technology List	

Use Case Name	General information entry - token number generation (**FN0602**)
Primary Actor (A)	Citizen
Secondary Actor (S)	
Description	Citizen enters document general information details.
Precondition	Citizen logged in.

Basic Course of Action (Main Flow)

Action	Response
• User selects language. • User enters Old document No./Date. • User enters No. of pages. • User selects article. • User selects document title. • User selects presenter type. • User enters article dependent user defined fields. • User selects execution type. • User enters entry date. • User enters no. of times same is registered	• Language list is available for selection. If multiple local languages are configured for the state during configuration then only one local language is to be selected for particular document. • To fetch party details while entering party details. • No. of pages will be filled for scanning. • Article Drop down list is available for selection article/instrument under which document is to be registered. • Document title drop down list is available for selection. • Presenter type drop down list is available for selection. • It checks for the article dependent user defined fields, if yes then fields are available to enter the details. • Execution type drop down list is available for selection. • Document general information entry date will be filled by default current date . • 1st time registration/ 2nd time registration (Only number is to be entered) • Data will be saved.

Alternate Flow:

Title description	Description
Required Field validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
Document general information details are already saved.	If the document general information details are already exist, the system informs the citizen that they must choose a different document, Else, update the document general information details.

Post Condition:

Title description	Description
Success	Document general information details are defined. Token Number is generated
Failure	Document general information details are not defined.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Property details (**FN0603**)
Primary Actor (A)	Citizen
Secondary Actor (S)	
Description	Citizen enters property details.
	Citizen logged in. Token number is already generated

Basic Course of Action (Main Flow)

Action	Response
• User enters token number. • User selects district. • User selects taluka. • User selects land type. • User selects corporation. • User selects village/city. • User selects location level 1 • User selects level1 list and level2. • User selects level2 list and level3. • User selects level3 list and level4. • User selects level4 list. • User enters unique property number. • User selects usage main category. • User selects usage sub category. • User selects usage sub-sub category. • User enters survey number attribute. • User selects construction type. • User enters address details. • User enters built area. • User enters land area. • User enters other details. • User enters user defined property items. • User selects office.	• Token number in filled which is generated at the time of document general information entry. • District drop down list is available for selection, after district selection dependent taluka drop down list will be available for Selection. • Taluka drop down list is available for selection, after taluka selection dependent land type drop down list will be available for selection. • Land type drop down list is available for selection, after land type selection if land type is URBAN then corporation class and corporation class drop down list will be available for selection. • Corporation class and corporation class list drop down is available for selection. Fill related data in that list. • Village/city dropdown list is available for selection. • Location level1 drop down list is available for selection. Fill related data in that list. • Level1 list and level2 drop down list is available for selection and fill related data in that list. If survey no. exists in Level1 list then its last level of that village and after selecting level1 list further levels will be disabled automatically. • Level2 list and level3 drop down list is available for selection and fill related data in that list. If survey no. exists in Level2 list then its last level of that village and after selecting level2 list further levels will be disabled automatically. • Level3 list and level4 drop down list is available for selection and fill related data in that list. If survey no. exists in Level3 list then its last level of that village and after selecting level3 list further levels will be disabled automatically. • Level4 list drop down list is available for selection and fill related data in that list. • Unique property number which is decided by local governing body/state is filled. • Usage main category drop down list is available for selection and fill related data in that list. Dependent usage sub category drop down list will be available for selection. • Usage sub category drop down list is available for selection and fill related data in that list. Dependent usage sub-sub category drop down list will be

	available for selection
	• Usage sub-sub category drop down list is available for selection and fill related data in that list.
	• Survey number attributes like survey number, city survey number, khasra number, kheawt number are filled.
	• Construction type drop down list is available for selection. Fill related data in that list.
	• Address details are filled like flat no., floor no., building name etc. as per state address block rule.
	• Built area is filled along with area unit. If land type is urban then category of area is available for selection like built up area/ carpet area/ super built up area.
	• Open land area is filled along with area unit.
	• Other details are filled if required.
	• User defined property items like covered parking, non cultivated land, open parking, floor no. etc. are filled.
	• Office drop down list is available for selection. Related office is selected where document is to be registered.
	• Data will be saved.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
Property details are already saved.	If Property details are already exist, the system informs the citizen that they must choose a different document, Else, update the property details.

Post Condition:

Title description	Description
Success	Property details are defined.
Failure	Property details are not defined.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Party Details (**FN0604)**
Primary Actor (A)	Citizen
Secondary Actor (S)	
Description	Citizen enters party details.
	Citizen logged in. Token number is already generated

Basic Course of Action (Main Flow)

Action	Response
• User enters token number. • User enters party name. • User selects party type. • User selects party sub type. • User selects party government category. • User enters address details. • User enters contact details. • User enters age. • User enters gender. • User enters identification marks. • User enters UID number. • User selects identification proof. • User enters identification proof related information. • User uploads soft copy of identification proof.	• Token number in filled which is generated at the time of document general information entry. • Party name is filled in the sequence first name, middle name and last name. • Party type drop down list is available for selection; fill the related data in that list. After selection of party type dependent party sub type drop down list will be available for selection. • Party sub type drop down list is available for selection; fill the related data in that list. • Party government category drop down list is available for selection; fill the related data in that list. • Address details are filled like flat no., floor no., building name etc. as per state address block rule. • Contact details are filled like phone number, email id etc. as per state contact block rule. • Age is filled. • Gender is filled. • Identification marks are filled. • UID number is filled. • Identification proof drop down list is available for selection; fill the related data in that list. • Identification proof information is filled. • Identification proof soft copy is uploaded. • Data will be saved.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
Party details are already saved.	If Party details are already exists, the system informs the citizen that they must choose a different document, Else, update the party details.

Post Condition:

Title description	Description
Success	Party details are defined.
Failure	Party details are not defined.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Identifier/ Witness Details (**FN0605**)
Primary Actor (A)	Citizen
Secondary Actor (S)	
Description	Citizen enters witness details.
	Citizen logged in. Token number is already generated

Basic Course of Action (Main Flow)

Action	Response
• User enters token number. • User enters witness name. • User selects witness type. • User enters address details. • User enters contact details. • User enters age. • User enters gender. • User enters identification marks. • User enters UID number. • User selects identification proof. • User enters identification proof related information. • User uploads soft copy of identification proof.	• Token number in filled which is generated at the time of document general information entry. • Witness name is filled in the sequence first name, middle name and last name. • Witness type drop down list is available for selection; fill the related data in that list. • Address details are filled like flat no., floor no., building name etc. as per state address block rule. • Contact details are filled like phone number, email id etc. as per state contact block rule. • Age is filled. • Gender is filled. • Identification marks are filled. • UID number is filled. • Identification proof drop down list is available for selection; fill the related data in that list. • Identification proof information is filled. • Identification proof soft copy is uploaded. • Data will be saved.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
Witness details are already saved.	If witness details are already exists, the system informs the citizen that they must choose a different document, Else, update the witness details.

Post Condition:

Title description	Description
Success	Witness details are defined.
Failure	Witness details are not defined.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Stamp duty calculation/ verification **(FN0607)**
Primary Actor (A)	Citizen
Secondary Actor (S)	
Description	Citizen calculates stamp duty to be paid relevant to estimated valuation.
	Citizen logged in. Token number is already generated, estimated valuation amount is calculated.

Basic Course of Action (Main Flow)

Action	Response
1. User enters token number. 2. User selects stamp duty rule. 3. User selects exemptions on stamp duty. 4. Calculate stamp duty. 5. Calculate registration fee. 6. User enters old document number. 7. User enters old document date.	1. Token number in filled which is generated at the time of document general information entry. 2. Stamp duty rule list is available for selection; fill the related data in that list. 3. Stamp duty exemption list is available for selection; fill the related data in that list. 4. Stamp duty is calculated relevant to the estimated valuation. 5. Registration fee is calculated. It checks whether fee payment adjustment is required. 6. If payment adjustment is required the old document number is filled. 7. If payment adjustment is required the old document date is filled. 8. Data will be saved.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
Stamp duty fee calculation is already done.	If stamp duty fee calculation is already done, the system informs the citizen that they must choose a different document.

Post Condition:

Title description	Description
Success	Stamp duty fee is calculated.
Failure	Stamp duty fee is not calculated.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Stamp Duty Payment Details (FN0608)
Primary Actor (A)	Citizen
Secondary Actor (S)	
Description	Citizen enters payment details.
	Citizen logged in. Token number is already generated, estimated valuation amount is calculated, stamp duty fee is calculated.

Basic Course of Action (Main Flow)

Action	Response
1. User enters token number. 2. User selects payment type. 3. User enters challan number. 4. User enters challan date. 5. User enters amount.	1. Token number in filled which is generated at the time of document general information entry. 2. Payment type list is available for selection; fill the related data in that list. 3. Challan number is filled. 4. Challan date is filled. 5. Amount is filled. 6. Data will be saved.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
Stamp duty payment details are already saved.	If stamp duty payment details are already saved, the system informs the citizen that they must choose a different document.

Post Condition:

Title description	Description
Success	Stamp duty payment details saved.
Failure	Stamp duty payment details not saved.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Forgot Password (FN0209)
Primary Actor (A)	User
Secondary Actor (S)	
Description	User resets password.
	Username should exist.

Basic Course of Action (Main Flow)

Action	Response
1. User selects forgot password option. 2. User enters username. 3. User enters email-id. 4. User enters mobile no. 5. User enters security questions answer. 6. User enters OTP (One Time Password). 7. User enters new password. 8. User enters confirm password.	1. Page is displayed to reset the password. 2. Username is filled. It checks whether username is correct or not. 3. Email-id is filled. It checks whether username & email-id is correct or not. 4. Mobile no. is filled. It checks whether username, email-id & mobile no. is correct or not. 5. Security questions answer is filled. It checks whether answer is correct or not. 6. OTP (One Time Password) is filled which received on registered mobile no. or email-id. 7. New Password is filled. 8. Confirm password is filled. 9. Data will be saved.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
Password already used.	If password is already used in history, the system informs the citizen that they must choose a different password.

Post Condition:

Title description	Description
Success	New password created.
Failure	New password not created.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Final submission of the document (FN0610)
Primary Actor (A)	SRO
Secondary Actor (S)	
Description	This function is for completion of document submission process by citizen.
	Username should exist. Document is ready.

Basic Course of Action (Main Flow)

Action	Response
1. User selects final submission of the document option. 2. User verify article. 3. User verifies party details. 4. User verifies property details. 5. User verifies valuation. 6. User verifies payment. 7. Submit document.	1. Page is displayed for final submission of the document. 2. Verifies article number. 3. Verifies party details. 4. Verifies property details. 5. Verifies if valuation is done or not. 6. It whether payment is done as per state configuration or not. 7. Final Submission of document is done, submission token number is generated.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
If not within period.	Reject the document.

Post Condition:

Title description	Description
Success	Document is submitted, submission token number is generated.
Failure	Document is rejected.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Slot Booking (FN0609)
Primary Actor (A)	SRO
Secondary Actor (S)	
Description	This provision will allow citizens to take an appointment in the registration office under concurrent jurisdiction.
	Username should exist. Document submission token number is available.

Basic Course of Action (Main Flow)

Action	Response
1. User selects slot booking option. 2. User checks availability. 3. User enters registration number. 4. User enters token number. 5. Book slot.	1. Page is displayed for slot booking. 2. It checks whether time slot is available for booking or not. 3. It checks whether document is old or new. If old document then registration number is filled 4. If new document then token number is filled. 5. Slot booking details are saved, SMS sent to the citizen.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
If not within period.	Reject slot booking.

Post Condition:

Title description	Description
Success	Slot booking details are saved, SMS sent to the citizen.
Failure	Slot booking rejected.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Scrutiny of the document & presentation (FN0701)
Primary Actor (A)	SRO
Secondary Actor (S)	
Description	Verification of details entered by citizen/information officer at SRO office
	Username should exist. Document is ready.

Basic Course of Action (Main Flow)

Action	Response
1. User selects Scrutiny of the document option. 2. User selects article. 3. User selects jurisdiction. 4. User accepts survey no. and select for ROR verification. 5. User enters execution date 6. User calculates market value, SD. 7. User checks SD payment and verify online payment. 8. Selects entire payment is done 9. Checks for Prohibited property 10. Make SD payment (if not online) and counter payment.	1. Page is displayed for scrutiny of the document. 2. Verifies article number. 3. Jurisdiction list is available for selection; fill the related data in that list 4. Survey no. is accepted and ROR is verified 5. Execution date is filled. 6. Market value is calculated.SD is calculated as per SD rules & amendments at local state. 7. It Checks for SD payment and verifies the payment in case of online payment. 8. Counter receipt is generated, Summary 1 report is generated. 9. If not from prohibited property list, registration will be accepted 10. Registration will be accepted and data will be saved.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
If not within period.	Reject the document.
If SD payment entire amount not paid	If in configuration it is to accepted & forward to COS else reject.
If ROR verification shows mismatch party names	If compulsory in configuration and if party names do not match, then registration will be rejected.
Prohibited property verification	If displayed from prohibited property list, registration will be rejected (if configurable else only alert).

Post Condition:

Title description	Description
Success	Document is ready for further processing. Document is forwarded to COS for SD verification.
Failure	Document is rejected.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Admission & Identification process **(FN0703)**
Primary Actor (A)	SRO
Secondary Actor (S)	
Description	This functionality is used to identify the party and witness for the document submitted by citizen.
	Username should exist. Scrutiny process is completed.

Basic Course of Action (Main Flow)

Action	Response
1. User selects admission and identification option. 2. User checks party details. 3. User checks identifier details. 4. User capture party's photo. 5. User captures party's thumb impression. 6. User verifies party's thumb with UID server. 7. User capture identifier's photo. 8. User captures identifier's thumb impression. 9. User verifies identifier's thumb with UID server. 10. User checks scrutiny details. 11. User checks fee payment.	1. If scrutiny is completed and document is accepted, then admission process completed and will be available for identification 2. Page is displayed for identification. 3. It checks whether party details are filled and verifies the details. 4. It checks whether identifier details are filled and verifies the details. 5. Party photo is captured. 6. Party's thumb impression is captured, 7. Party's thumb with UID server is verified. 8. Identifier's photo is captured. 9. Identifier's thumb impression is captured. 10. Identifier's thumb is verified with UID server. 11. It checks whether scrutiny process is completed. 12. Verifies the due payment is received. 13. Data will be saved.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
If not within period.	Reject the document.

Post Condition:

Title description	Description
Success	Document is admitted for registration.
Failure	Document is rejected.

Extension Point:

Non Functional Requirement	
Technology List	

Use Case Name	Finalization of document registration **(FN0704)**
Primary Actor (A)	SRO
Secondary Actor (S)	
Description	Registration process at SRO office.
	Username should exist. Document is read & presentation process is completed.

Basic Course of Action (Main Flow)

Action	Response
1. User selects final registration option. 2. Final verification of all process & entire payment. 3. Finalization of registration with signature. 4. Scanning of the document. 5. Handover document to party.	1. Page is displayed for final registration. 2. Verifies the all processes completed & due entire payment is received. 3. Document number is generated, SMS sent to the party. 4. Document is scanned, stored and uploaded. 5. Final copy is handover to the party.

Alternate Flow:

Title description	Description
Required Field Validation	If any of the required fields are not completed, the citizen is informed which required fields are missing. Input focus is returned to the first missing field.
If not within period.	Reject the document.

Post Condition:

Title description	Description
Success	Document number is generated, SMS sent to the party.
Failure	Document number is not generated, SMS not sent to the party.

Extension Point:

Non Functional Requirement	
Technology List	

4.4 Major Functional Variations

Sr. No.	Description	Function	
1	Office Hierarchy	**FN0201-02 : Create office shift, hierarchy , office details & employee**	**Configurable.** -No. of levels & level description can be defined. -Reporting office is to be mentioned. -Employee belongs to office. -Reporting Officer is to be mentioned while defining Employee.
2	Describe levels up-to village.	**FN0102 : Administrative blocks in state**	**Configurable.** Levels as below: -State -Division -District -Sub-division -Taluka -Circle/ Block -Developed land types (Urban/ Rural/ Influential) -Local governing body type (Corporation/ Nagar Parishad..) -Local governing body name -Village
3	Property location within village/ city	**FN0103 : Location classification within village/city**	**Configurable** (Minimum one level is required out of four) -Location level One Location level One list -Location level Two Location level Two list -Location level Three Location level Three list -Location level Four Location level Four list
4	Language	**FN0101 : Local Language selection**	**Configurable** -State can select English & number of local languages maximum 5 from selection list. -Master code to be updated for all selected local languages. -At the time of document entry local language selection will be displayed. -Document will be in English & selected local language.
5	Measurement Units	**FN0305 : Measurement Units**	**Configurable** -State specific measurement

			units are to be added at the time of configuration, if not available in standard list. -National level standard units are to be fixed. Example: For Rural – Are, Acre, Hectare For Urban – Square feet, Square meter -Conversion formulas are to be added by individual states. 1 Bigha = 0.16055846 Hectare 1 Are = 0.00989992 Hectare 1 Acre = 0.40087146 Hectare 1 Katha = 720 Square feet
6	Valuation rules	**FN0108 : Valuation rule formation**	-Define usage category -Define rate -Define property items -Link items with usage category -Define rule with dependency attributes like construction type, age of property , road vicinity
7	Stamp duty calculation rules	**FN0110 : Rule formation for Stamp duty/ Registration/ Other fee calculation**	**Configurable** -Stamp duty, LBT, CESS, Registration fee, Handling charges, Copying fee, etc. will be defined as Account Heads -Dependent upon Article - Dependent upon Market value/ consideration value -In percentage/ slab rate/ fixed amount -No. of shares (Article dependent)
8	Stamp duty exemption rules	**FN0111 : Exemption rules towards Stamp duty/ Registration/ Other fee**	**Configurable** -Gender dependent -Government/ non-Government -Tribal/ non-Tribal -Notified Government schemes -School/ Hospital -Exemption in percentage/ slab rate/ fixed amount
9	Concurrent Jurisdiction	**FN0113 : Defining Concurrent Jurisdiction**	**Configurable** -As per Sub-Registrar -One or more SR Offices -One or more circles to SR -District HQ SR -District wise -Within city -Sub district wise

10	Registration endorsement steps	FN0114 : Registration endorsement steps	Configurable -No. of endorsement steps are to be defined as Stamps -Activity/ function is to be mapped with step

4.5 Counter Definitions

Sr. No.	Description	Format
1	Public document entry token number	PDE-<YEAR>-<XXXXXXXXX>
2	SR office document entry token number	SDE-<YEAR>-<SROCode>-<XXXXXXXXX>
3	Time slot booking number	TSB-<YEAR>-<XXXXXXXXX>
4	Document registration number	DRN-<YEAR>-<SROCode>-<XXXXXXXXX>
5	Manual document registration number	MRN-<YEAR>-<SROCode>-<XXXXXXXXX>
6	Payment gateway challan number	PGR-<YEAR>-<PGName>-<XXXXXXXXX>
7	Counter payment receipt number	CPR-<YEAR>-<SROCode>-<XXXXXXXXX>

4.6 NGDRS Clients

• Client side component running on a user's computer and connect to a server. These components perform client-side operations as they might need access to information available only on the client side, like user input as thumb impression, photo, digital signature, iris image etc. After capturing client side inputs NGDRS client will directly connect to server for further processing

Sr. No.	NGDRS Client API	Device used	Input	External server (If required)	NGDRS server Response
1	Capture thumb	Biometric Scanner (ISO standard devices)	Thumb image, UID,	UID server	UID, thumb image , verified with UID server flag
2	Capture photo	Web Camera	Photo image	--	Photo image
3	Capture iris	Iris scanner	Iris image	UID	UID, Iris image , verified with UID server flag
4	Digital signature	USB dongle	Digital signature certificate, Name , Validity		Name , Validity, Signed flag with date
5	Document Scanning	Document Scanner	Document number, document scanned image		Document number, document scanned image with date

5. NON-FUNCTIONAL REQUIREMENTS

5.1 Performance Requirements

- The system must be interactive and the delays involved must be less

- The application software and the backend database would be designed to handle the bulk of transactions in terms of data additions, pupations and queries.

- In case of opening databases, sorting questions and evaluation there are no delays and the operation is to be performed in less time period for opening, sorting, computing, posting > 95% of the files.

- All Web pages generated by the system shall be fully downloadable in no more than 10 seconds over a 1MBps speed internet connection.

- Responses to queries shall take no longer than 7 seconds to load onto the screen after the user submits the query.

- The system shall display confirmation messages to users within 4 seconds after the user submits information to the system.

5.2 Safety Requirements

- Anything that has even a very slight possibility of being defect, misused or malfunctioning will be protected & will be redirected to error page.

- Information transmission should be securely transmitted to server without any changes in information

5.3 Security Requirements

- Access to the system is limited to authenticated users.

- For some crucial roles password & biometric is used for authentication.

- System is directly using UID data for authentication of individual.

- External user like citizen will get access for limited period.

- Information transmission should be securely transmitted to server without any changes in information using https certificates installed on server.

- Cyber security audit cleared application will be hosted on production server.

- Production server will be updated for latest security patches & antivirus loaded.

5.4 Software Quality Attributes

5.4.1 Availability

- System will be available 24x7 as it will be hosted on internet in public domain. Only connectivity is the constraint.

5.4.2 Usability

- As the system is easy to handle and navigates in the most expected way with no delays. The Application system should be developed in such a way that the end users should use the software optimally, without the continuous presence of computer professionals.

5.4.3 Reliability

- Cyber security audit cleared NGDRS will be hosted on the server.
- NGDRS will be hosted on SSL ((Secure Sockets Layer) enabled server which will be reliable in its operations and for securing the sensitive details.

5.4.4 Flexibility

- MVC & component based technology is to be used for development which will be convenient for further changes.
- The system will be highly scalable and will offer remarkable software flexibility to manage Registration process within the state.

5.4.5 Concurrency

- Maximum number of concurrent users are dependent upon   server configuration like RAM , number of CPUs, performance tuning etc. There is no limit at application level.

5.5 Operational Requirements

- Help Desk Support System users have a 24x7 access to telephone assistance for questions that are technical in nature, such as, slow or sluggish system response time, incompatible browser features, application errors, system downtime inquiries, account lock-out assistance, etc.

- Application Services and Technical support Programmers and application developers will have access to source code to address bugs or system enhancements as deemed necessary. Network Administrator and DBA support is also required to maintain a 24x7 system uptime.

- Administration Features System security and access levels are provided in the online system. There are varying levels of system access and functional authority. Each student's access is limited to his/her own registration records. Only authorized system administrator(s) has access to all student registration records.

- System hardware fail over and routine back up Computer operations center will handle system hardware tasks such as data tape back-up, hardware maintenance, fail over, scheduled system patches and maintenance.

- Audit Trail System audit trails are inherent part of all NGDRS. Among others, all transaction records will capture what action was taken, when (time-stamp) the transaction occurred and who made the transaction.
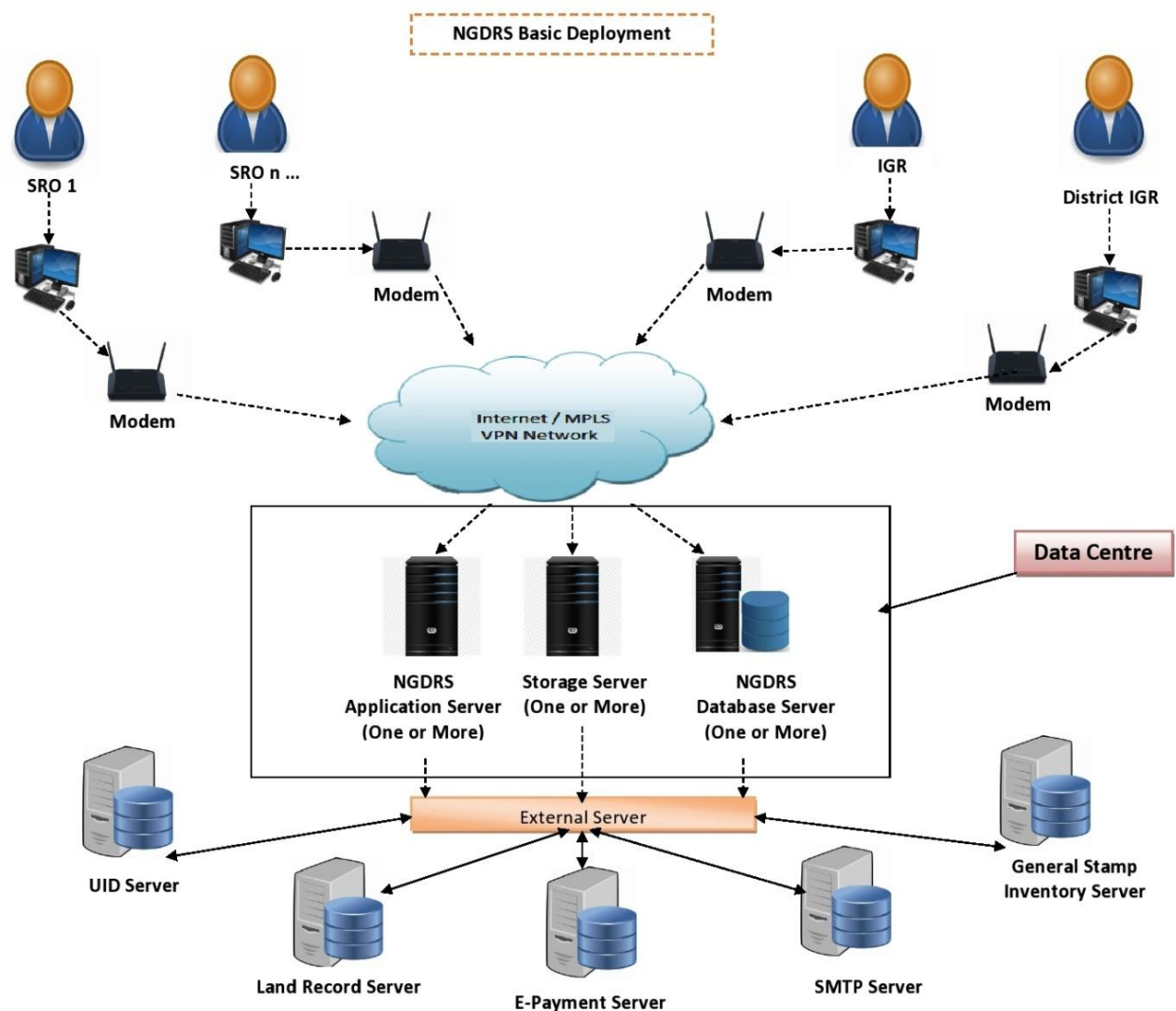
5.6 Licensing Requirements

- Not Applicable

5.7 Legal, Copyright and other Notices

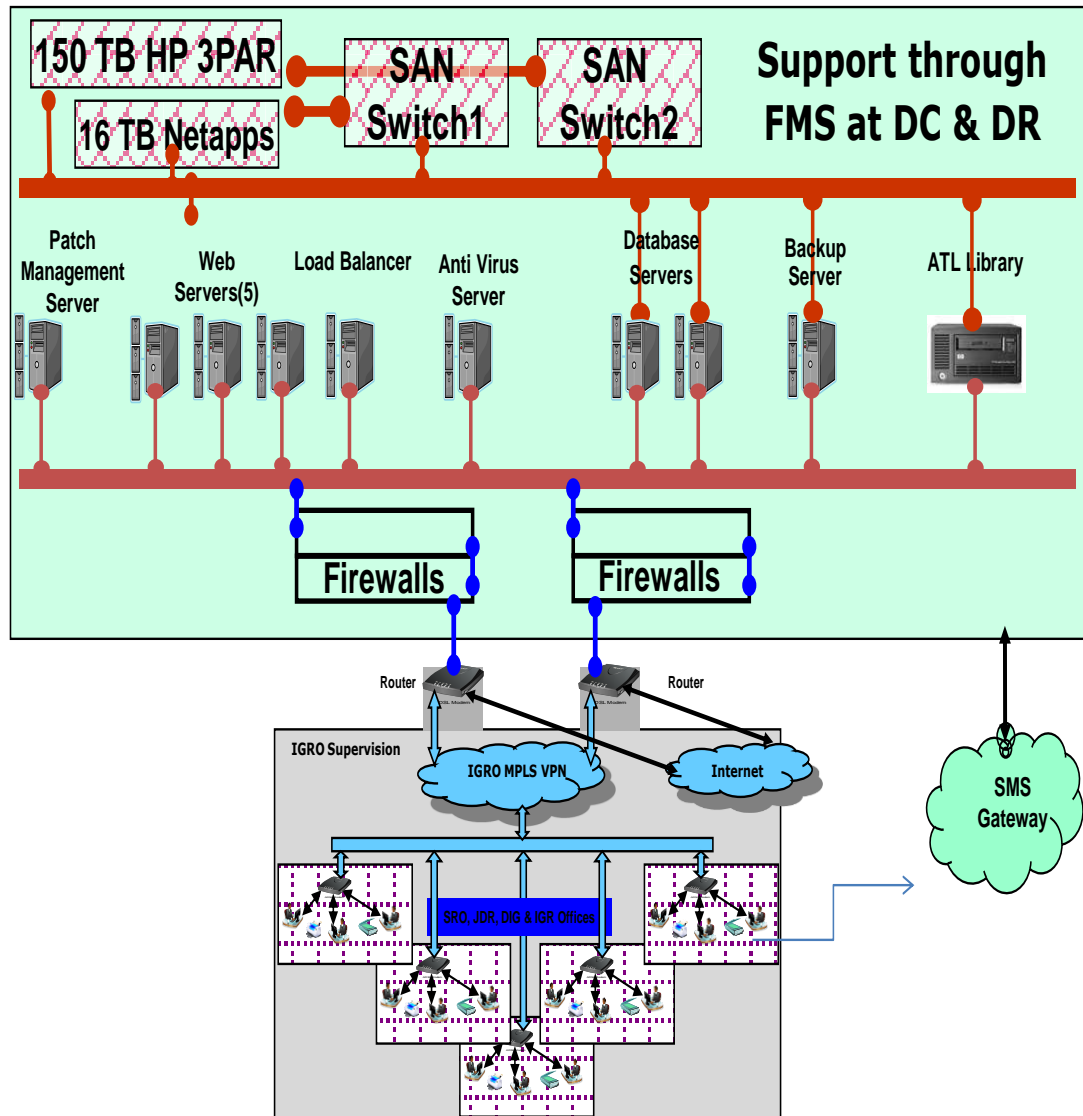- NGDRS should display the disclaimers, copyright, word mark, logo of the Ministry of Rural Development.
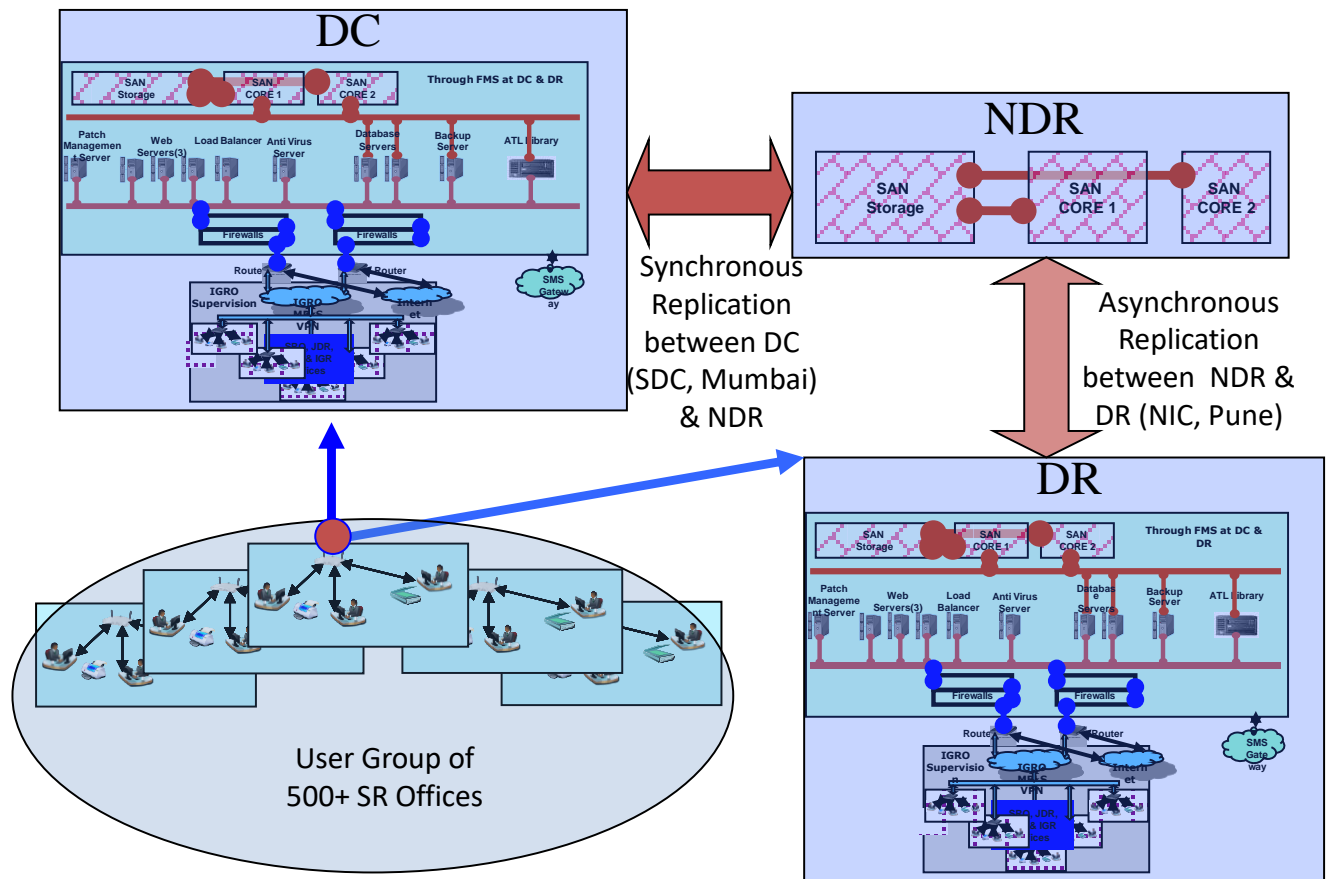
5.8   Deployment Diagram

Basic Deployment Diagram

iSarita Maharashtra Deployment Diagram
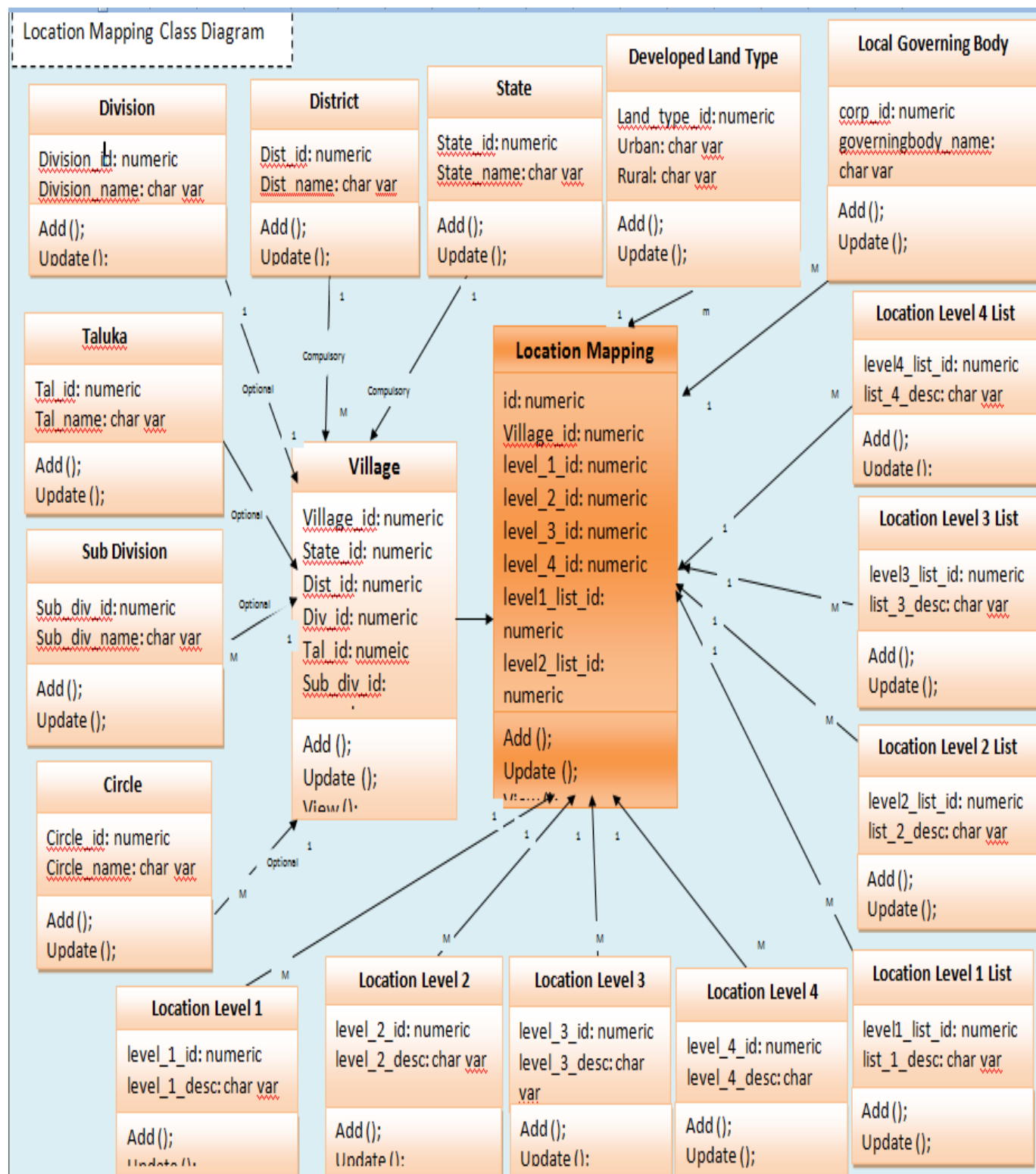
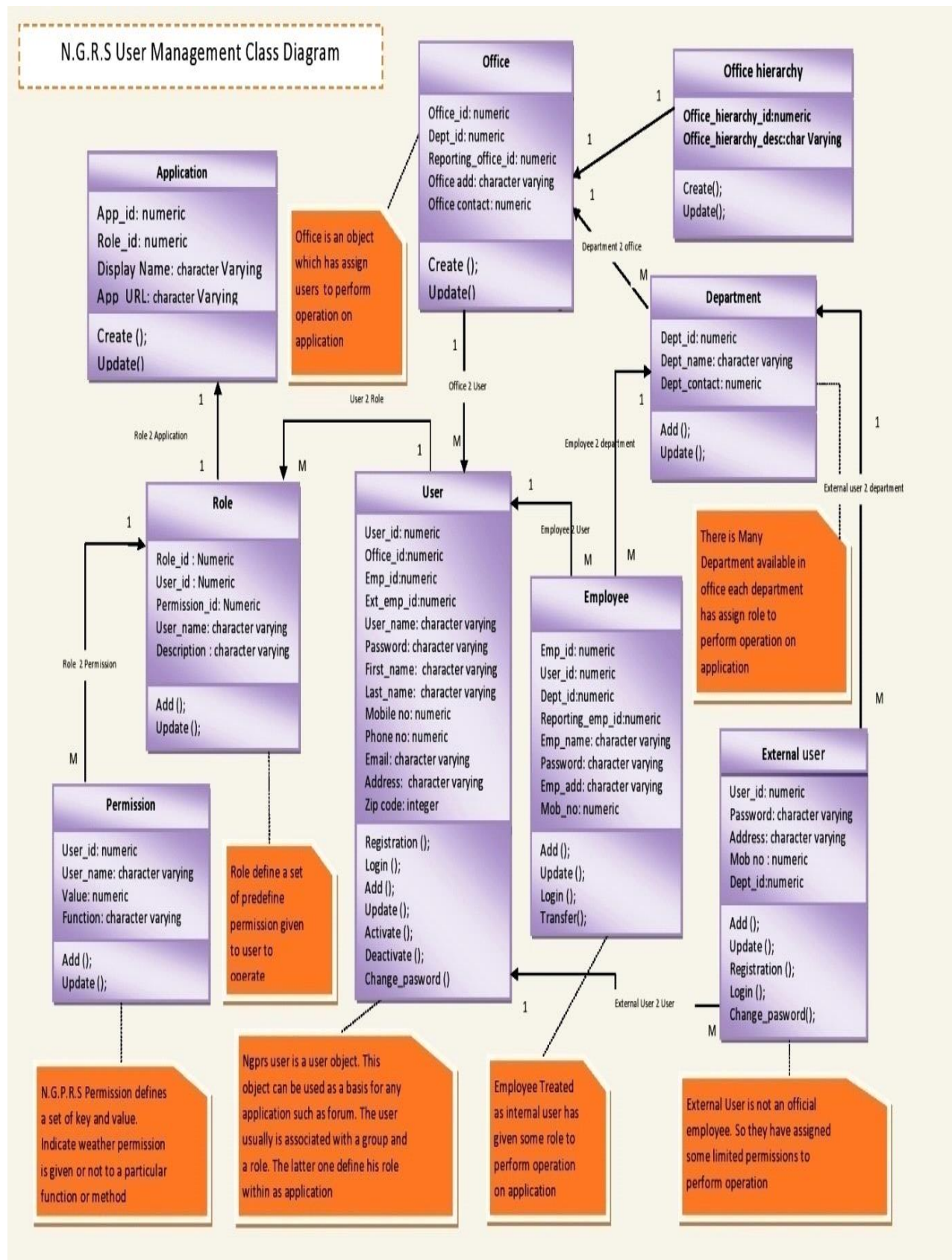# iSarita Architecture - Collocation

Disaster Recovery Methodology

Synchronous Replication between DC (SDC, Mumbai) & NDR

Asynchronous Replication between NDR & DR (NIC, Pune)

User Group of 500+ SR Offices

6. LOGICAL DATA REQUIREMENTS

6.1 Logical data modeling – class diagrams

Define village with administrative block & locations

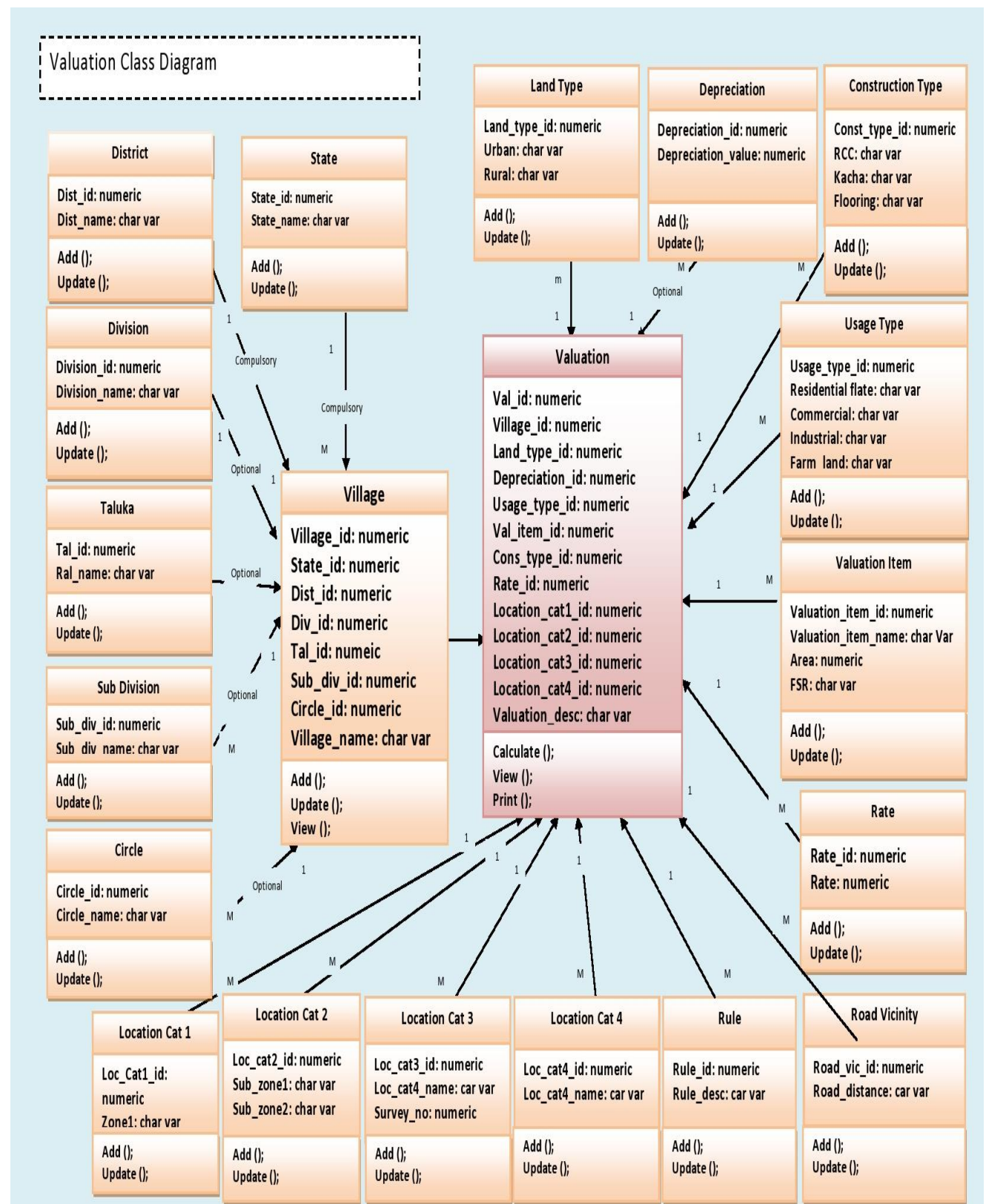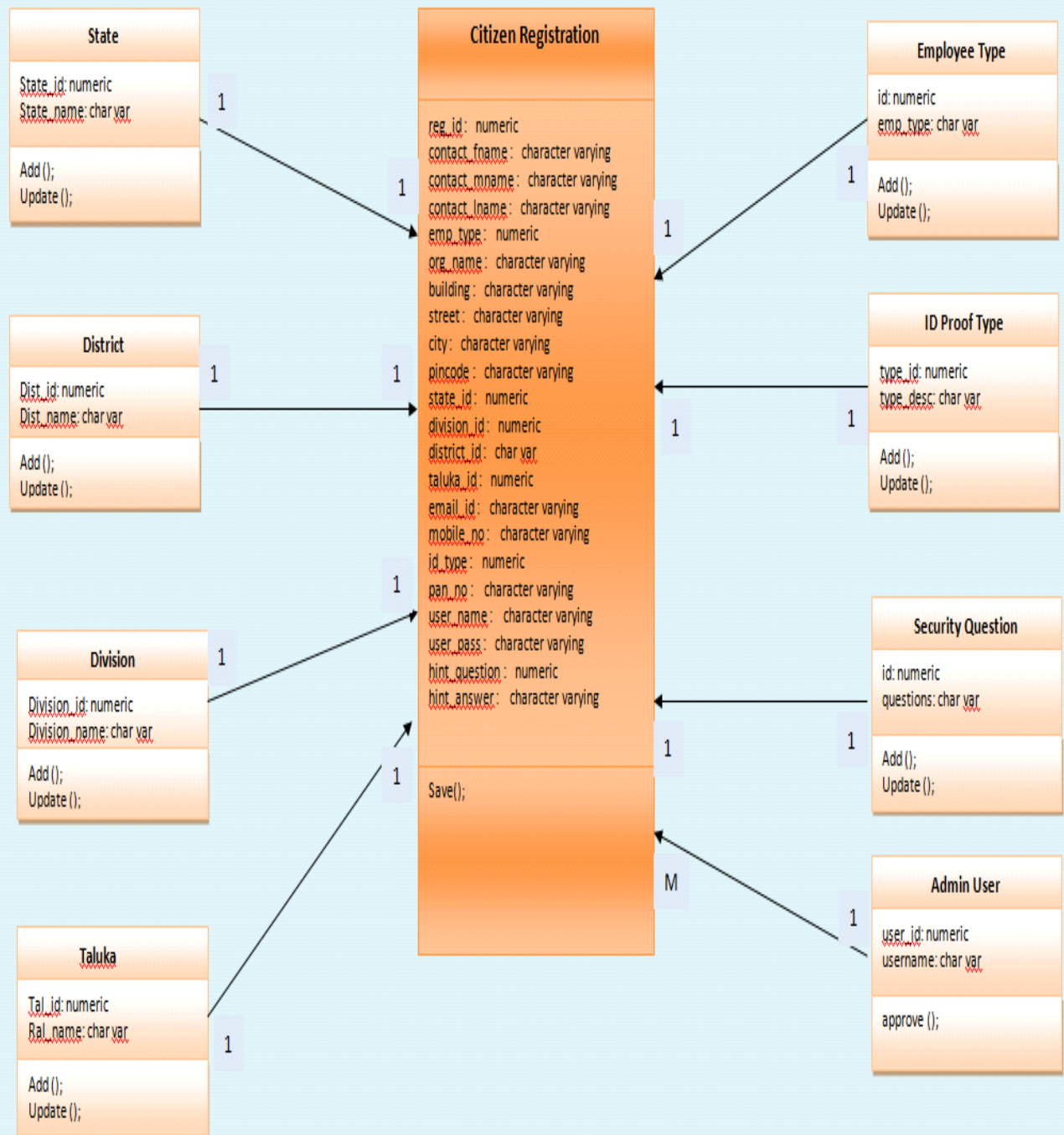### Define user management

N.G.R.S User Management Class Diagram

Define rule, rate & usage

Rate, Rule, Usage Category

District

Dist_id: numeric
Dist_name: char var

Division

Division_id: numeric
Division_name: char var

Taluka

Tal_id: numeric
Tal_name: char var

Corporation Class

ulb_type_id: numeric
class_description: char var

Corporation Class List

ulb_type_id: numeric
governingbody_name: char var

Construction Type

cons_type_id: numeric
construction_type_desc: char var

State

State_id: numeric
State_name: char var

Village

Village_id: numeric
village_desc: char var
disrtict_id:numeric
division_id:numeric
taluka_id:numeric

Usage main/sub sub sub Category

main_cat_id: numeric
usage_main_catg_desc: char var

Developed Land Type

Land_type_id: numeric
Urban: char var
Rural: char var

Item List

id: numeric
usage_param_desc: char var

Rule

usage_id:numeric
division_id:numeric
district_id: numeric
talika_id: numeric
corporation_id_ numeric
construction_id: numeric
unit_id: numeric
land_type_id: numeric
item_id: numericroad_vicinity_id : numeric
rule_id: numeric
corp_class_id: numeric
village_id: numeric

Depreciation

id: numeric
deprication_type_desc: char var

Property Unit

unit_id: numeric
unit_desc: char var

Road Vicinity

id: numeric
road_vicinity_desc: char var

User Dependancies

id: numeric
user_defined_dependency1_desc: char var

Rate

rate_type_id: numeric
finyear_id: numeric
level1_id: numeric
level1_id: numeric
level3_id: numeric
level4_id: numeric
level1_list_id: numeric
level2_list_id: numeric
level3_list_id: numeric
level4_list_id: numeric
unit_id: numeric
usage_main_id: numeric
usage_sub_id: numeric
usage_sub_sub_id: numeric

Location Level 1

level_1_id: numeric
level_1_desc: char var

Location Level 2

level_2_id: numeric
level_2_desc: char var

Location Level 3

level_3_id: numeric
level_3_desc: char var

Rate Type

id: numeric

Financial Year

finyear_id: numeric
finyear_desc: char var

Location Level 4 List

level4_list_id: numeric
list_4_desc: char var

Location Level 3 List

level3_list_id: numeric
list_3_desc: char var

Location Level 2 List

level2_list_id: numeric
list_2_desc: char var

Location Level 4

level_4_id: numeric
level_4_desc: char var

Location Level 1 List

level1_list_id: numeric
list_1_desc: char var

Define Valuation

Valuation Class Diagram

Citizen Registration

Citizen Registration Class Diagram

State

State_id: numeric
State_name: char var

Add ();
Update ();

District

Dist_id: numeric
Dist_name: char var

Add ();
Update ();

Division

Division_id: numeric
Division_name: char var

Add ();
Update ();

Taluka

Tal_id: numeric
Ral_name: char var

Add ();
Update ();

Citizen Registration

reg_id : numeric
contact_fname : character varying
contact_mname : character varying
contact_lname : character varying
emp_type : numeric
org_name : character varying
building : character varying
street : character varying
city : character varying
pincode : character varying
state_id : numeric
division_id : numeric
district_id : char var
taluka_id : numeric
email_id : character varying
mobile_no : character varying
id_type : numeric
pan_no : character varying
user_name : character varying
user_pass : character varying
hint_question : numeric
hint_answer : character varying

Save();

Employee Type

id: numeric
emp_type: char var

Add ();
Update ();

ID Proof Type

type_id: numeric
type_desc: char var

Add ();
Update ();

Security Question

id: numeric
questions: char var

Add ();
Update ();

Admin User

user_id: numeric
username: char var

approve ();

Citizen Data Entry

Citizen Entry Class Diagram

Citizen User

userid: numeric
username: char var

Add ();
Update ();

District

Dist_id: numeric
Dist_name: char var

Add ();
Update ();

State

State_id: numeric
State_name: char var

Add ();
Update ();

ID Type

id_type: numeric
idtype_desc: char

Add ();
Update ();

Hadd Type

id: numeric
hadd_desc: char var

Add ();
Update ();

Party Type

id: numeric
party_type: char var

Add ();
Update ();

Stamp Duty

id: numeric
stamp_duty_desc:char var

calculate ();

Payment

Bank Account
Credit Card

Party

party_id:numeric
User_id:numeric
f_name_char var.
l_name:char var
party_name:char var
flat_no:numeric
floor_no:numeric
building:char var
vlock:char var
road:char var
pin_code:numeric
city:char var
district_id:numeric
identification_mark:char var

Save();

Property

property_id:numeric
user_id:numeric
district_id:numeric
village_id:numeric
hadd_type:numeric
hadd_name:char var
taluka_id:numeric
attribute_id:numeric
attribute_desc:char var
area_to_sale:char var
area_unit:numeric
address_char var

Save();

Payment

payment_method:char var.
date_received:date.
Amt_received: numeric

makepayment();

Village

village_id: numeric
village_name: char var

Add ();
Update ();

Attribute Type

attribute_id: numeric
attribute_desc: char var

Add ();
Update ();

Taluka

taluka_id: numeric
taluka_name: char var

Add ();
Update ();

Valuation

id: numeric
rate: numeric

calculate ();

Area Unit

id: numeric
unit_desc: char var

Add ();
Update ();

Registration Process

NGRS Document Registration Class Diagram

For identification Verification is done from UID server.

SRO is Official User who verify document and do property registration.

Report to

Identification

Identification_id: Numeric
identity_name: char var
identity_add: numeric

digitalSignature()
thumbCapture()
phptoCapture()

SRO

Emp_no: Numeric
Emp_name: char var
Office_hierarcy: numeric

Identification ()
verifyStampDuty()
Registration()

Citizen

Citizen_id: Numeric
citizen_name: char var
Citizen_add: char var

Appointment();
Identification ();
Registration();

Witness

Witness_id: Numeric
witness_name: char var
witness_photo: char var
witness_add: numeric

Registration()
Verification()

Witness is People Who Know party

has

do

do

Verify

Registered

1

1

1

m

m

m

Party

Party_no: Numeric
party_name: char var
party_address: char var

stampdutyPayment()

1

1   have   m

Document

Doc_id: char var
Article: char var
Presentation_date: date
Execution : char var

Presentation()

have doc details

m

Property

Prop_id: Numeric
area: integer
prop_rate: numeric

Valuation()
stampDutyCalculation()

6.2 Legacy Data Transfer

NIC will design excel sheet format which will be necessary for data transfer from old legacy data to new PostgreSql data. Data should be available in this format with newly coded master codes.

Utility will be available to transfer the actual tabular data from excel sheet data to new PostgreSql data.

- Validation report will be generated.
- Records will be available for checking row by row.
- Row data will be migrated to NGDRS after confirmation by user.
- Report will be generated for in-valid data & migrated data with count.
- Legacy data will be made available only for reference.

6.3 Data Validation

Ensure that the data is strongly typed, correct syntax, within length boundaries, contains only permitted characters, or that numbers are correctly signed and within range boundaries

- **Data types**: Data types typically provide the first layer of validation. And that data type restricts what users can enter.

- **Field sizes** : Field sizes provide another layer of validation

- **Required field**: Force users to enter a value in a field.

- **Range Fields :** Test for range values

- **Date Field :** Date format is to be validated as dd/mm/yyyy

- **Email validations :**

- **Table look up checks:** Test entered data item is in a valid list of entries that are stored in a database table.

- **Integrity checks:** Ensure that the data has not been tampered with and is the same as before.

- **Sanitize the input :** Rather than accept or reject input, another option is to change the user input into an acceptable format

7. ANNEXURE

Annexure-I (Articles)

Article Name
Acknowledgement/Possession Receipt
Administration Bond
Adoption Deed
Affidavit
Agreement or its records or Memorandum Of Agree men
Agreement Relating to Deposit of Title Deeds, Pawn,
Execution of Power
Valuation
Apprenticeship Deed
Articles of Association of a company
Articles of Clerkship
Award
Bond
Bottomry Bond
Cancellation
Certificate of Sale
Certificate or Other Document
Charter Party
Clearance List(Purchase or sale of government security)
Clearance List(Purchase or sale of cotton)
Clearance List(Purchase or sale of Boolean or spic
Clearance List(Purchase or sale of oil seeds)
Clearance List(Purchase or sale of yarn)
Composition Deed
Conveyance
Copy or Extract
Counterpart or Duplicate
Customs or Excise Bond
Delivery Order
Divorce
Entry of Memorandum of Marriage
Exchange of Property
Further Charge
Gift
Inspectorships Bond
Lease
Letter of Allotment of Shares
Letter of License
Memorandum of association of a company
Mortgage Deed
Mortgage of a crop
Notarial Act
Note of Memorandum
Note of Protest by Master of a Ship
Order for the Payment of Money

Partition
Partnership
Power of Attorney
Protest of Bill or Note
Protest of a Master of a Ship
Reconveyance of Mortgaged Property
Release
Respodentia Bond
Security Bond or Mortgage Deed
Settlement
Share Warrants
Shipping Order
Surrender of Lease
Transfer
Transfer of Lease
Trust
Warrant for Goods
Will
Declaration
Correction Deed
Notice of Lease Pendancy
Apartment Deed
Agreement
Apartment Deed
Confirmation Deed
Leave and Licenses
(51-A)Record Of Transaction(Electronic or Otherwise)
Work Contract

Annexure-II (Party Types)

Seller/Executor1
Purchaser/Buyer/Executor2
Confirming Party/Granter
Bridegroom
Bride
Priest
Presenter
Power of Attorney Holder
Borrower/Guarantor
Donor

Annexure-III (Property Attributes)

Survey Number
C.T.S. Number
Plot Number
Final Plot Number
Khachara Number
Revenue Number
Forest Compound Number
REVISE Number
Block Number
GAT NUMBER
PARDI NUMBER
HISSA NUMBER
SECTOR NUMBER
TPS NUMBER
MILKAT NUMBER
SUB PLOT NUMBER
TOWN PLANNING NUMBER
HOUSE NUMBER
GRAMIN HOUSE NUMBER
GLR NUMBER
NEW CTS No.
OLD CTS No.
Ward no.
Pethbhag / City Survey No.
Gaonbhag / City Survey No.
Khanbhag / City Survey No.
Vakharbhag / City Survey No.
Extension / City Survey No.
Extension / Revenue Number
Sangliwadi / City Survey No.
Sangliwadi / Survey No.
Gaonbhag / Revenue Number
Pethbhag / Revenue Number
Nazul Plot No.
Nazul Khachara no.

Sheet / Survey No.
Sheet / City Survey No.
Sheet / Nazul Plot No..
Sheet / Nazul Khachara No.

Annexure-IV (Receipt)

Annexure-V (Summary 1)

Summary 1 (Dastgoshwara bhag 1) -- Webpage Dialog

|||||||||| ||||||
शुक्रवार,29 जानेवारी 2016 3:18 म.नं.

दस्त गोषवारा भाग-1

हवल21
दस्त क्रमांक: 1052/2016

दस्त क्रमांक: हवल21 /1052/2016

बाजार मुल्य: रु. 00/-   मोबदला: रु. 00/-

भरलेले मुद्रांक शुल्क: रु.00/-

दु. नि. सह. दु. नि. हवल21 यांचे कार्यालयात   पावती:1161   पावती दिनांक: 29/01/2016

अ. क्रं. 1052 वर दि.29-01-2016   सादरकरणाराचे नाव: **सरिता रमेश आबाब**

रोजी 11:04 म.पू. वा. हजर केला.

नोंदणी फी   रु. 100.00

दस्त हाताळणी फी   रु. 120.00

पृष्ठांची संख्या: 6

दस्त हजर करणाऱ्याची सही:

एकुण: 220.00

Joint S R Haveli 21   Joint S R Haveli 21

दस्ताचा प्रकार: मुल्यपत्र

मुद्रांक शुल्क:

शिक्का क्रं. 1 29 / 01 / 2016 11 : 04 : 17 AM ची वेळ: (सादरीकरण)

शिक्का क्रं. 2 29 / 01 / 2016 11 : 04 : 56 AM ची वेळ: (फी)

Annexure-VI (Index-I)

Index-I (Suchi-1) -- Webpage Dialog   ✕

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Friday,29 January,2016

3:54 PM

सूची क्रं. 1
(नियम 29)

दुय्यम निबंधक : सह. सह दु.नि.हवेली 21

नोंदणी:59

Regn. :59m

(1) दस्तऐवज करून देणाऱ्या / लिहून ठेवणाऱ्या पक्षकाराचे नाव किंवा दिवाणी न्यायालयाचा हुकूमनामा किंवा आदेश असल्यास,प्रतिवादीचे नाव व पत्ता.

1) नाव: देवेंद्र भगवान शेठ , पत्ता:प्लॉट नं: प्लॉट नं. 35, माळा नं: -, इमारतीचे नाव: शालीन, ब्लॉक नं: हिंगणे होम कॉलनी, कर्वेनगर, पुणे, रोड नं: -, महाराष्ट्र, पुणे. , पिन कोड: 411052, पॅन नंबर: ADEPS6431J

(2) दस्तऐवज करून घेणाऱ्या पक्षकारचे नाव किंवा दिवाणी न्यायालयाचा हुकूमनामा किंवा आदेश असल्यास,प्रतिवादीचे नाव व पत्ता

1) नाव: अभिजीत चंद्रकांत चुंबळकर , पत्ता:प्लॉट नं: -, माळा नं: -, इमारतीचे नाव: सुमन निवास, ब्लॉक नं: खडकपुरा गल्ली, करमाळा, सोलापूर, रोड नं: -, महाराष्ट्र, सोलापूर. , पिन कोड: 413203, पॅन नंबर: ANQPC2348N

(3) मालमत्तेचे ठिकाण:

हिंगणे बु ण ण (म.कर्वे नगर)

(4) करून दिल्याचा दिनांक:

29/01/2016

(5) नोंदणीचा दिनांक:

29/01/2016

(6) अनुक्रमांक व वर्ष :

1050/2016

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Annexure-VII (Index-II)

Index-II -- Webpage Dialog

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29/01/2016

सूची क्र.2

दुस्सन निबंधक : सह दु.नि.हवेली 21

रस्त क्रमांक : 1050/2016

नोंदणी :

Regn:63m

गावाचे नाव : 1) हिंगणे बु ॰ा॰ा (म.कर्वे नगर)

(1)विलेखाचा प्रकार	करारनामा
(2)मोबदला	3650000
(3) बाजारभाव(भाडेपट्टयाच्या बाबतितपट्टाकार आकारणी देतो की पट्टेदार हे नमुद करावे)	2971568.4
(4) भू-मापन,पोटहिस्सा व घरक्रमांक(असल्यास)	1) पालिकेचे नाव:पुणे म.न.पा. इतर वर्णन :, इतर माहिती: (विभाग नं.35/524) मौजे हिंगणे बुद्रुक (म.कर्वेनगर),पुणे येथील स.नं. 54,हिस्सा नं. 1ब/2, सि.स.नं.899-900 यामधील माझे स्वतंत्र खरेदी मालकीची हिश्याचे जमीन क्षेत्र 795 चौ.फुट व त्यावरील आर.सी.सी. बांधकाम क्षेत्र 390 चौ.फुट,हि मिळकत.((Survey Number : 54 ; C.T.S. Number : 899-900 ;))
(5) क्षेत्रफळ	1) 795 चौ.फूट
(6)आकारणी किंवा जुडी देण्यात असेल तेव्हा.	
(7) दस्तऐवज करुन देणा-या/लिहून ठेवणा-या पक्षकाराचे नाव किंवा दिवाणी न्यायालयाचा हुकुमनामा किंवा आदेश असल्यास,प्रतिवादिचे नाव व पत्ता.	1): नाव:-देवेंद्र भगवान हेड वय:-65; पत्ता:-प्लॉट नं: प्लॉट नं. 35, माळा नं: -, ईमारतीचे नाव: शालीन, ब्लॉक नं: हिंगणे होम कॉलनी, कर्वेनगर, पुणे, रोड नं: -, महाराष्ट्र, पुणे. पिन कोड:-411052 पॅन नं:-ADEPS6431J
(8)दस्तऐवज करुन घेणा-या पक्षकाराचे व किंवा दिवाणी न्यायालयाचा हुकुमनामा किंवा आदेश असल्यास,प्रतिवादिचे नाव व पत्ता	1): नाव:-अभिजीत चंद्रकांत चुंबळकर वय:-26; पत्ता:-प्लॉट नं: -, माळा नं: -, ईमारतीचे नाव: सुमन निवास, ब्लॉक नं: छत्रकपुरा गल्ली, करमाळा, सोलापूर, रोड नं: -, महाराष्ट्र, सोलापुर. पिन कोड:-413203 पॅन नं:-ANQPC2348N
(9) दस्तऐवज करुन दिल्याचा दिनांक	29/01/2016
(10)दस्त नोंदणी केल्याचा दिनांक	29/01/2016
(11)अनुक्रमांक,खंड व पृष्ठ	1050/2016
(12)बाजारभावाप्रमाणे मुद्रांक शुल्क	219000
(13)बाजारभावाप्रमाणे नोंदणी शुल्क	30000
(14)शेरा	

मुल्यांकनासाठी विचारात घेतलेला तपशील:-:

मुद्रांक शुल्क आकारताना निवडलेला अनुच्छेद :- : (i) within the limits of any Municipal Corporation or any Cantonment area annexed to it.

Annexure-VIII (Index-III)
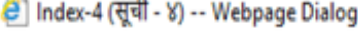
Annexure-IX (Index-IV)

Index-4 (सूची - ४) -- Webpage Dialog   ✕

‖‖‖‖‖‖‖‖‖
Friday,29 January 2016 6:05 PM   **सूची क्रं. 4**   दुय्यम निबंधक : दु. नि. NICtest

(1) दस्तऐवज करुन देणाऱ्या पक्षकाराचे नाव किंवा दिवाणी न्यायालयाचा हुकूमनामा किंवा आदेश असल्यास,प्रतिवादीचे नाव व पत्ता

1) नाव: विष्णू पाटील शरद , पत्ता:प्लॉट नं: -, माळा नं: -, इमारतीचे नाव: -, ब्लॉक नं: -, रोड नं: आंबेगाव, महाराष्ट्र, पुणे. , पिन कोड: **411046**, पॅन नंबर:

(2) दस्तऐवज करुन घेणाऱ्या पक्षकाराचे नाव किंवा दिवाणी न्यायालयाचा हुकूमनामा किंवा आदेश असल्यास,प्रतिवादीचे नाव व पत्ता

1) नाव: बापूसाहेब बेलेकर केशव , पत्ता:प्लॉट नं: -, माळा नं: -, इमारतीचे नाव: -, ब्लॉक नं: -, रोड नं: आंबेगाव, महाराष्ट्र, पुणे. , पिन कोड: **411046**, पॅन नंबर:

(3) दस्तऐवजाचा प्रकार व मोबदल्याचे मूल्य   दत्तकपत्र/25000

(4) नोंदणीचा दिनांक   29-01-2016

(5) अनुक्रमांक,खंड व पृष्ठ   13 /2016

(6) दस्तऐवजाचा अनुक्रमांक   13

(7) शेरा

Print & Close	Close	Window Print & Close

Annexure-X (Summery-II)

Annexure-XI (Cash Book)

Annexure-XII (Construction Types)

1	R.C.C.
2	Itar Pakke Bandhkam
3	Ardhe Pakke
4	Kachche Bandhkam

Annexure-XIII (Depreciation/Age of property)

	Property Age in Years	RCC/ Itar Pakke Bandhkam (% of Rate)	Ardhe Pakke/ Kachche Bandhkam (% of Rate)
1	0 to 2	100	100
2	2 to 5	95	95
3	5 to 10	90	85
4	10 to 20	80	75
5	20 to 30	70	60
6	30 to 40	60	45
7	40 to 50	50	30
8	50 to 60	40	20
9	60 onwards	30	15

Annexure-XIV

State suggestions on NGDRS SRS

1.   Jharkhand-

   a. Connectivity - Due to poor internet connectivity in many parts of the State, an offline module is required using which the documents can be uploaded in batch mode when necessary bandwidth is available.

   Response of NIC Pune - This facility will be provided in the software.
   Chapter 4: Functional Requirements -> 4.2 Product function details ->
   M07: Registration -> FN0707: Manual Document Registration (Page no. 66)

   b. Units conversion - The State has decimal & acre as the measuring units but in the presentation katha was shown as the unit. Conversion of area unit from dismal (local   area unit) to be taken care in the proposed software -

   Response of NIC Pune - The software will have provision for configuring the conversion units by the respective states.
   Chapter 4: Functional Requirements -> 4.2 Product function details ->
   M03: Administration -> FN0305: Measurement Units (Page no. 45)

   c. Data Migration - Around 6 TB of data has to be ported to the new database.

   Response of NIC Pune - Data porting will be done during as one of the steps in the process of migration
   Chapter 6: Logical Data Requirements -> 6.2 Legacy Data Transfer (Page no. 123)

2.   Karnataka-

   a. SRO1 cannot have access to SRO2 data - The question raised was whether each SRO will have a separate database.

   Response of NIC Pune - Data isolation will be achieved logically and there will be only one database for the entire state.
   Chapter 1: Introduction -> 1.4 Project Scope (Page no. 7)

   b. Valuation - Peripheral areas of agricultural land have different rates of valuation, Inclusion of valuation in peripheral area for less than -equal to 5 Guntas (local unit) and for more than 5 Guntas and less than equal to 10 Guntas.

   Response of NIC Pune - Valuation module is very flexible and these type of variations can be handled by the software. The prototype is ready for testing. It can be tested for flexibilities that are required by the various states.
   Chapter 4: Functional Requirements -> 4.2 Product function details ->
   M01:Configuration   Management->FN0107a:Ready   Reckoner/Rate   chart   creation(Page no.30)
   M03: Administration -> FN0304: Property Dependency Attributes (Page no. 44)

   c. Slide 33 - Mentions Document Search - Search for including all documents registered and also documents pending for registration(unregistered documents & encumbrance documents) also required.

Response of NIC Pune - Search option will allow search of all pending documents viz. unregistered, draft documents
Chapter 4: Functional Requirements -> 4.2 Product function details ->
M09: Document Search (Page no. 70 & 71)

d. Generating of all receipts should be from the application software itself. Remittance Challan should be generated for payments which will be done on the next day. Feesto be remitted to Treasury next day by Challan. Challan formats also to be generated through the software. Challan is a mode of offline payment.

Response from NIC Pune Scanned Copy / formats of Challan to be shared with NIC Pune by IGR Karnataka.
Chapter 4: Functional Requirements -> 4.2 Product function details ->
M03: Administration -> FN0309: Stamp duty payment modes (Page no. 46)
M07: Registration -> FN0709: MIS Reports (Page no. 67)

e. Marriage Registration - Hindu and special marriage registration should also be facilitated in NGDRS-

Response of NIC Pune- The data and process is significantly different and hence can not be included in NGDRS. However standard data exchange interface will be provided in NGDRS.

f. Encumbrance module

NIC-Pune Response-
Chapter 4: Functional Requirements -> 4.2 Product function details ->
M07: Registration -> FN0711: Encumbrance Certificate (E.C) (Page no. 68)

3. Assam-
   a. NoC-Issued by Deputy Commissioners Office which fixes the property value
   b. Conversion of Units-

   NIC Pune Response- Each state will configure the NGDRS and set the conversion units.
   Chapter 4: Functional Requirements -> 4.2 Product function details ->
   M03: Administration -> FN0305: Measurement Units (Page no. 45)

   c. Connectivity issues; Does not relate with software

4. Uttar Pradesh-
   a. Compound Registration option should be provided for cases where single sale deed handles multiple properties (More than one location and more than one property in the same registration)

   Chapter 4: Functional Requirements -> 4.2 Product function details ->
   M06: Public data entry -> FN0603: Property details (Page no. 58)

   b. Pending document registration - Postponement of document-proceedings pending owing to under valuation and parties being absent on the date of registration already discussed above.

NIC Pune Response: The details may be provided.
Chapter 4: Functional Requirements -> 4.2 Product function details ->
M07: Registration -> FN0703: Admission & Identification process (Page no. 64)

5.   DoLR- Comments and suggestions of JS(LR)
   a. Each State has their own master codes and these need to be translated to uniform codes
   b. Alerts on email & mobile - will this be compulsory. There may be cases where the citizen may not have any of *these* -
   Response of NIC Pune - This feature is configurable
   c. Which of the 9 levels provided for work flow are compulsory-

   Response of NIC Pune - State, district and developed land type; only these three levels are compulsory
   Chapter 4: Functional Requirements -> 4.2 Product function details ->
   M01: Configuration Management -> FN0102: Administrative blocks in state (Page no. 27)

   d. Valuation varies widely from state to state. Therefore rule based valuation should not be rigidly done -

   Response of NIC Pune - configurable by the state but within a state there will be no change in valuation rules.
   Chapter 4: Functional Requirements -> 4.2 Product function details ->
   M01: Configuration Management -> FN0109: Valuation rule formation (Page no. 32)

6.   NIC Delhi - Comments & Suggestions of DDG,DC Misra

   a. 27% of modules would be one time activity in a year configuration modules which will take care of the state specificities.
   Chapter 4: Functional Requirements -> 4.2 Product function details ->
   M01: Configuration Management (Page no. 27)

   b. Web client which will be down loaded at client end and will communicate with the NGDRS server, should be named NGDRS client
   Chapter 4: Functional Requirements -> 4.6: NGDRS Clients (Page no. 110)

   c. Matrix showing the names of use cases and their mapping to functionality may be provided in the SRS. Total no. of use cases may also be provided.
   Chapter 4: Functional Requirements -> 4.3: Use cases (Page no. 78)