

UPSRLM

PRERNA Budget Monitoring System

Design, Development, Implementation & Maintenance of the
Financial Budget Monitoring System integrated with PFMS

Uttar Pradesh State Rural Livelihood Mission

SOFTWARE REQUIREMENT SPECIFICATIONS

V1.0 | Mar 24, 2022

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Contents

1. Document Control	4
2. Preface	5
3. Statement of Confidentiality	6
4. Introduction	7
5. Uttar Pradesh State Rural Livelihood Mission	8
6. TROOLOGY	9
7. Project Overview	10
8. Scope of Work	11
8.1 Scope of Work	23
8.2 Application Architecture.....	26
8.3 Application Development Life Cycle.....	27
8.4 Project Management Methodology	10
8.5 Project Implementation Plan.....	11
8.6 Technology	13
9. Definition, Acronym & Abbreviations.....	18
10. Technologies Utilized.....	19
11. Assumptions, Dependencies & Constraints.....	22
12. System Architecture	23
13. Non Functional Requirement	25
14. User Requirement	29
15. License Requirement	29
16. Interface Requirement	30
17. Design Interface.....	31
18. Impact of the System Implementation.....	40
19. Conclusion	41
20. Glossary	42
21. Remarks & Feedback	44

Uttar Pradesh State Rural Livelihood Mission

PRERNA Budget Monitoring System

Modules:

1. Master Setup
2. Scheme wise Limit Setting
3. District & HO Demand Requisition Management
4. Demand Approval Management
5. Integration with PFMS
6. Payment Advise Generation
7. Vendor Checklist Management

Software Requirement Specification Document

Version 1.0

Date: 24 March 2022

Implementing Agency	Development Agency
ICICI Bank Ltd	TROOLOGY

1. Document Control

TROOLOGY presents this Software Requirement Specification Document for the Design & Development, Implementation & Maintenance of the PRERNA Budget Monitoring System for Uttar Pradesh State Rural Livelihood Mission, Government of Uttar Pradesh.

Client Information:

Client	Uttar Pradesh State Rural Livelihood Mission, Government of Uttar Pradesh
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2. Preface

Purpose of this document

This Software Requirement Specification (SRS) is to render a detailed description of **Design & Development of PRERNA Budget Monitoring System for Uttar Pradesh State Rural Livelihood Mission**. It shall also illustrate the purpose, interface, interactions with external applications and system constraints for the development of these features & modules. This document is primarily intended as a proposal to UPSRLM (Uttar Pradesh State Rural Livelihood Mission) for its approval and a reference base for developing the system for further working.

Intended Audience

The document is intended for the UPSRLM department personnel who are well familiar with the organizational processes. It will enable you to understand the behavioural details of the web and mobile application solution described in this document.

3. Statement of Confidentiality

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4. Introduction

TROOLOGY presents this **Software Requirements Specification** document to **Uttar Pradesh State Rural Livelihood Mission** for the **Design & Development of Enterprise Budget Monitoring System – PRERNA Budget Monitoring System** to manage and monitor the budget allocation and enable digital transformation for the demand requisition from all the District Offices.

TROOLOGY, in its capacity of Solution Consultant & Integrator has proposed the Design & Development of Enterprise Budget Monitoring System for managing demand requisition and budget allocation.

The users of the system shall be:

- (a) Head Office
- (b) District Office
- (c) Block Office
- (d) Designated Officers at the above office
- (e) District Collectorate
- (f) Chief Finance Officer
- (g) Managing Director
- (h) Accounts Officers

TROOLOGY would like to thank once again UPSRLM to provide us with a wonderful opportunity to demonstrate our strength in our domain and we ascertain to deliver the best of the services.

5. Uttar Pradesh State Rural Livelihood Mission

Uttar Pradesh State Rural Livelihood Mission, known as UPSRLM under Department of Rural Development, GoUP is functioning as nodal agency for implementation of various livelihood schemes in the state.

Efforts are being made to develop the capacity by forming SHGs, CBOs, BCs with the support & mobilization of CLFs under each Districts.

Functions of Agency are as follows:

- Promotion of livelihood mission across the State of Uttar Pradesh
- Mobilization & formation of SHGs, CBOs, BCs
- Training & Capacity Building
- Information & Awareness Drives
- Creating Village Level Entrepreneurs

6. TROOLOGY

TROOLOGY, an ISO/IEC 27001:2013 & ISO 9001:2015 certified organization, is a group started by young, dynamic and experienced professionals in the field of Information Technology & Allied Services. We strive to deliver the technologically driven values to your business process and streamlining the organization-wide processes.

With substantial experience in delivering small, medium & large scale Websites, Web-based Applications, Mobile Applications, eGovernance Consulting, Industrial Solutions, TROOLOGY has set a benchmark in its field with its quality and service-oriented approach for its esteemed clients.

TROOLOGY, as your trusted technology partner, stands affirm to conceptualize, consult, develop and implement the complete solution along with complete handholding to ensure smooth transition to the new digital transformation of the organization.

Committed to breaking new frontiers in technology TROOLOGY, an ISO/IEC 27001:2013 & ISO 9001:2015 certified organization, is a group started by young, dynamic and experienced professionals in the field of Information Technology & Allied Services.

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7. Project Overview

The objective of the Project is the Design & Development of Enterprise System for budgeting under the various Schemes and enabling the requisition of the Demand under the schemes for the expenditure. The proposed PRERNA Budget Management System for UPSRLM will be developed utilizing our best practices in Project Management and expertise in the MEAN stack platform.

The Uttar Pradesh State Rural Livelihood Mission (UPSRLM) is a State institution that functions as the apex body providing support to District & Block Offices for enabling rural livelihood through various schemes.

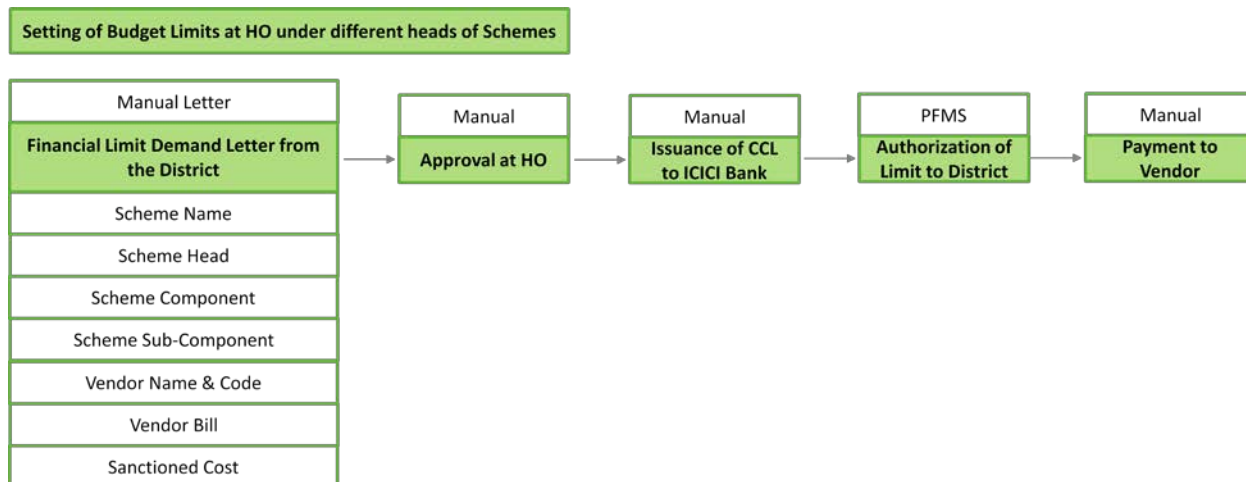
This document gives the detailed description for the development of the said application modules along with their Implementation strategy and the resource allocation for successful monitoring of the Project.

TROOLOGY will be catering the whole responsibility of developing the Application modules which will include project study as well as application development, its testing, hosting, implementation, training & maintenance.

8. Scope of Work

1. Functional Scope of Work

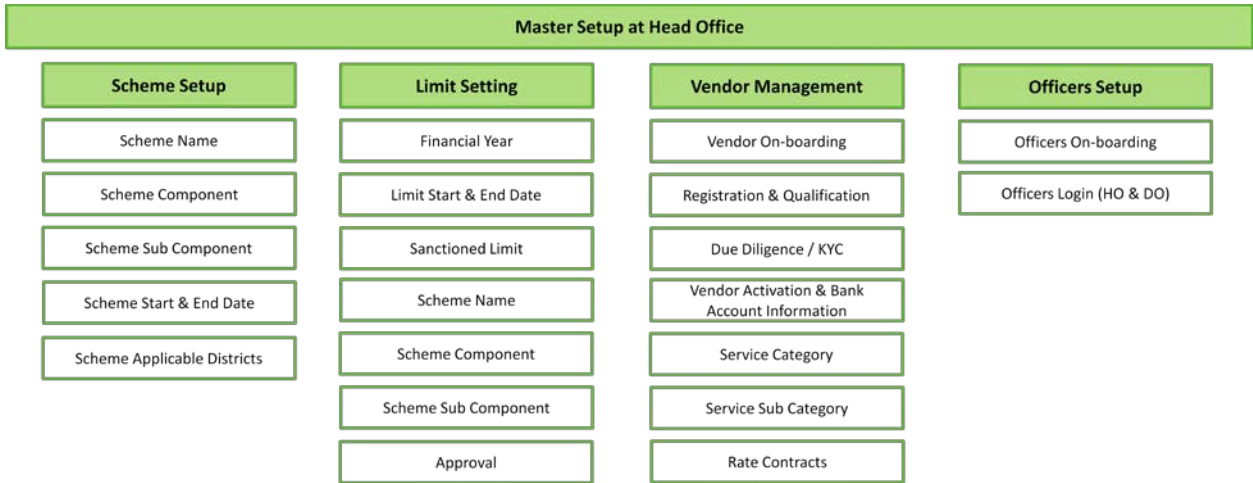
[A] Current Workflow Structure



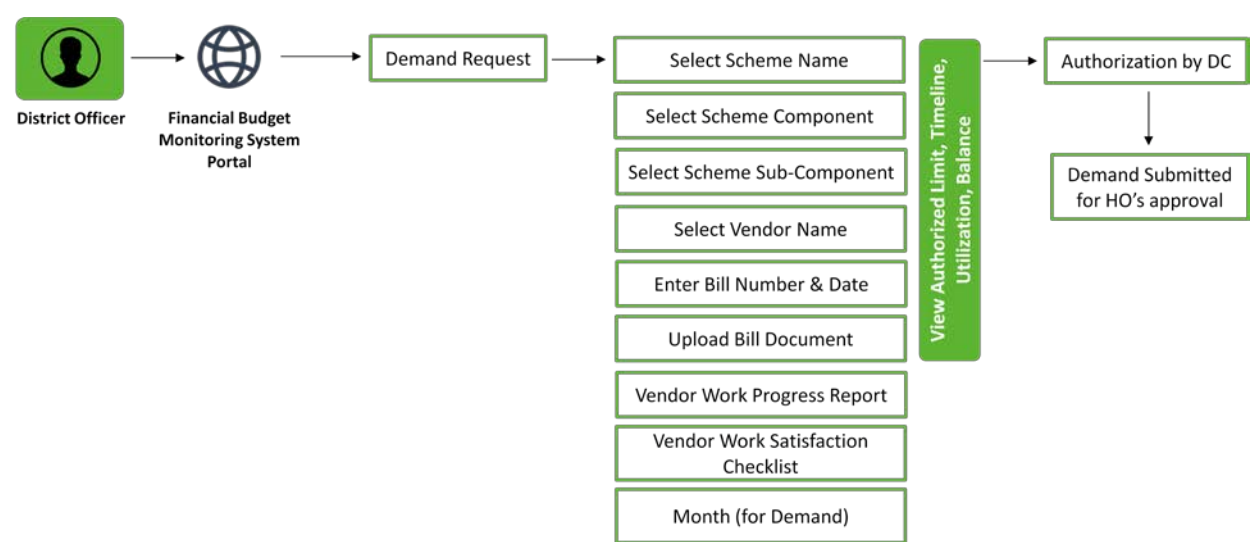
Challenges in the current workflow structure:

- Lack of clarity of fund utilization at District
- Lack of information for Vendor's Payment
- Incorrect utilization of funds
- Disparity between fund allocation vs fund utilization
- Non availability of the reports
- Lack of system at the District Level

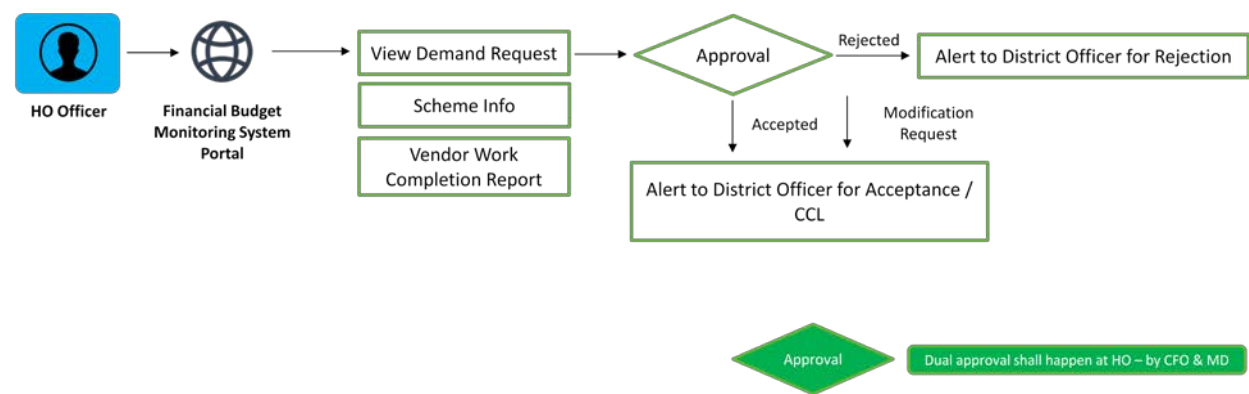
[B] Proposed Workflow Structure



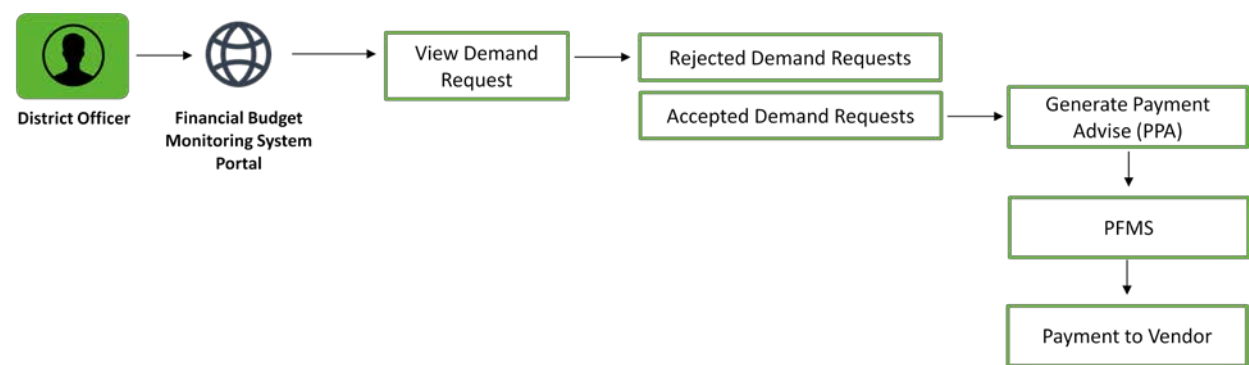
[B.1] Mechanism for Demand Request



[B.2] Mechanism for Demand Approval at Head Office



[B.3] Payment post Approval



[B.4] Integration with PFMS – Public Financial Management System

Introduction

The General Financial Rules (GFR-2017) 232(V) prescribes the principle for release of Funds under CSS to State Governments and monitoring the utilization of funds through PFMS. With a view to have more effective cash management and to bring more efficiency in the Public Expenditure Management, Ministry of Finance, Government of India issued Office Memorandum F.No.1(13)PFMS/FCD/2020 dated 23-03-2021 detailing the procedure to be adopted for release of funds under CSS. This procedure is required to be followed by all State Governments and Union Territories and Ministries/ Departments of Government of India with effect from 01-07-2021.

1. Flow of Funds

Ministries/Departments of Government of India advise Reserve Bank of India (RBI) to credit the State Government and UTs (with legislature) Accounts held in RBI (except Sikkim) debiting Gol's account. On receipt of intimation from RBI, State Governments shall transfer the funds along with State's own share into the bank account of Single Nodal Agency (SNA) as per the time limit prescribed in Para 16 of the OM. The fund stays in the SNA Account and does not percolate down to the agencies down below. SNAs, if necessary, are permitted to open Zero Balance Subsidiary Accounts (ZBSA) for down the ladder agencies (IA). GFR 232(v) further prescribes that funds will be released to States strictly on the basis of balance funds of the CSS (both Central and State's share) available in the State treasury and bank account of the SNA as per PFMS or scheme specific portals fully integrated with PFMS.

2. Preliminary Activities

- (a) The existing set up of various users viz. SPMU Controller, SPCU, State Finance Department user, State Scheme Manager (SSM), Agency Approver Level 2 shall continue. These users will be responsible for approving SNAs, configuring/on boarding State Linked Scheme (SLS) and create environment for IAs to use PFMS
- (b) State Governments/ Union Territories shall notify a Single Nodal Agency (SNA) for implementing each State Linked Scheme (SLS) corresponding to Centrally Sponsored Scheme (CSS). If SLS is not available, same has to be created
- (c) The SNA has to open a Bank Account (savings bank account) for each SLS corresponding to Centrally Sponsored Scheme. This is considering the fact that a single CSS could be implemented by more than one department in a state. Thus, there can be multiple SLS (similar for umbrella scheme)
- (d) The bank account for SNA and IAs should be opened in a scheduled commercial bank having a robust IT system
- (e) The existing bank accounts of IAs should be closed and the funds lying in these accounts must be transferred to SNA account before configuring the scheme on SNA mode

- (f) The SSM while registering/configuring an SNA for an SLS will flag the agency as SNA by selecting appropriate option available on PFMS. All existing bank accounts of IAs will be made 'not in use' by the system
- (g) IAs can either operate upon SNA Account directly or ZBSA as per operational requirements. If the SNA opts for having ZBSA for the IAs, fresh ZBSAs should be opened. The new ZBSA should be in the same branch or different branches of the SNA's bank
- (h) In the case of schemes implemented using PD Accounts or accounts of similar style, the balances need to be transferred to SNA account
- (i) States to open separate budget lines for Centre's and State's share of funds, if it is already not there, and share the existing/newly opened budget lines through PFMS-State treasury interface clearly indicating whether a particular head of accounts pertains to centre's share or otherwise. Once the exercise is over, states need to share the data afresh from the beginning of the financial year, after making necessary accounting entries

3. Mapping of Agencies

SSM need to approach, State Directorate of PFMS stationed in the State Headquarters, with all relevant details such as SLS codes, Bank Account numbers of SNA and ZBSAs, hierarchy of implementation of the SLS etc. for configuring the same in the PFMS portal.

- (a) The SNA and all IAs need to be registered on PFMS for the respective SLS. It will be the responsibility of the SSM to register and map the first level agency i.e. SNA in the hierarchy, for the Scheme (s) administered by him
- (b) Further registration of IAs and mapping the IAs in the hierarchy can be carried out by the upper level agencies

4. Mapping of Schemes

- (a) GoI Funds and the corresponding State's share would be transferred to the SN account from the treasuries. State treasury system (IFMS of State) should have the information of SLS, unique code, bank accounts of SNA. These details will be shared by PFMS with State treasuries through web service or any other mode
- (b) On release of funds to SNAs by the State treasury system, the payment and other details as per point 1 above should be shared with PFMS through the Treasury Integration route
- (c) The Finance Department in the State shall ensure that the SLS and corresponding heads of accounts (both Centre and State share) are mapped correctly in the PFMS-State Treasury interface. The details can be accessed from TRSY03 report
- (d) Finance Department in the State shall ensure interchange of data with PFMS through Treasury interface module on daily basis. This will facilitate provision of accurate information to various MIS users of GoI and States to monitor the utilisation of funds

5. Models for integration – Various Modules

Keeping in view that some States already have dedicated systems for schemes, states may choose one of the following methods (for each scheme) available in PFMS:

Model – 1 Use of external system through REAT integration (MIS-Only)

External system provides for all operations – viz. setting of drawing limits, account validation of beneficiaries, etc. including payment and provides MIS to PFMS as per REAT Integration document of PFMS.

- (a) In this scenario, SNA External System is required to develop an end to end solution for SNAs and IAs with the facility to process account validation and payments. The SNA's IT system will be integrated with PFMS as an external system for REAT integration through SFTP mode to share MIS data
- (b) All the masters like Scheme codes, Scheme definition, Scheme hierarchy, Scheme components will be shared to SNA's IT System by PFMS through an API
- (c) The State Nodal Agency code and all its Program Implementing Agencies code, LGD master, payment purpose master, DBT mission code, PFMS bank/branch master and other relevant master data will also be shared to SNA's IT system by PFMS through an API
- (d) SNA logs into the IT system and allocates limits to all child agencies based on budgetary requirements received from child agencies. The limits set on SNA's IT system are exchanged with PFMS through an API. These limits may change or be reallocated by SNA depending on the additional requirement of funds or underutilization of funds by implementing agencies. Any modifications in the limits are to be shared with PFMS through SFTP integration
- (e) SNA and IAs upload/enter their beneficiary/vendor details on SNA's IT system and validates beneficiaries/vendor through the arrangements made in its own system. After the successful validation of vendor/beneficiary account, the vendor/beneficiary details may be shared with PFMS through SFTP mode for generation of vendor/beneficiary code in PFMS which will be informed back to the SNA's IT system so that the IT system can send the transaction details as MIS to PFMS having PFMS vendor code specified at credit level in MIS file. (Message Exchange format specified in REAT integration document)
- (f) SNA and IAs logs into the IT system. The Payment order (FTO) is processed on the system and validated against limits for all Program Implementing Agencies making payments. The FTOs are then shared with the SNA's Bank through an IT integration with the Bank

- (g) The Bank makes the payments through NACH (NPCI) and sends updated response status of all such payments to the SNA's IT system
- (h) The transaction data for all successful payments made is then required to be shared with PFMS as MIS data (Message Exchange format of MIS data is specified in REAT integration document) through SFTP integration
- (i) All MIS/dashboard is made available on SNA's IT System (and on PFMS) viz. SNA's Bank Account Balance, limits vs Expenditure by PIAs, etc.

***Model – 2 Use of external system through REAT integration (MIS + Payments)**

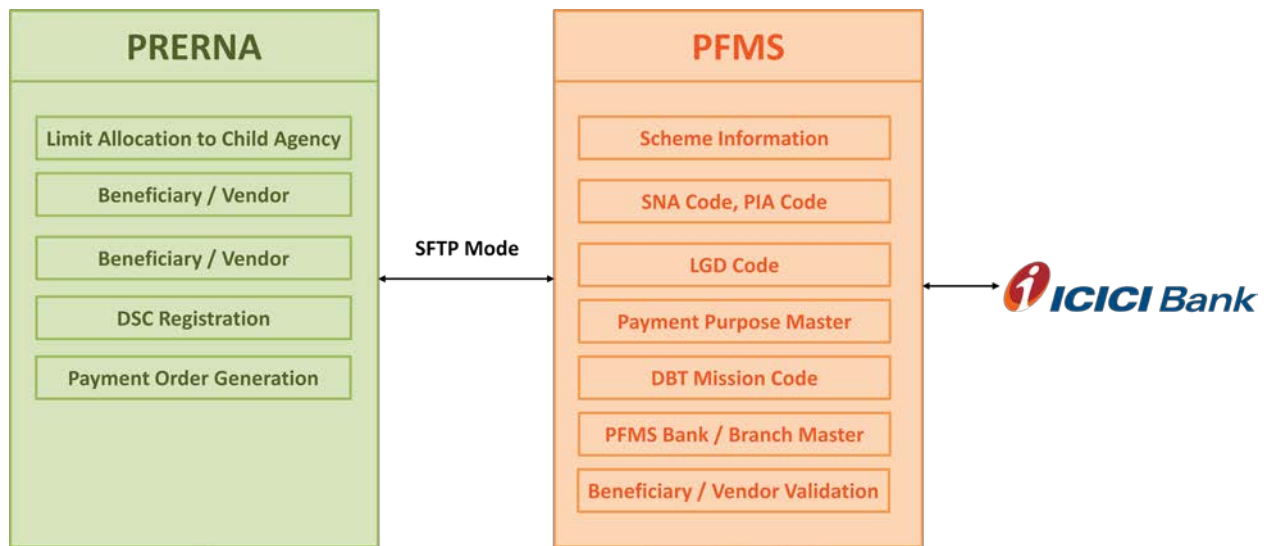
External system provides for all operations but payment is done in PFMS. The integration should be as per the integration protocols designed by PFMS. The process is elaborated as under:

- (a) State Nodal Agency's (SNA) IT system will be integrated with PFMS as an external system through SFTP mode
- (b) All the masters like Scheme codes, Scheme definition, Scheme hierarchy, Scheme components will be shared to External SNA's IT System by PFMS through an API
- (c) The State Nodal Agency code and all its Program Implementing Agencies code, LGD master, payment purpose master, DBT mission code, PFMS bank/branch master and other relevant master data will also be shared to External SIS by PFMS through an API
- (d) SNA allocates limits to all child agencies based on budgetary requirements received from child agencies on their IT system (SIS). The limits set on SIS are exchanged with PFMS through SFTP based REAT Integration. These limits may change or be reallocated by SNA depending on the additional requirement of funds or underutilization of funds by implementing agencies. Any modifications in the limits are to be shared with PFMS through SFTP as mentioned earlier
- (e) State Nodal Agency as well as child implementing agencies have to first validate their beneficiaries through Beneficiary validation service of PFMS. The beneficiary details will be uploaded on SNA's IT system by SNA and IAs which will then be pushed to PFMS in XML format through SFTP mode for validation or the SNA system may use Centralized Beneficiary validation service on the fly to validate banks details/Aadhaar details while capturing the Vendor/Beneficiary data in SNA's IT system. In case of SFTP mode, PFMS will pick up the beneficiary details from SNA's SFTP, segregate the bank account details of beneficiaries, bank wise and push then to banks' SFTP for validation by banks. Aadhaar number details are pushed to NPCI for validation. On receiving the Account validation response from banks and Aadhaar number validation response from NPCI, PFMS generates beneficiary code for all those beneficiaries whose bank accounts and Aadhaar

number are successfully validated. The beneficiary validation status is shared back to SNA's IT system through SFTP / CBM service. The SNA's IT system are advised to generate payment for only validated beneficiaries for whom the beneficiary code is shared otherwise payment orders get rejected at PFMS end

- (f) Program Implementing Agencies also have to register their digital signatures on SNA's IT system and their DSC enrollment details have to be shared to PFMS by SNA's IT system in XML format through SFTP mode. This will enable PFMS to validate the digitally signed payment orders received from SIS
- (g) The Payment orders (FTO) are to be processed by Program Implementing Agencies on the SIS and validated against drawing limits for all PIAs making payments. Once an FTO is generated, the drawing limits of the concerned PIA should be reduced by debit amount in the FTO. For all DBT payments processed by PIAs, the DBT mission code is to be mandatorily specified in the payment order to be sent to PFMS. The digitally signed FTOs are sent to PFMS SFTP. PFMS in turn would process the payment files by validating the signatures against the DSC enrollment details sent by SIS earlier and send the FTOs to SFTP location of State Nodal Agency's bank
- (h) The Bank makes the payments through NACH (NPCI) and sends response files to PFMS. PFMS in turn would send the credit response to SNA's SFTP
- (i) SNA's SIS picks up response from SFTP and updates transaction status of all payments initiated
- (j) All MIS/dashboard is made available on SIS (and on PFMS) viz. SNA's Bank Account Balance, limits vs Expenditure by PIAs

*This proposed system for UPSRLM is following the Model 2 of PFMS Integration.



Integration Model

Model – 3 Use of REAT Module (agencies using PFMS)

Both SNAs and IAs will use REAT module of PFMS for transactions. Prior to any transactions (expenditure/receipts) drawing limits have to be set by the upper level agency. Payments would be made by the SNAs/IAs directly debiting the SN Account. Where expenditure transactions of IAs using ZBSA are made, this will initially be debited against the ZBSA and the debit will be set off by debiting SN Account. In both cases, the expenditure will be incurred selecting the scheme component, as being done presently. Every expenditure transaction will be validated against the limit balance. A report for monitoring the limits would be available for the SNA and other agencies in the hierarchy. The process is elaborated as under:

- (a) The Single Nodal Agency logs into the PFMS portal and allocates limits to all child implementing agencies down the ladder based on budgetary requirements received from child agencies. These limits may be changed or reallocated by SNA depending on the additional requirement of funds or underutilization of funds by Implementing agencies
- (b) State Nodal Agency and the IAs have to upload their beneficiary/vendor details either through data entry UI or excel upload for getting their bank account details and/or Aadhaar number validated for making payments. All those beneficiaries whose banks accounts and/or Aadhaar number are successfully validated will get beneficiary code and becomes eligible for receiving payment
- (c) The State Nodal Agency and implementing agencies have to configure their mode of payment (DSC, PPA/ePA) before starting payment processing. All those agencies who have opted for DSC payments have to enroll their digital signatures on PFMS portal prior to processing payments. The DSC enrollment details are pushed to the SNA's bank for validating the digitally signed payment orders received by the bank later
- (d) For valid beneficiaries, the Payment orders (FTOs) are generated/processed on PFMS portal by SNA and IAs against their available limits only. As soon as an FTO is generated and approved/digitally signed, the limit of the respective agency will be reduced by the debit amount in the FTO. The FTOs are sent to SNA's Bank SFTP location
- (e) The bank need not maintain any drawing limits set for Implementing agencies to validate the payment instructions against available limits. All these will be managed by PFMS. No payment orders will be generated in PFMS unless debit amount is within the available drawing limits of the agency. On receiving the payment instruction, bank has to simply check the availability of funds in the single nodal account. If the funds are not available, bank has to give debit failure with the reason "Insufficient Funds" in the DEBIT RESPONSE
- (f) All the DSC / ePA payments generated by State Nodal Agency and Implementing Agencies are to be processed centrally by the bank where as all PPA payments generated by Implementing agencies will be processed by the local branches of their subsidiary

accounts and those generated by State Nodal Agency are to be processed by local branch of SNA account

- (g) Bank has to ensure that null values in ZBSA by sweeping the debit balances in the main account (Single Nodal Account)
- (h) The Bank makes the payments through NACH (NPCI) and sends response files to SFTP
- (i) PFMS picks up response from SFTP and updates transaction status of all payments initiated
- (j) All MIS/dashboard is made available on PFMS viz. SNA's Bank Account Balance, limits vs Expenditure by PIAs, etc.
- (k) Some MIS reports are being finalized & generated. The currently available EAT / Treasury reports for MIS are given in Annexure – II of the Final SOP of the PFMS Models
- (l) The Banks do not need to make any changes in the existing interface with PFMS and follow same protocol as is currently in place

Model – 4 Using State IFMIS

The SNA and all IAs work on Integrated Financial Management Information System (IFMIS) of the State integrated with PFMS. In this system SNA account cannot be operated from the Treasury. The State must designate SNAs, Open Single Nodal Account of SNAs in banks and map them in IFMIS. Transfer of funds to PD account or any other account of similar style, by the State or keeping funds in the Consolidated Fund of the state shall not be permitted. In other words, the payments pertaining to the scheme is routed through the SNA account. State IFMIS will be integrated with PFMS as an external for REAT integration through SFTP mode to share validated vendor/beneficiary data and transaction MIS data. Masters like Scheme codes, Scheme definition, Scheme hierarchy, Scheme components etc. will be shared to State IFMIS by PFMS through an API. All MIS/ dashboard is made available on State IFMIS (and on PFMS) viz. SNA's bank account balance, limits vs expenditure by SNAs and IAs, etc.

8.1 Scope of Work

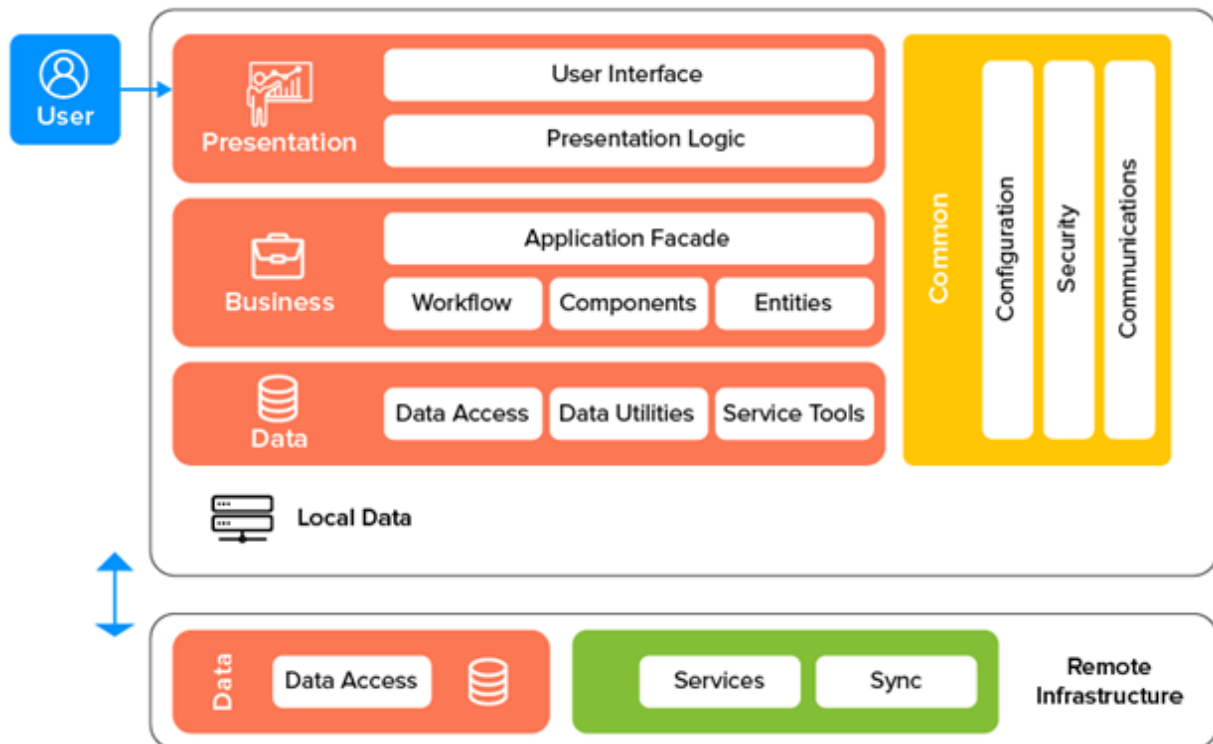
[A] Design, Development & Implementation of the Enterprise Financial Budget Monitoring System

Module	Description
Master Module	Scheme Setup <ul style="list-style-type: none"> • Scheme Name • Scheme Component • Scheme Sub Component • Scheme Start Date • Scheme End Date • Scheme Applicable Districts
	Limit Setting <ul style="list-style-type: none"> • Financial Year • Limit Start Date • Limit End Date • Sanctioned Limit • Scheme Name • Scheme Component • Scheme Sub Component
	Vendor Management <ul style="list-style-type: none"> • Vendor On-boarding • Registration & Qualification of the Vendor • Due Diligence / KYC of the Vendor • Vendor Activation • Vendor Bank Account Information • Vendor Service Category • Vendor Service Sub Category • Vendor Rate Contract
	Officers <ul style="list-style-type: none"> • Officers On-boarding • Officers User Login (Head Office, District Office)
	User Roles & Permissions

Module	Description
District Officer	Demand Request <ul style="list-style-type: none"> • Select Scheme Name • Select Scheme Component • Select Scheme Sub Component • Select Vendor / CLF • Enter Bill Number • Enter Bill Date • Upload Bill Document • Upload Vendor Progress Report • Upload Vendor Work Satisfaction Checklist • Select Month for Demand Request • View Authorized Limit (under selected Scheme) • View Amount of Fund Utilized • View Balance Fund (under selected Scheme) • Authorization of the District Officer
	Demand Request Management <ul style="list-style-type: none"> • View Demand Requests <ul style="list-style-type: none"> ○ Accepted Requests <ul style="list-style-type: none"> ▪ Push data to PFMS ▪ Generate Payment Advise ▪ Payment to Vendor ○ Modification Requests <ul style="list-style-type: none"> ▪ Modify Demand Requests ▪ Submit for Approval / Generate Payment Advise ○ Rejected Requests <ul style="list-style-type: none"> ▪ Rejected Demand Requests ▪ Same Demand with same Scheme Sub Component with same Vendor & Bill Number will not be accepted
	MIS Reports <ul style="list-style-type: none"> • Scheme Report • Vendor Report • Vendor Satisfaction Report • Allotted Fund Report (scheme wise) • Utilized Fund Report (scheme wise) • Un-utilized Fund Report (scheme wise) • Limit getting expired in next 7 days • Limit getting expired in next 15 days • Demand Reports <ul style="list-style-type: none"> ○ Accepted Demands ○ Modified Demands ○ Rejected Demands

Module	Description
Head Office	Demand Request <ul style="list-style-type: none"> • View Demand Requests • View Scheme (under which Demand is requested) • View Vendor Work Completion Report • View Vendor Work Satisfaction Checklist
	Demand Approval Management <ul style="list-style-type: none"> • Approval / Rejection / Modification of the Demand <ul style="list-style-type: none"> ○ Approval <ul style="list-style-type: none"> ▪ 3-tier Approval ▪ Alert to District Officer with CCL ○ Rejection <ul style="list-style-type: none"> ▪ Alert to District Officer ○ Modification <ul style="list-style-type: none"> ▪ Alert to District Officer for required modification
	MIS Reports <ul style="list-style-type: none"> • Scheme Report • District wise Fund Allocation vs Utilization Report • CLF Report • Vendor Report • Vendor Satisfaction Report • Allotted Fund Report (scheme wise) • Utilized Fund Report (scheme wise) • Un-utilized Fund Report (scheme wise) • Limit getting expired in next 7 days • Limit getting expired in next 15 days • Demand Reports <ul style="list-style-type: none"> ○ Accepted Demands ○ Modified Demands ○ Rejected Demands

8.2 Application Architecture



The three-layer architecture is used for designing Web portal architecture. It refers to the component's internal architecture. Given are the main three important layers of mobile architecture design:

PRESENTATION LAYER (Client/Front End)

The presentation layer consists of two components. These two components include the User Interface and UI process. In this layer, the primary focus is the end user's application's presentation. During the presentation layer stage, it needs to decide on many important things. These include themes, fonts, colors, and shadings.

BUSINESS LAYER (Middle Tier)

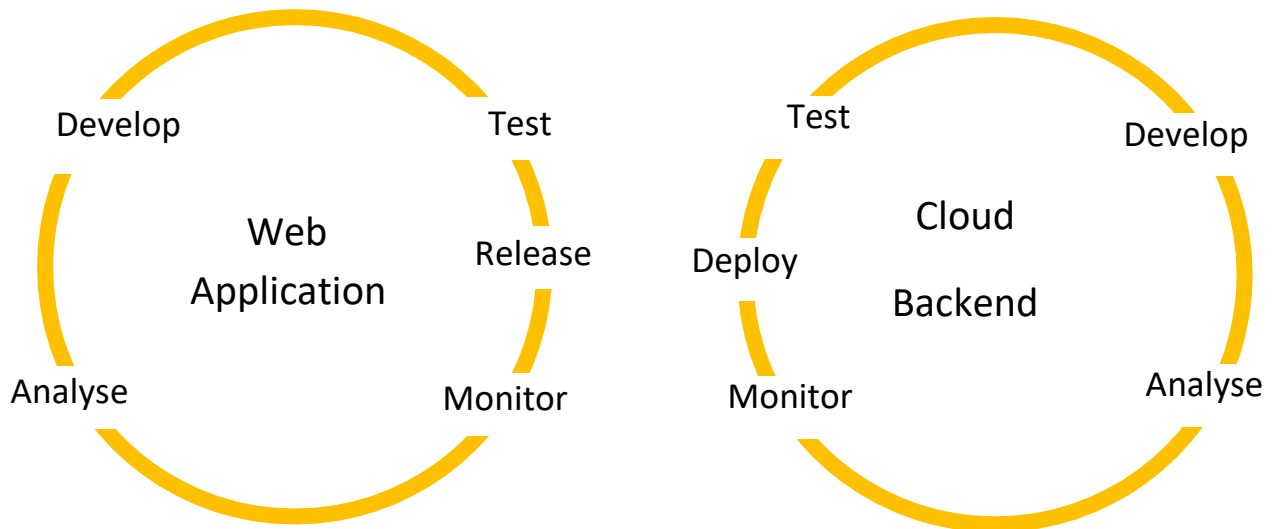
The business layer is for the elements on the business front. This layer looks at how the app will present the business to the end-users. This layer includes business components, workflow, and entities. There are two parts of this layer to reduce the complexity.

DATA ACCESS LAYER (Back End)

The data access layers are to meet the application's needs. It offers efficient and secure data transactions. For this purpose, a developer needs to design this layer. It combines different parts including data utilities, data access components, and service agents.

8.3 Application Development Life Cycle

Web application architecture is a set of structural elements along with their interfaces that compose the system. It includes techniques which help one in developing a web application. The application architecture is formulated by taking all procedure that works online. This set of systems helps to avoid customer problems.



8.4 Project Management Methodology

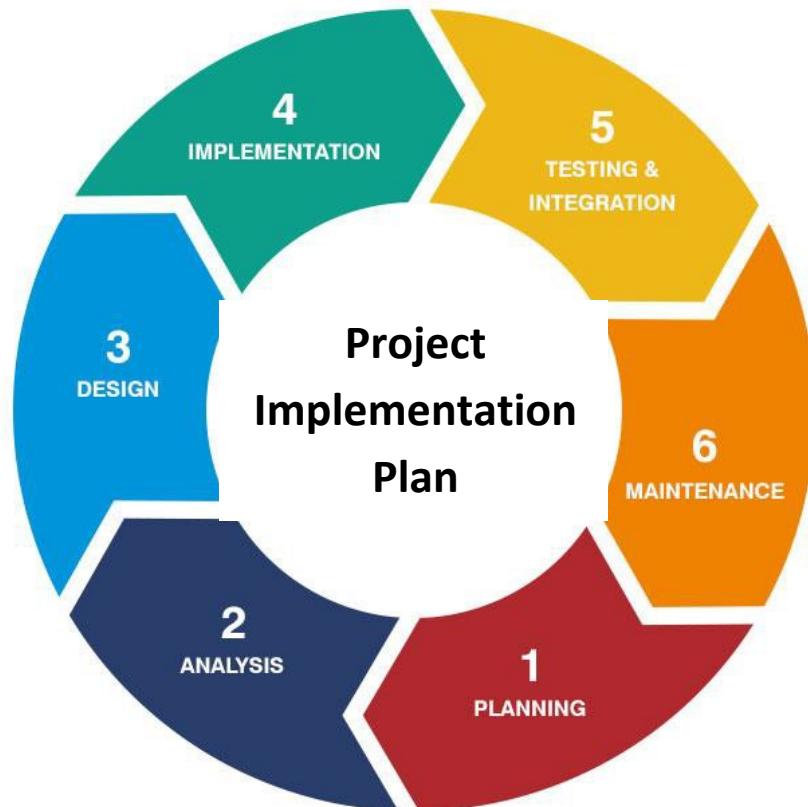
In order to facilitate efficient delivery, we will approach the project with our best project management practices. We will follow the agile methodology to manage the project by breaking it up into several phases. It involves constant collaboration with stakeholders and continuous improvement at every stage. Once the work begins, teams cycle through a process of planning, executing and evaluating. Continuous collaboration is vital with team members and project stakeholders.

The Project Management Team focuses on successful project deployment for the client. Our best practices are based on PMI standards for Project Management that includes processes such as Initiating, Planning, Executing, Controlling, and Closing the Project.



8.5 Project Implementation Plan

We will manage the project using best practice project management techniques to ensure that the work is done at a cost and time. As part of this exercise, the project is divided into several different work packages, which enables the progress to be effectively monitored.

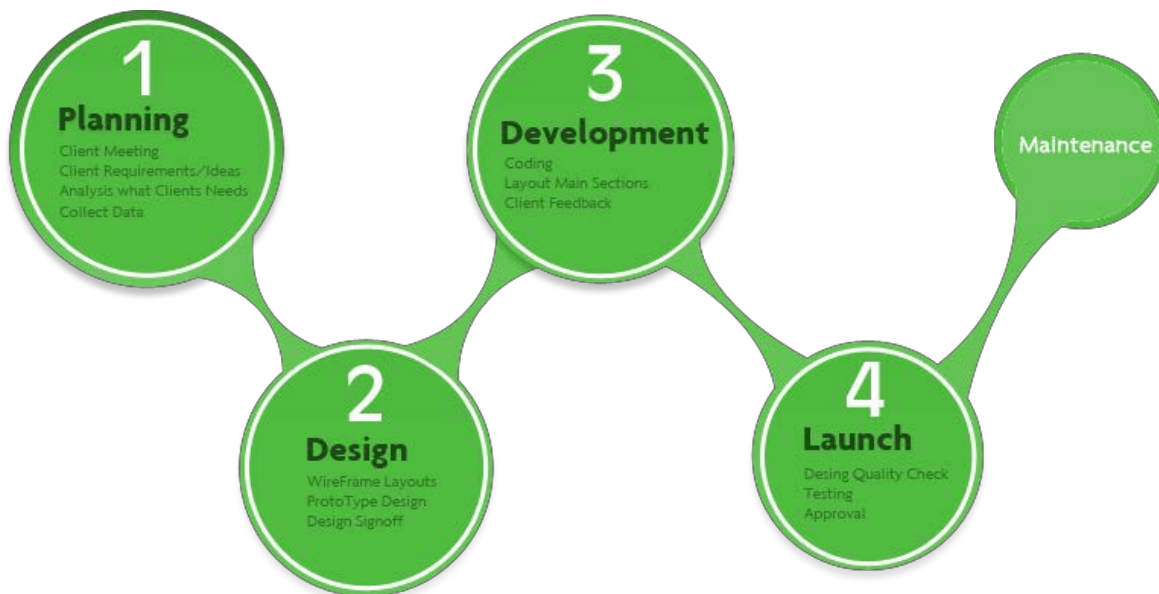


The implementation work structure will be divided into phases:

S. No.	PHASE	DESCRIPTION
1	System Study	Understanding the various requirements of the client will carry out a detailed study.
2	Requirement Gathering	Various requirements will be gathered using the predefined Formats to enable us to do the proper conceptualization of the system proposed.
3	System Conceptualization	We will conceptualize the process as a whole by logically linking the information gathered in the previous phase i.e. requirement gathering phase.
4	System Analysis & Design	A detailed system analysis will be done in this phase, which will help us to pinpoint the requirements as well as the solutions. This will be followed by a design phase in which we will design various components of the system to make it robust and expandable.
5	Database Modelling	This will be a very important phase in the whole development cycle. We will design the database by keeping various aspects of the requirements and the solutions.
6	Application Development	After passing all the previous Six phases, the actual coding will start. In this phase, we will develop the application as per the requirements. The development progress will be shown to the client from time to time and in case there are any changes suggested in the application then these would be incorporated in the application provided these are in the scope
7	Testing/Bug Fixing	In this phase, various types of test procedures will be followed to test how the application reacts in various test conditions. Any bugs if found will be fixed during this phase. This will ensure that the application will be delivered bug-free.
8	User Acceptance Test	In this phase, the client has to ensure that the application has been developed in accordance with the requirements and will test the application. The client will give final approval for the implementation of the application.
9	Implementation	After the user acceptance test by the client, the application will enter into the implementation phase. After successful implementation, the project will be formally closed.
10	Maintenance & Support	The maintenance/support phase will come into force after successful implementation is done. In this phase, the application will be supported by our expert engineers, which will provide their support in case of any problems.

8.6 Technology

Development Phases	Tools & Technology
Requirement Analysis, Proposal Drafting, SRS writing and Wire framing	MS Office Word MS Office Power Point
Design	Adobe Photoshop, Illustrator, XD
System Development	Database – MySQL Development – AngularJS, NodeJS
Quality Assurance & Testing	Test Cases & Plans – MS Office Word Testing – Manual Bug Tracking and Reporting Tool



2. Modular Scope of Work

a. Master Setup

Owner	Module	Sub-Module
Head Office	Scheme Management	Scheme Name & Scheme Components <ul style="list-style-type: none"> • NRLM • NRETP • SVEP • MKSP • RSETI
		Limit setting as per the Scheme Sub Components
		Date Validity of the Scheme as per the Scheme Sub Component
		Applicable District of the Scheme as per the Scheme Sub Component
		Scheme Classification <ul style="list-style-type: none"> • Administration • Workshop / Training • Resource Person • Cadre Payment • Drive Payment
	Office	State Unit District Unit Block Unit
	Designation	Officer Designation
	Vendor	Vendor Management
	Vendor Type	Vendor Type Management <ul style="list-style-type: none"> • CLF • SHG • SRP • DRP • BRP • BANK SAKHI • FLCRP • KRISH / PASHU SAKHI • FNHW CRP • ICRP • External Party
		Vendor Service <ul style="list-style-type: none"> • Vendor Service Type Management
		Vendor Sub Service Category <ul style="list-style-type: none"> • Vendor Sub Service Type Management
		Officer / User <ul style="list-style-type: none"> • List of the Officers / Users as per the designated offices

b. Limit Setting

Owner	Module	Sub-Module
Head Office	Set Limit	Scheme
		Scheme Component
		Districts
		Date From
		Date To
		Amount

c. Demand Requisition

Owner	Module	Sub-Module
SMMU / DMMU / BMMU	Demand Requisition	Scheme
		Scheme Component
		Vendor
		Bill Information
		Vendor Checklist
		Vendor Progress Report
		Vendor Satisfaction Report
	Demand View	Scheme Information
		Limit Amount
		Expenditure
		Balance
		Amount of Request
		Status

d. Actions [against Demand Requisition]

- Accept Demand
- Reject Demand
- Request Modification

e. MIS Reports

Owner	Module	Sub-Module
Head Office / DMMU / BMMU	MIS Reports	Scheme wise Sanctioned Limit Amount
		Scheme wise Expenditure
		Scheme wise Balance
		Limit as per the Districts
		Expenditure as per the Districts
		IUFR Report
		Scheme Classification wise Report

3. Hosting of the Application on Windows Server

Server Specifications are as following:

- Operating System: Windows Server 2008 R2 Web Edition (64bit) Disk Controller: RAID
- Hard Drive: 500 GB SA-SCSI 15K RPM
- Public Bandwidth: 5000 GB Bandwidth
- Uplink Port Speeds: 100 Mbps Public & Private Network
- Network Port: 100 Mbps Public Uplink
- Remote Management: Reboot / KVM over IP
- Remote Desktop
- Primary IP Addresses: 1 IP Address
- Control Panel Software: Parallels Plesk Panel 11 (Windows)
- Database Software: MySQL
- Anti-Virus & Spyware Protection: McAfee Virus Scan Enterprise
- Monitoring: Host Ping
- Notification: Email and Ticket
- Advanced Monitoring: Monitoring
- Response: Automated Notification
- Hardware & Software Firewalls: Microsoft Windows Firewall
- VPN Management - Private Network: Unlimited SSL
- VPN Users & 1 PPTP VPN
- Vulnerability Assessments & Management: Nessus Vulnerability Assessment & Reporting

4. Project Implementation & Training

A uniform practice of adopting International standard methodology for implementing application software project is followed with standardized & traditional waterfall methods. At each Phase/Stage, a proper approval would be taken before proceeding ahead with the next stage. The quick and positive user feedback at each stage would ensure project development and deployment as per project plan.

Under this part, the major activities are:

- Server setup and its configuration
- Securities implementation
- Developed Application Deployment
- Providing a Team of Technical & Experienced Manpower for Implementation & Configuration of the above-mentioned jobs
- Training – Providing Training on the developed Portal and application's Manual

5. Technical Assistance & Annual Maintenance

This phase will be the last phase of the complete cycle. This phase will cover the maintenance of all Modules like regular content management and/or maintenance of data centre. A team of well-trained experts will be put on for this task so as to run the portal smoothly.

9. Definition, Acronym & Abbreviations

Development Phases	Tools & Technology
Requirement Analysis, Proposal Drafting, SRS writing and Wire framing	MS Office Word MS Office Power Point
Design	Adobe Photoshop, Illustrator, XD
System Development	AngularJS, NodeJS, MySQL
Quality Assurance & Testing	Test Cases & Plans – MS Office Word Testing – Manual Bug Tracking and Reporting Tool

10. Technologies Utilized

Programming languages

Express JS

Express is a mature, flexible, lightweight server framework. It is designed for building single, multi-page, and hybrid web applications. This lightweight framework uses the Pug engine to provide support for templates.

Express is the de-facto framework for Nodejs and is draws heavy inspiration from Sinatra, the popular Ruby framework.

Angular JS

Angular JS is an open-source JavaScript framework. Angular is maintained by Google. The goal of this framework is to introduce MVC(Model View Controller) architecture in the browser-based application that makes the development and testing process easier. The framework helps you create a smarter web app that supports personalization.

AngularJS allows us to use HTML as a template language. Therefore, you can extend HTML's syntax to express the components of your application. Angular features like dependency injection and data binding eliminate plenty of code that you need to write.

Node JS

Node.js allows developers to create web servers and build web applications on it. It's a server-side Javascript execution environment.

Node.js uses a non-blocking and event-driven I/O model. This makes it lightweight and efficient, perfect for data-intensive real-time applications that run across distributed devices.

It allows developers to create data-intensive real-time apps that run across distributed devices. You can run Node.js runtime on Microsoft Windows, OS X, and Linux.

JavaScript:

JavaScript (JS) is an interpreted computer programming language. As part of web browsers, implementations allow client-side scripts to interact with the user, control the browser, communicate asynchronously, and alter the document content that is displayed. It has also become common in server-side programming, game development and the creation of desktop applications.

JavaScript is a prototype-based scripting language with dynamic typing and has first-class functions. Its syntax was influenced by C. JavaScript copies many names and naming conventions from Java, but the two languages are otherwise unrelated and have very different semantics. It is a multi-paradigm language, supporting object-oriented, imperative and functional programming styles.

HTML:

Hyper Text Markup Language (HTML) is the main markup language for creating web pages and other information that can be displayed in a web browser.

The purpose of a web browser is to read HTML documents and compose them into visible or audible web pages. The browser does not display the HTML tags, but uses the tags to interpret the content of the page.

HTML elements form the building blocks of all websites. HTML allows images and objects to be embedded and can be used to create interactive forms. It provides a means to create structured documents by denoting structural semantics for text such as headings, paragraphs, lists, links, quotes and other items. It can embed scripts written in languages such as JavaScript which affect the behavior of HTML web pages.

CSS:

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation semantics (the look and formatting) of a document written in a markup language. It's most common application is to style web pages written in HTML and XHTML, but the language can also be applied to any kind of XML document, including plain XML, SVG and XUL.

CSS is designed primarily to enable the separation of document content (written in HTML or a similar markup language) from document presentation, including elements such as the layout, colors, and fonts. This separation can improve content accessibility, provide more flexibility and control in the specification of presentation characteristics, enable multiple pages to share formatting, and reduce complexity and repetition in the structural content (such as by allowing for table-less web design).

CSS can also allow the same markup page to be presented in different styles for different rendering methods, such as on-screen, in print, by voice (when read out by a speech-based browser or screen reader) and on Braille-based, tactile devices. It can also be used to allow the web page to display differently depending on the screen size or device on which it is being viewed. While the author of a document typically links that document to a CSS file, readers can use a different style sheet, perhaps one on their own computer, to override the one the author has specified.

CSS specifies a priority scheme to determine which style rules apply if more than one rule matches against a particular element. In this so-called cascade, priorities or weights are calculated and assigned to rules, so that the results are predictable.

AJAX:

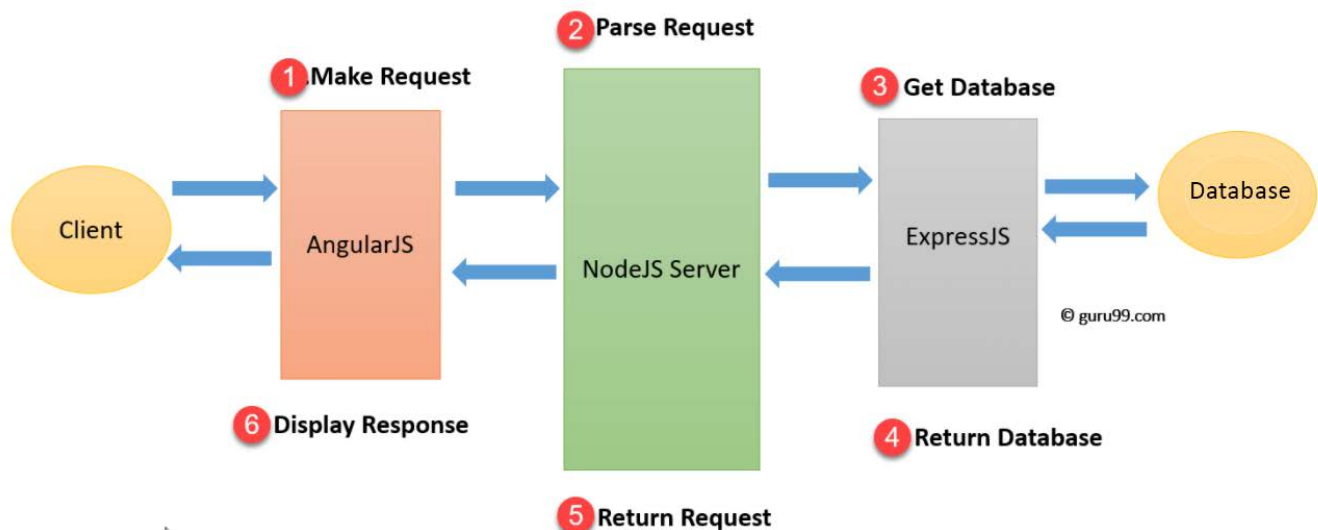
AJAX is an acronym for asynchronous JavaScript and XML is a group of interrelated web development techniques used on the client-side to create asynchronous web applications. With Ajax, web applications can send data to, and retrieve data from, a server asynchronously (in the background) without interfering with the display and behavior of the existing page. Data can be

retrieved using the XMLHttpRequest object. Despite the name, the use of XML is not required (JSON is often used instead), and the requests do not need to be asynchronous.

Ajax is not a single technology, but a group of technologies. HTML and CSS can be used in combination to mark up and style information. The DOM is accessed with JavaScript to dynamically display, and allow the user to interact with, the information presented. JavaScript and the XMLHttpRequest object provide a method for exchanging data asynchronously between browser and server to avoid full page reloads.

Tools & Development Environment: Microsoft SQL Server Management Studio:

This is relational database management system by Microsoft Corporation. All the database related information is stored into the tables which are reference with each other using relational model. It is a software application first launched with the Microsoft SQL Server 2005 that is used for configuring, managing, and administering all components within Microsoft SQL Server. The tool includes both script editors and graphical tools which work with objects and features of the server.



Architecture Diagram

11. Assumptions, Dependencies & Constraints

Assumptions:

- The users have sufficient knowledge of how to operate computers.
- It is assumed that the UPSRLM will provide their full support at all the phases of the software development life cycle.
- It is assumed that the UPSRLM will address all the administrative issues arising from time to time and will resolve the same.

Dependencies:

- The application requires broadband Internet connection.
- As the application will be hosted on a central hosting server with database so accessing the application will be heavily dependent on availability of the hosting server.

Constraints:

- The users will be able to access the UPSRLM from any computer that has an Internet connection to access database from the hosted database server.
- The users must have their correct usernames and passwords to use the add-on features.
- To successfully implement the solution at each location, it is expected from the UPSRLM that some concrete steps like following:
 - Issue office order to all the concerned employees to provide their full co-operation
 - UPSRLM to implement the solution at the respective location(s)
 - Issue office order to all the concerned employees to stop manually generated output and accept/use only software generated outputs in the department so that using application can come in the routine practice.

12. System Architecture

System Architecture

This System is developed in 3-Tier Architecture which consists of three layers.

- a) User Interface (UI) Layer
- b) Business Logic Layer
- c) Database Layer

a) User Interface (UI) Layer: This is the top-most layer of the application where the user performs their activity. Let's take the example of any application where the user needs to fill up a form. This form is nothing but the Presentation Layer. In web applications the web form belongs to the Presentation Layer. Basically the user's input validation and rule processing is done in this layer.

For current application, there is a .UI Layer, which represents the User Interface (UI) Layer.

b) Business Logic Layer: Under this layer, we centralize these business rules into a Business Logic Layer (BLL) that serves as an intermediary for data exchange between the presentation layer and the Data Access Layer (DAL).

In this application, the BLL is implemented as a separate Class Library project; and implemented the BLL as a series of classes in our App_Code folder in order to simplify the project structure. As the name suggests, most of the business operations are performed here.

It keeps all of your business logic localized, and in one place. Future changes will be much easier as a result. It allows you to more easily unit test your business logic. It's very difficult to write automated unit tests against business logic.

For current application, there is a .BLL Layer, which represents the Business Logic Layer.

c) Data Access Layer: The Data Access Layer (DAL) cleanly separates the data access logic from the presentation logic. However, while the DAL cleanly separates the data access details from the presentation layer, it does not enforce any business rules that may apply. For example, for our application we may want to disallow the UserID fields of the User Master table to be modified when the discontinued field is set to 1. Another common scenario is authorization – perhaps only users in a particular role can delete records or can modify the financial value.

It contains methods that help the business layer to connect with the database and perform CRUD operations. Generally all database related code and stuff belongs to the Data Access Layer. Sometimes people use a platform-independent Data Access Layer to fetch data from various database vendors.

Database Access Layer (DAO) builds the query based on received parameters from the Business Logic Layer and passes it the dbConnection class for execution. And simple return results from the dbConnection class to Business Logic Layer. For current application, there is a .DAL Layer, which represents the Data Access Layer.

13. Non Functional Requirement

Software Quality Attribute

The system will load faster and will be easy to use even for a new user. There are several factors that will be considered while developing the application like following:

- Fast loading
- Easy to use
- User friendly
- Smartly designed User Interface (UI)
- Proper checks and validations
- Optimized queries for faster database response
- Designed on Object Oriented Technology (OOP) Technology

Performance Requirements

The application will be platform independent at the client side, and should allow any operating system from client side to connect to the application over intranet or internet.

- Capacity: - The proposed system will address a large number of users on the portal (System will manage around 500 Concurrent User's load at a time).
- Response Time: - The system will be fast enough to respond to the user's request
- Reliability: - The system will be reliable enough so as to serve all type of users coming on the portal.

Availability

The Server will be monitored round the clock by the Engineers. The Portal shall be available for users 24x7 with 99% uptime guarantee. Any planned updation at the Server side which would stop the accessibility of the Portal to the user (for a small period of time) will be notified in advance to the registered members of the Portal.

Reliability

- A Stable RDBMS system shall be used so that Data Integrity can be maintained
- A sample Backup & Restoration utility shall be a part of the application.
- Complete backup shall be maintained at more than one place.
- To get the desired and intended results under the stated environment, a continuous power supply shall be provided.
- The backup will be taken on a backup server.
- If the system fails then the data will be restored from the periodic backup.
- To ensure that all the services work properly, the portal will be consciously monitored for the same.
- The Internet connectivity is the most important factor, a good bandwidth will be required both at client and server end.

Business Rules

Nothing is above customer satisfaction. So the rules need to be kept flexible to meet user needs and preferences at different times. The application will be scalable by giving the provisions for future expansions, if required.

Security

- The proposed software will take care of four layers of security arrangement viz
- Operating System, Database, Application Level and Web Security (Firewall) level.
- Highly secured firewall shall be in place for security of application/portal from virus or other kind of attacks.
- At Administrative Level, the administrator or the authorized user will be allowed to login into the system
- The SQL server will be configured to allow only authorized users at database level.
- No unauthorized access will be permitted at the application level.
- Any changes to the data will only be permitted through the application as no users will be allowed to change the data directly into the database
- Only Database Administrators will be allowed to access the database directly.

- The important information on the portal can only be accessed using the login and password. The access to the modules/menus will depend on the privileges provided to the users.
- Physical security shall be maintained, so that no unauthorized user can turn off or harm the server in any case.

Maintainability

Standardized software and hardware platforms will be used. The e-learning web portal too follows the software development standard.

- The Code / Programs and routines must be well documented and self-explanatory for any programmer to understand. Variable names must indicate their functionality; logical constructs must be commented etc.
- Once the Design stage of software development is over. Detailed documentation will be available for easy comprehension of the software system.
- The Software will try to achieve a balance of structured and object oriented approach to maximize performance. Since the development tool is not fully object oriented, the common and reusable functionality of the software can be separated and maintained in modules to avoid duplication of code and functionality as well. For e.g. Login function, functions dealing with codes' population with code category as a parameter, using stored procedures for common tasks, functions used for common calculations and conversions.
- Optimum distribution of client based processing and the server based processing so as to minimize network traffic, by utilize database-coding facilities like stored procedures and triggers.

Scalability

The architecture of the system will be scalable enough so as to accommodate the future need also.

Portability

The system will be a web based application, so only the OS and RDBMS have to be deployed. The application program files have to be copied and IIS web services have to be started. All the system meeting the above hardware requirements will be compatible.

Note: Internet connection with an updated Internet Browser is a mandatory requirement.

Legal Copyright & Other Notices

Any unauthorized use of the application is prohibited under the cyber laws.

14. User Requirement

The users of the system are management, the public users and the departmental users, who will maintain the entire system. The management and the departmental users are assumed to have basic knowledge of computers.

The administrators of the system to have more knowledge of the internals of the system and is able to rectify small problems that may arise from time to time. The proper, easy to use user interfaces, user manual must be sufficient to educate the users on how to use the system without any problems.

15. License Requirement

UPSRLM does not use any additional licensed software other than Operating System and MySQL database to run. The application will be hosted to a centralized hosting server with following software requirements:

- Express JS
- Angular JS
- Node JS
- MySQL

16. Interface Requirement

User Interfaces

The Department will provide easy to use the system as well as user friendly interfaces so that they can use the application easily and efficiently. The entire application will be protected by user authentication so that no unauthorized user can access the system. The user interfaces will be designed in such a way so that only relevant information will be displayed to the user at a time.

Hardware Interfaces

Server Specifications are as following:

- Operating System: Windows Server 2008 R2 Web Edition (64bit) Disk Controller: RAID
- Hard Drive: 500 GB SA-SCSI 15K RPM
- Public Bandwidth: 5000 GB Bandwidth
- Uplink Port Speeds: 100 Mbps Public & Private Network
- Network Port: 100 Mbps Public Uplink
- Remote Management: Reboot / KVM over IP
- Primary IP Addresses: 1 IP Address
- Control Panel Software: Parallels Plesk Panel 11 (Windows)
- Database Software: Microsoft SQL Server 2008 Enterprise R2
- Anti-Virus & Spyware Protection: McAfee Virus Scan Enterprise
- Monitoring: Host Ping
- Notification: Email and Ticket
- Advanced Monitoring: Monitoring
- Response: Automated Notification
- Hardware & Software Firewalls: Microsoft Windows Firewall
- VPN Management - Private Network: Unlimited SSL
- VPN Users & 1 PPTP VPN
- Vulnerability Assessments & Management: Nessus Vulnerability Assessment & Reporting

Software Interfaces

As the application will be a standalone system so this will not require any additional software to run. The system is not meant to interact with any other software.

17. Design Interface

1. Login Screen

Prerna Budget Management System-PBMS
प्रेरणा बजट प्रबंधन प्रणाली

Welcome to PRERNA Budget Management System
प्रेरणा बजट प्रबंधन प्रणाली

PRERNA Budget Management System (PBMS) is a web-based online software application. PBMS is being rolled out with the objective of tracking the funds released under all Plan schemes under the State Rural Livelihood Mission, and real-time reporting of expenditure at all levels of Programme/Scheme implementation.

PBMS has established an interface with the Public Financial Management System (PFMS) developed & implemented by the Controller General of Accounts (CGA), Department of Expenditure, Ministry of Finance, Government of India.

© 2021-22 | All Right Reserved | Version 1.0.1 | Last Update 15 Mar 2022

Implementing Agency: **ICICI Bank** Development Partner: **TROOLOGY TECHNOLOGIES**

Login
Login to your PBMS system portal

User Name

Password

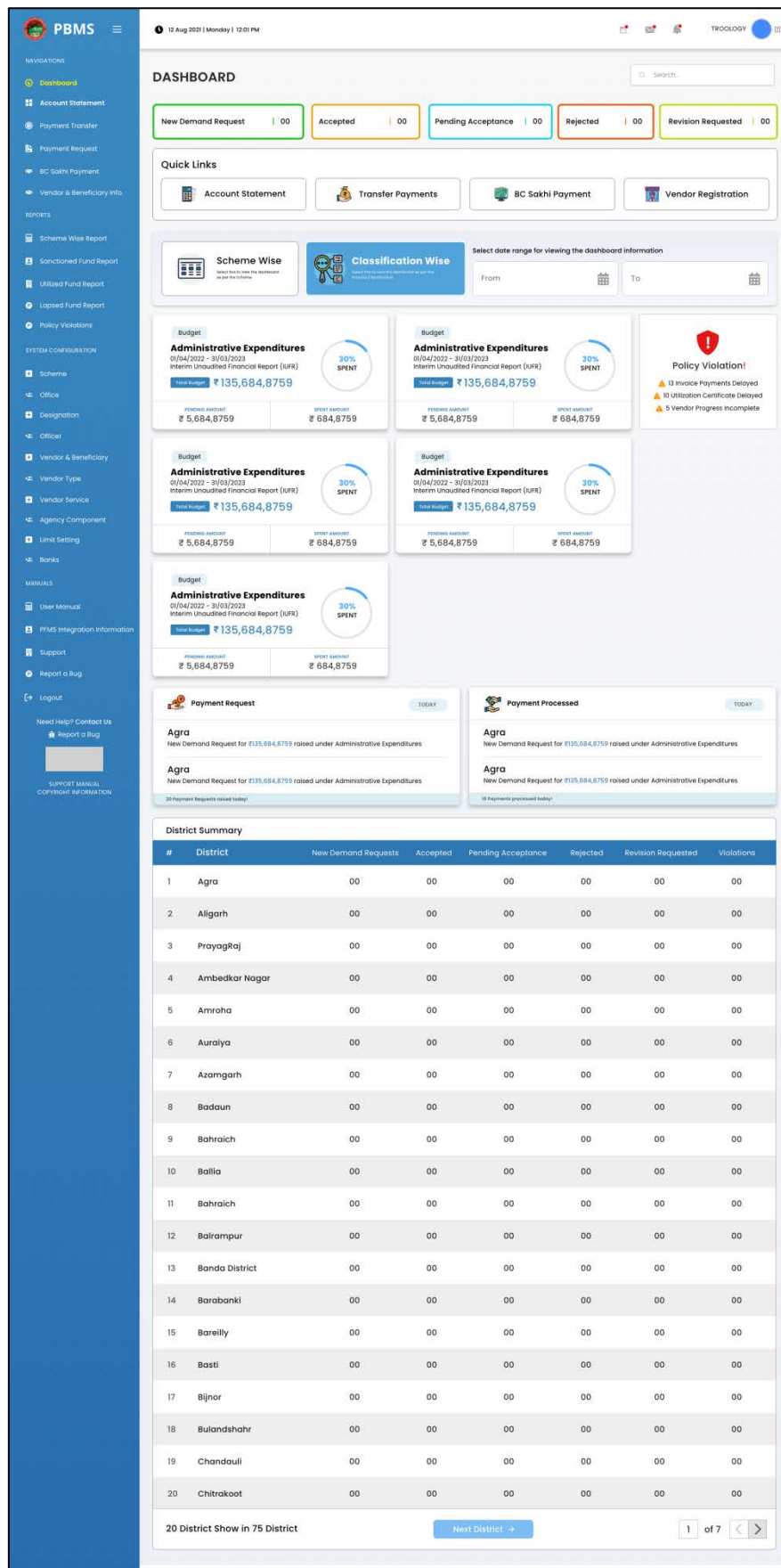
☐ I'm not a robot

LOGIN

☐ Remember me [Forgot Password?](#)


Protected by reCAPTCHA Google
Privacy Policy & Terms of Service apply.

2. Dashboard



3. Master Setup

a. Office Setup

 PBMS

NAVIGATIONS

Dashboard

Account Statement

Payment Transfer

Payment Request

BC Sakhi Payment

Vendor & Beneficiary Info.

REPORTS

Scheme Wise Report

Sanctioned Fund Report

Utilized Fund Report

Lapsed Fund Report

Policy Violations

SYSTEM CONFIGURATION

Scheme

Office

Designation

Officer

12 Aug 2021 | Monday | 12:01 PM

TROOLOGY

Dashboard - Quote - Lead View List - Create Demand -

Cancel Save and New Save

Create Office

Office Information

Office Code

Office Type

Office Name

Contact Number

Office Description

Address Line 1

Enter your Complete Address Line 1

Address Line 2

Enter your Complete Address Line 2

Country

Select Country

State

Select State

City

Select City

Zip Code

Enter ZipCode

Google Location

Enter your Complete Address

Latitude

Longitude

Nodal Officer Name

Nodal Email

Nodal Mobile

+91

Highest Rank Officer

Officer Designation

Select Designation ID

Officer Email

Officer Mobile

+91

GST Number

GST Document

Upload GST Doc

Browse

PAN Number

PAN Document


Upload Pan Doc

Browse

Name of DDO

Sanctioning Authority

b. Officer / User Setup

**PBMS**

NAVIGATIONS

Dashboard

Account Statement

Payment Transfer

Payment Request

BC Sakhi Payment

Vendor & Beneficiary Info.

REPORTS

Scheme Wise Report

Sanctioned Fund Report

Utilized Fund Report

Lapsed Fund Report

Policy Violations

SYSTEM CONFIGURATION




Scheme

Office

Designation

Officer

12 Aug 2021 | Monday | 12:01 PM



TROOLOGY

Dashboard - Quote - Lead View List - **Create Demand -**

Cancel Save and New Save

Officer Information

Officer Code

Officer Name

Enter Full Name

Date of Birth

Gender

Select Gender

Father / Husband

Aadhaar Number

Enter Aadhaar Number

Pan Number

Mobile Number

Email ID

+91

Designation

Address Line 1

Enter your Complete Address Line 1

Address Line 2

Enter your Complete Address Line 2

Address Line 3

Enter your Complete Address Line 3

Country

Select Country

State

Select State


City

Select City

Zip Code

Enter ZipCode

c. Designation Setup

**PBMS**

NAVIGATIONS

Dashboard

Account Statement

Payment Transfer

Payment Request

BC Sakhi Payment

Vendor & Beneficiary Info.

REPORTS

Scheme Wise Report

Sanctioned Fund Report

Utilized Fund Report

Lapsed Fund Report

Policy Violations

SYSTEM CONFIGURATION

Scheme

Office

Designation

Officer

12 Aug 2021 | Monday | 12:01 PM

TROOLOGY

Dashboard - Quote - Lead View List - **Create Demand -**

Cancel

Save and New

Save

Create Designation

Designation Information

Designation Code

Designation Name

Reporting to

Cancel

Save and New

Save

35 | Page

d. Vendor Setup

PBMS

12 Aug 2021 | Monday | 12:01 PM

TROOLOGY

Dashboard - Quote - Lead View List - **Create Demand** -

Cancel Save and New Save

Create Vendor

Vendor Information

Vendor PFMS Code

Vendor Type

Vendor Service Category

Vendor Service Sub Category

Vendor Name

Name of vendor's Father/husband

Date of Birth

PAN Number

GST Number

GST Document

Aadhar Number

TAN Number

TIN Number

Service Tax Number

Address Line 1

Address Line 2

Address Line 3

Country

State

City

Zip Code

District

Mobile Number

Phone Number

Email ID


BANK Name

Branch IFSC Code

Bank Account No.

Cancel Save and New Save

e. Vendor Service Setup

**PBMS**

12 Aug 2021 | Monday | 12:01 PM

TROOLOGY

NAVIGATIONS

Dashboard

Account Statement

Payment Transfer

Payment Request

BC Sakhi Payment

Vendor & Beneficiary Info.

REPORTS

Scheme Wise Report

Sanctioned Fund Report

Utilized Fund Report

Lapsed Fund Report

Policy Violations

SYSTEM CONFIGURATION

Scheme

Office

Designation

Officer

Dashboard - Quote - Lead View List - **Create Demand -**

Cancel Save and New Save

Create Vendor Service

Vendor Type Master Information


Vendor Service Category Code

Vendor Service Category Name

Vendor Service Category Description

Cancel Save and New Save

f. Vendor Type Setup

**PBMS**

12 Aug 2021 | Monday | 12:01 PM

TROOLOGY

NAVIGATIONS

Dashboard

Account Statement

Payment Transfer

Payment Request

BC Sakhi Payment

Vendor & Beneficiary Info.

REPORTS

Scheme Wise Report

Sanctioned Fund Report

Utilized Fund Report

Lapsed Fund Report

Policy Violations

SYSTEM CONFIGURATION

Scheme

Office

Designation

Officer

Dashboard - Quote - Lead View List - **Create Demand -**

Cancel Save and New Save

Create Vendor Type

Vendor Type Information


Vendor Type Code

Vendor Type

Vendor Description

Cancel Save and New Save

g. Bank Setup

**PBMS**

12 Aug 2021 | Monday | 12:01 PM

TROOLOGY

NAVIGATIONS

Dashboard

Account Statement

Payment Transfer

Payment Request

BC Sakhi Payment

Vendor & Beneficiary Info.

REPORTS

Scheme Wise Report

Sanctioned Fund Report

Utilized Fund Report

Lapsed Fund Report

Policy Violations

SYSTEM CONFIGURATION

Scheme

Office

Designation

Officer

Dashboard - Quote - Lead View List - **Create Demand -**

Create Bank


Cancel Save and New Save

Vendor Type Information

Bank Name

Cancel Save and New Save

h. Limit Setting for Scheme

**PBMS**

12 Aug 2021 | Monday | 12:01 PM

TROOLOGY

NAVIGATIONS

Dashboard

Account Statement

Payment Transfer

Payment Request

BC Sakhi Payment

Vendor & Beneficiary Info.

REPORTS

Scheme Wise Report

Sanctioned Fund Report

Utilized Fund Report

Lapsed Fund Report

Policy Violations

SYSTEM CONFIGURATION

Scheme

Office

Designation

Officer

Dashboard - Quote - Lead View List - **Create Demand -**

Set Scheme Limit

Cancel Save and New Save

Set Scheme Limit Information

Scheme ID

Scheme Sub Component ID

Scheme Component ID

District

Limit Allocation Amount

Central Share

Component Name

State Share

Component Code

Cancel Save and New Save

i. Demand Request Format

NAVIGATIONS

Dashboard

Account Statement

Payment Transfer

Payment Request

BC Sakhi Payment

Vendor & Beneficiary Info.

REPORTS

Scheme Wise Report

Sanctioned Fund Report

Utilized Fund Report

Lapsed Fund Report

Policy Violations

SYSTEM CONFIGURATION

Scheme

Office

Designation

Officer

12 Aug 2021 | Monday | 12:01 PM

TROOLOGY

Dashboard - Quote - Lead View List - Create Demand -

Cancel

Save and New

Save

Payment Demand Request

Create New Payment Demand Request

Please fill in the information below. The field labels marked with * are required input fields.

Date

Reference No.

User

Please select the scheme under which payment demand request is to be created.

Scheme ID

Scheme Component ID

Scheme Sub Component ID

Amount /Limit Authorised

Expenditure

Balance SNA Amount

Add New Vendor

Demand Requests

#	Vendor Name	Vendor Code	Bill No	Bill Date	Bill Amount	Sanctioned Cost	Authorization	Subtotal		
							E-Payment	Cheque Payment		
1										
1										
1										
Total										

Attach

Attach Document

Remark

Scheme	0000	Limit Authorised	0000	Expenditure	0000	Balance	0000
Vendor			0000	Total			0000

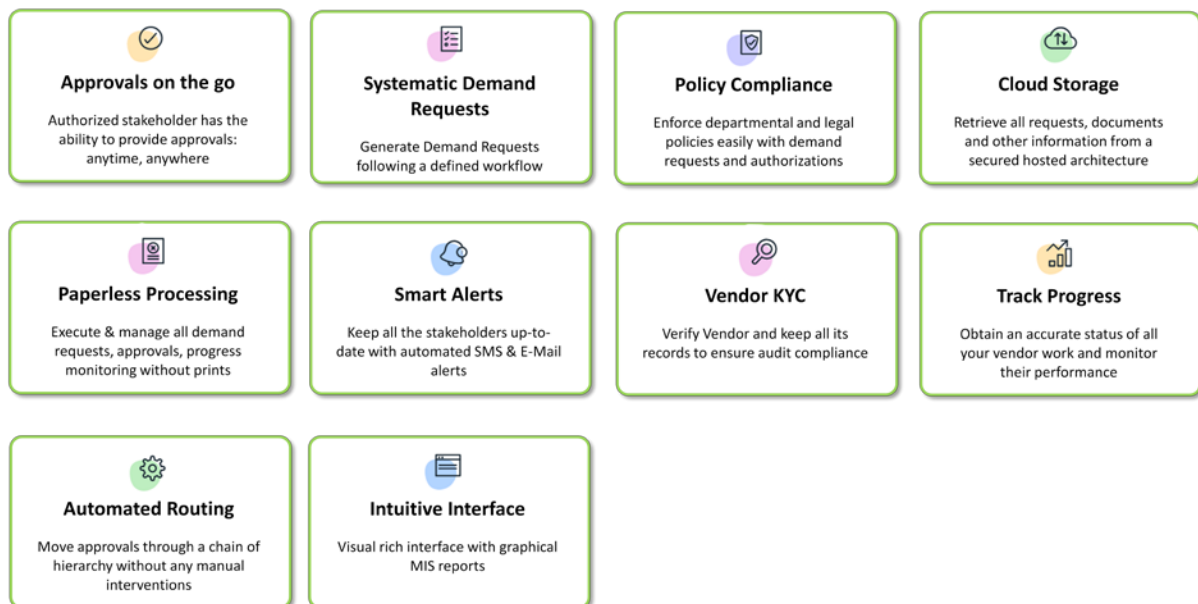
Cancel

Save and New

Save

39 | Page

18. Impact of the System Implementation



19. Conclusion

TROOLOGY has carefully analyzed the overall process and will put its best efforts to streamline the entire activity more efficiently by simplifying the data entry process and other user centric activities.

TROOLOGY would like to thanks again to UPSRLM for continuously providing us the required support during our requirement gathering phase which helped us to complete our entire study of the followed system. We hereby give this document Software Requirement Specification which details the design & development of the application.

With our team of experienced professionals, we assure you the best of our technology and consulting services and look forward for a strong mutual relation.

20. Glossary

Active Article	The document that is tracked by the system; it is a narrative that is planned to be posted to the public website.
Author	Person submitting an article to be reviewed. In case of multiple authors, this term refers to the <i>principal author</i> , with whom all communication is made.
Database	Collection of all the information monitored by this system.
Editor	Person who receives articles, sends articles for review, and makes final judgments for publications.
Field	A cell within a form.
Historical Society Database	The existing membership database (also HS database).
Member	A member of the Historical Society listed in the HS database.
Reader	Anyone visiting the site to read articles.
Review	A written recommendation about the appropriateness of an article for publication; may include suggestions for improvement.
Reviewer	A person that examines an article and has the ability to recommend approval of the article for publication or to request that changes be made in the article.
Software Requirements Specification	A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. For example, this document.
Stakeholder	Any person with an interest in the project who is not a developer.
User	Reviewer or Author.

List of acronyms:

1.	API	Application Programming Interface
2.	CBM	Central Beneficiary Master
3.	CSS	Centrally Sponsored Scheme
4.	DSC	Digital Signature Certificate
5.	ePA	Electronic Payment Advice
6.	FTO	Fund Transfer Order
7.	IA/PIA	Implementing Agency/Programme Implementing Agency
8.	NPCI	National Payment Corporation of India
9.	PFMS	Public Financial Management System
10.	PPA	Print Payment Advice
11.	REAT	Receipt Expenditure Advance Transfer
12.	SFTP	Secured File Transfer Protocol
13.	SIS	Single Nodal Agency's IT System
14.	SLS	State Linked Scheme
15.	SNA	Single Nodal Agency
16.	SPCU	State Project Cell user
17.	SPMU	State Project Management user
18.	SSM	State Scheme Manager
19.	UI	User Interface
20.	ZBSA	Zero Balance Subsidiary Accounts

21. Remarks & Feedback

[illegible]

Name	Date	Signature

PRERNA Budget Monitoring System

Design, Development, Implementation & Maintenance of the
Financial Budget Monitoring System integrated with PFMS

Implementing Agency



Development Agency

TROOLOGY

TROOLOGY

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