

Government of Karnataka Finance Department

Project: KHAJANE II

System Requirements Specifications for Web Portal

Version 1.0 February 2014



Government Industry Solution Unit (ISU)

Author:			
Author.			
Date of Creation:	27 th Dec 2013		
This document is accepted with the	following conditions:		
 The "System Requirement Specifications" (SRS) is a blue print document providing detailed presentation of requirements for delivery of the business functionality, as specified in the RFP. 			
2) Based on the SRS, User Acce	eptance Test (UAT) will be conducted.		
	for Khajane-II application shall aim to fulfill the tionality, as detailed in the SRS document.		
4) Parts of SRS may be subjected to corrections or additions, as found necessary, to bring-in correctness and completeness within the context of Khajane-II, due to the changes and requirements of SRS of other modules (Phase-I and Phase-II) and during System Design, or UAT.			
The SRS shall be amenable t the external stakeholders.	5) The SRS shall be amenable to incorporation of requirements of integration with the external stakeholders.		
6) The SRS shall also be amenable to such changes and feedbacks from the department pertaining to functional specifications, which will be incorporated by the SI without any additional costs to the department, before go-live and during the six months post-go-live period, as per the Khajane-II RFP Vol II Section 3.6.6.6.			
7) Finally, the SRS is subject to II).	the acceptance of Technical Committee (Khajane-		
	Project Director, Khajane-II & Director of Treasuries, Bangalore.		
Client Approval Stamp:			
(Signature, Name & Designation)			
Client Approval Date:			

DOCUMENT RELEASE NOTE

Document Details: SRS Version: 1.0

Name	Version No.	Description
System Requirements Specifications	Version 1.0	SRS document for KHAJANE II (for Web Portal), Finance Department, Govt. of Karnataka

Purpose of Release:

This version incorporates the changes and additions suggested by the stakeholders from Government of Karnataka (GoK).

Revision Details:

Reference No	Action taken (Add / Del / Change / Replace)	Preceding Page No.	New Page No.	Revision Description

This document and any revised pages are subject to document control. Please keep them up-to-date using the release notices from the distributor of the document.

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Review Meetings conducted by PMU team:

Sr. No.	Date	Designation / Title, Department	Relevant Sections/Processes
1.		-	

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CHAPTER 1. INTRODUCTION TO THIS DOCUMENT

1.1 Purpose

The purpose of this document is to provide the System Requirement specifications (SRS) for the Web Portal functionality of Khajane-II system, for Government of Karnataka.

This SRS document is intended to specify the web portal services based on the types of users, different layouts and personalisation features available at the UI level. This document expands in details over the content and layout for basic pages of the portal. The portal content will span across departments, different services offered, citizen charter, dashboards, search engines, employees corner and citizen space including forum and grievance.

A web portal acts as a single platform to showcase specific department activities as well as citizen centric services. Web portals allow partners, employees and customers to choose their experience, with personalised applications based on role, context, actions, locations, preferences and team collaboration needs. Web portal brings together information from diverse sources in a uniform way. Each information source gets its dedicated area on the page for displaying information (called a portlet).

In Khajane II, separate web portals are required for internet and intranet users.

The internet application focuses on the services available for citizens, pensioners, external agency users and some services for the department users. The intranet application is completely oriented to department users, providing all the needed services.

This document would enable development of the web portals for Khajane II. This document also forms the basis & complete-scope for User Acceptance Test to be carried out for Khajane-II system, to test completeness of the portal functionality under Khajane-II solution.

1.2 Intended Audience

This document is intended for the Department of Treasury (GoK) stakeholders, endusers and the Development team of System Integrator (M/s Tata Consultancy Services Ltd.). This document will also help the following audiences:

• Finance Department (GoK) users must understand and approve the requirements of the Web Portal application, as adequate for meeting its stated business needs.

- Department of Treasuries (GoK) users must verify whether the document meets the stated business objectives and then approve the Requirements.
- System Integrator (SI) team must design and develop the application functionality to address the requirements detailed in the document.
- The Acceptance Testing team must develop the test cases, test data and test the application.
- The Maintenance team must understand all the aspects of the application, and maintain it

1.3 Legends

A. Legends for Process Flow Diagrams

The following legends are used in the process flow/ Use Case/Context diagram:

Table 1: Process Flow Legends

Legend Representation	Description
	Terminators that show the start and end points
	in a process.
	Shows a process step
	A Predefined process symbol is a marker for
	another process step or series of process flow
	steps that are formally defined elsewhere.
	Shows a manual process step
	Shows an alternate Process
	Shows data input and output
	Shows manual input
	The Document flowchart symbol is for a process
	step that produces a document.
	The Document flowchart symbol is for a process
	step that produces multiple documents.
	Shows a question or branch in the process flow.
	Typically, a Decision flowchart shape is used
	when there are two options
	Shows stored data
	Shows delay
	Shows notes attached to the process

Legend Representation	Description
	Flow line connectors show the direction in which the process flows.
	Shows an outside Page connector
	Shows an inside page connector
\bigcirc	Indicates or
	Shows display
	Shows entity relationship
	Data storage

Table 2: Use Case and Context Diagram Legends

Legend Representation	Description
	Process
< <include>></include>	Process includes another sub process/sub activity to complete the primary activity/process
< <extends>></extends>	Extends

2	Actor
	Shows actor to process mapping.
▶	Notification from one process/sub process to other process/sub process
Conte	ext Diagram Legends
	Modules Internal to Khajane-II
	Modules/Agencies external to Khajane-II
Process Name	Processes within the module
←	Direction of data flow

B. Legends for Attributes Tables:

Table 3: Legends for Attribute Tables

Sr. No	Value Property	Description
1	User Entered	Data to be entered by the user
2	Select from Lookup	Data selection is from a set of predefined values
3	System Derived	Data generated from the system and data populated by the system and referred from the database
4	Hyperlink, Link	Action confirmation by the user
5	Input From External Source	Data Received from external source or entity

Sr. No	Value Property	Description
6	System Derived Back	The system derived details used as the back end
	End Activity	activity to perform
7	Check box	Optional field for the user to select
8	Radio button	A multiple choice option button, where user has to
		select only one among the multiple choices
		provided.

1.4 Chapter Description

This document is organised in the chapters as described in the following table:

Table 4: Chapter Description Overview

Table 4: Chapter Description Overview		
Chapter	Name of the Chapter	Description
1	Introduction	This chapter covers the purpose of the document
	(Refer Section 1)	along with intended audience of this document.
		Legends which will be used in this document are
		also covered in this chapter.
2	Introduction to Web	Covers the brief description of the Khajane-II system
	Portal	and web portal. This chapter covers the following
	(Refer Section 2)	details
		System Overview
		Web Portal Overview
		Portal – Technical Specifications
		Portal Users
		Portal Services
		Portal Layout
		Web Content Management
3	Portal Services	Covers the various portal services provided over the
	(Refer Section 3)	internet and intranet. This chapter covers the
		following details
		Internet Application Services
		Intranet Application Services
4	Portal Layout	Covers the layout of the internet and intranet
	(Refer Section 4)	application based on the type of user
		Intranet Application Layout
		Internet Application Layout
5	Portal – Content	Covers the content management in web portal in
	Management	detail.
	(Refer Section 5)	

CHAPTER 2. Introduction to Web Portal

This section provides an overview of the Khajane II system and specifically the requirements of the web portal functionality.

2.1 System Overview

The Finance Department (Government of Karnataka) has embarked upon the 'Project Khajane-II' initiative that comes under the ambit of the Department of Treasuries, with a vision to integrate and automate all financial operations of the Government of Karnataka. The Khajane-II solution is envisaged as the next generation integrated treasury automation initiative towards financial management, to provide transparency and control in transaction operations, eliminate discrepancy and reduce turn-around time in reconciliations, provide track-ability, traceability and strategic reporting capabilities to the decision makers. Important checks and control mechanisms in Khajane-II system would be to bring-in secured access at all user-touch-points, through biometric and digital signature authentication of users of any role.

One of the significant aspects of Khajane-II is to bring all the State Government agency system in an integrated environment, where exchange of event-based information would not depend on manual interactions; instead, direct system-to-system integration between Khajane-II and other departments' systems would enable real-time exchange, transfer and reference ability of information across various government departments' systems.

Khajane-II will integrate with other financial transactions of the external stakeholders, namely Reserve Bank of India (RBI), Accountant General (AG) Office, Agency Banks, Post offices, Human Resource Management System (HRMS), Directorate of Social Security Pension (DSSP), and other state government departments of GoK, and will provide the capability of Daily Reconciliation of accounts to the Finance Department.

The initiative would bring about enhancements in existing processes; introduce business-process reengineering to aid the finance administrators in managing Public Finances of the State effectively and efficiently.

Khajane-II system is proposed to extend its reach to the common citizen of the Karnataka State towards easing and streamlining processes for tax-payments.

Tata Consultancy Services (TCS) has been entrusted to develop and implement the Khajane-II solution, which eventually replaces the existing "Khajane" application of the Dept. of Treasuries that was commissioned in the year 2004.



Figure 1: Khajane-II Overview

Figure 1 depicts the logical grouping of Khajane-II modules and this SRS document explains the web portal application in detail.

2.2 Web Portal Overview

A web portal is a web based interface that provides information from diverse sources and offers different services by creating a single point of access to information and a library of services. Portlets are pluggable user interface software components that are managed and displayed in a web portal. Each portlet is designed with dedicated information or service in a particular section of the portal. A portal page is displayed as a collection of non-overlapping portlet windows.

Khajane II has separate portals over the internet and intranet. The internet portal acts as a web interface providing various department services and citizen centric services. Services of different modules are classified based on users and made available in the portal based on authentication and authorization. The intranet portal brings in the

entire application services for the department users acting as a single platform for all the services.

Khajane II portal has the following features:

- Personalised interface for various stakeholders including citizens, pensioners, employees and department users.
- Unicode compliant for bilingual support of English and Kannada. Users can view the data and can enter the data in both the language.
- Robust role based access controls for access of appropriate information and/or applications/utilities (such as Cyber Treasury, Grievance Tracking Systems, Discussion Forums, and IFMS applications)
- Efficient self-registration for citizens and user profile management enabling users to manage their personal details and password settings.
- Support for integration with various third parties, and the legacy system through web services or file exchange through FTP/Secure FTP, data interfacing, and website linking/redirecting.
- Comprehensive analytics module to track portal/community traffic, searched keywords, system response time, document downloads, user turnover, visit duration and so on. Through this usage analysis of the portal can be obtained and system can be improved accordingly.

2.3 Portal – Technical Specifications

Khajane II portal, a platform for departmental and citizen-centric services is developed using IBM Websphere Portal. Khajane II portal will act as an enterprise portal solution with complete services to deliver single point of personalised interaction with:

- Application
- Content
- Business processes
- People

IBM Websphere Portal consists of middleware applications (called portlets), mashups, and development tools for building and managing secure business-to-business (B2B), business-to-consumer (B2C) and business-to-employee (B2E) portals. IBM Websphere has enterprise portal capabilities in the following:

- Consolidation of applications and content into role-based applications
- Search across active database, archived database and repository of scanned documents
- Personalization at the UI level

IBM Websphere supports the development of portlets for displaying content. Portlets are elements of portal applications, usually depicted as a window or a small box in the web page. Portlets provide specific service or information, for example calendar or news feed.

Portlets specifications are as follows:

- Form the building blocks of a web portal
- Have individual sets of control for affecting their appearance or behaviour
- May be added, removed or moved on a portal page
- Supports both Portlet standards, which are:
 - > JSR 168
 - > JSR 286 APIs

2.4 Portal Users

Khajane II portal users can be broadly classified into two categories:

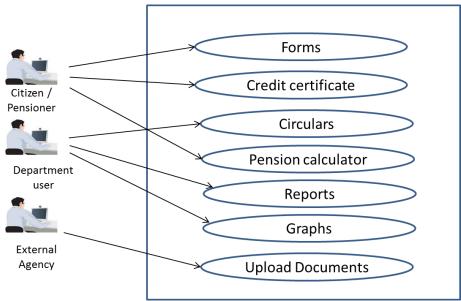
- 1) **Internet users**: Users who access the portal for certain services over the internet fall under this category. These include:
 - Citizens
 - Pensioners
 - Department users: These include DDO /CCO/CO, HoD, DoT, Tahsildar, etc
 - External Agency users: These include CFC, Agency banks, Accountant General, etc

The process of user creation for all the above specified users is explained in detail in Master Data Management SRS (Refer section 3.4)

- 2) **Intranet users**: Users who access the portal via intranet (KSWAN) fall under this category. These include:
 - Treasury users
 - Finance Department users
 - DDO/CCO/CO

The process of user creation for all the above specified users is explained in **Organogram SRS** (Refer section 3.4)

A pictorial presentation of services based on users is shown as follows:



CHAPTER 3. PORTAL SERVICES

Khajane II portal has different sets of services on internet and intranet. Details of these services are given below.

3.1 Internet Application

Khajane II portal provides services on the internet based on different categories of users. They are broadly classified into the following:

- **Citizen Services**: Services available for citizens on the portal are referred to as citizen services. These include challan generation, download forms, and so on.
- **Pension Services**: Services related to pension are classified as pension services in the portal. These include Pension calculator, view PPO details, and so on.
- **Department Services**: Services specific to departmental users are classified and made available under department users in the portal. These include fund releases, graphical representation of T-bill investments, loans payable by Gok, bill status, and so on.
- **Treasury Services**: Services specific to treasury services fall under this category. These include fund releases, reports, and so on.
- External Stakeholders Services: Services specific to external agency users fall under this category. These include reports about supplementary estimates, TP/GP link documents, and so on.
- Services from various functional modules are classified under any one of the above specified categories. Each of these services leads to a page in the portal with sub divisions for the functional modules. Services from the modules are briefed in the following sub-sections:

3.1.1 Bill Services

Bill Module services on the portal cover the following:

- Bill Status report
- View / Download KTC / KFC documents
- Display contact details of the Treasuries
- Bill statistics report
- Transaction report

These services are classified under one of the services listed in section 2.5 based on the type of user groups who are intended to use them. Based on the user category, services

are made available in the Home page, Department users page, or Treasury users page in the portal. The mapping between the services and the user groups are given in the following table.

Table 5: Classification of Bill Services based on user type

SL No	Name of the Service	Target User Group
1	Bill Status report	Department users
2	View / Download KTC / KFC documents	All users
3	Display Contact details of Treasuries	All users
4	Bill Statistics report	Department users (DDO)
5	Transaction report	Treasury users (DoT)

A brief explanation of the bill module services are follows:

- **Bill Status Report:** This service is available for the following department users:
 - > DDO
 - ➢ DoT
 - ➢ HoD
 - Admin Department
 - **≻** FD
- Bill Status report will help the users to track the bills submitted to Treasuries.
 Admin departments, CO, CCOs and DDOs can track the status based on the
 access control defined in the system. As the service is defined for department
 users, this is made available in the Department users page. This facility is
 provided in the portal under Department users-> Bill module-> Bill Status
 report.
- View / Download KTC / KFC Documents: This is a common functionality across
 all categories of users. This is made available in the Home Page -> Acts & Rules
 section. These documents govern the functioning of Khajane II system. They
 help department users in carrying out the day to day operations and help citizens
 understand the financial implications.
- **Display Contact Details of Treasuries:** Contact details of the Treasury will help the decision makers and the citizens to contact the Treasury in order to obtain the required details. It is available under **Contact Us** where information of all the treasuries is available.
- Bill Statistics Report: This report will provide a snapshot of the bill statistics based on the access control defined in the system. This is available in the portal under Department Users -> Bill module -> Reports -> Bill Statistics Report
- Transaction Report: This report will provide the snapshot of the bill statistics based on the access control defined in the system. It is available in the portal under Treasury users-> Bill module-> Reports -> Transaction report.

3.1.2 Budget Services

Budget services for citizens on the portal are as follows:

- Report on Monthly Data of Treasury-wise Expenditure
- Report on Monthly data of Receipts
- Fund Release Orders
- GDFP Rules
- Supplementary Estimates Book

These services are made available in the respective pages based on the user type. The mapping between services and users are given in the following table.

SL No Name of the service **Target User group** 1 Report on Monthly data of Treasury wise Citizen expenditure 2 Report on Monthly data of Receipts Citizen 3 Fund Release Orders, GDFP Rules Department users 4 **Supplementary Estimates Book** Citizen 5 Transaction report Treasury users (DoT)

Table 6: Classification of Budget Services based on user type

A brief explanation of the services is as follows:

- Report on Monthly Data of Treasury-wise Expenditure: These reports will
 provide consolidated treasury-wise information related to value / volume of
 works, goods, services and beneficiary related schemes that are being
 implemented. This report will be available in the citizens page in the Reports
 section.
- **Report on Monthly data of Receipts**: These reports will provide value / volume of remittances received under various receipts heads, under a consolidated head. This report will be available in the citizens page, in the **Reports** section.
- **Fund Release orders, GDFP Rules:** These reports provide information about fund releases and general delegation of financial powers by the AD. These reports will be available in the Department user's page.
- **Supplementary Estimates Book**: These reports provide information about supplementary estimates provided for schemes / budget line. These will be available under **Acts / Rules** in the Home page.

3.1.3 Receipts Services

Receipts module services on the portal are as follows:

Challan Generation

- Updation of NEFT / RTGS Reference Number
- Search Challan
- Request for Credit Certificate
- Credit Certificate Tracker
- Credit Statement Generation
- Generation of Consolidated Challan for the CFC Funds
- Reports.

These services are classified under one of the services listed in section 2.5 based on the type of user groups who are intended to use them. Based on the user category, services are made available in the Home page, Citizen Services page-, or External users page in the portal. The mapping between the services and the user groups are given in the following table.

Table 7: Classification of Receipts Services based on user type

SL No	Name of the Service	Target User Group
1	Challan Generation	Citizen
2	Updation of NEFT/RTGS Reference Number	Citizen
3	Search challan	Citizen
4	Request for credit certificate	Citizen
5	Credit certificate traker	Citizen
6	Credit statement generation	Citizen
7	Generation of consolidated challan for CFC funds	External Agency
8	Reports	DDO

A brief explanation of the Receipts module services is as follow:

- Challan Generation: This link will be used for generating Challans by Citizens. A
 Challan is used for making remittance and it contains all the details of remittance.
 This facility is provided in the portal under Citizen Services -> Receipts module ->
 Challan.
- Updation of NEFT / RTGS Reference Number: This service will be available for citizen users and will be used for updating the NEFT / RTGS Reference Number against the Challan in cases of NEFT / RTGS remittances through Non-Agency Banks. Updating of NEFT/ RTGS reference number is done after payment at non agency bank by the remitter. This facility is provided in the portal under Citizen Services -> Receipts module -> Challan.
- **Search Challan**: This service is available for citizen users and is used for searching the Challan. Search Challan is used to locate a challan which is there in the

Khajane II database. This facility is provided in the portal under **Citizen Services** - > **Receipts module** -> **Challan.**

- Request for Credit Certificate: This service will be available for citizen users and
 will be used for generating a request for Credit Certificate. A credit certificate is
 used when challan or receipt has been misplaced. This facility is provided in the
 portal under Citizen Services -> Receipts module -> Credit Certificate.
- **Credit Certificate Tracker**: This service will be available for citizen users and will be used for tracking the status of the Credit Certificate. The credit certificate tracker is used to check the status of credit certificates. This facility is provided in portal under **Citizen Services** -> **Receipts module** -> **Credit Certificate**.
- Credit Statement Generation: This service will be available for citizen users and will be used for generation of a Credit Statement. A credit statement is used when a challan or receipt has been misplaced and the details of remittance are required for any transaction. This facility is provided in the portal under Citizen Services -> Receipts module -> Credit Certificate.
- Reports: This service will be available for DDO and used to generate reports. This
 facility is provided in the portal under Citizen Services -> Receipts module ->
 Reports.
- **Generate Consolidated Challan for CFC Funds**: This service will be available for external agency or CFC Fund, Managers ,where they can access the challan link and generate the consolidated challan for the CFC funds. This facility is provided in the portal under **External Agency** -> **Receipts module** -> **Credit Certificate**.

3.1.4 Pension Services

Pension module services on the portal are as follows:

- Pension Calculator
- Pensioner registration / view PPO details/ Raise Grievance
- Submit and download of Annexure A and H by pensioner
- New Pension Case Processing
- Life Certificate Processing
- Monthly Payment through CPPC
- Pensioner Registration on Portal

These services are classified under Pension services listed in section 2.5. Citizens (pensioners) are the main users of these services. A brief explanation of the bill module services is as follows:

• **Pension Calculator:** This User-Friendly service will be available to pensioner as well as general public on Khajane II portal for obtaining their pension entitlement, after a general revision of the pensions.

Many Pension Calculators are available such as the following:

- Pension Calculator Prior
- Dearness Allowance Calculator

Pension Calculator can be of any one of the following types:

- Basic Pension, Family Pension and Commuted Pension Calculator
- Gratuity Calculator
- DA Calculator
- Revised Pension Calculator for 5th and 6th pay commission pensioner
- Pensioner Registration / View PPO Details/ Raise Grievance: In this service, pensioners can register themselves through this portal. Registered pensioners would be able to view PPO, DCRG, CVP details and would able to register a grievance and view the resolved grievance status.
- Submit and Download of Annexure A and H by Pensioner: Pensioners can submit the Annexure A and H online and would be able to view the submitted Annexure A and H.
- New Pension Case Processing: In this service, CPPC will update the receipt of the hard copies for the PPO's (Batch ID)in the KHAJANE II system by directly accessing the KHAJANE II portal.
- Life Certificate Processing: The certificates will be collected by the paying branch and forwarded to CPPC, which shall upload the same into Khajane II portal.
- **Monthly Payment through CPPC**: If there is any excess payment done by CPPC, CPPC will remit the money by challan payment in Khajane-II portal.
- **Pensioner Registration on Portal**: Pensioners will be able to register themselves to the portal on after receiving the PPO Number. The Pensioner Registration details will be stored.

3.1.5 Social Security Pension (SSP)

SSP services on the portal are as follows:

- Downloading SS Pensioner details for Agency Bank and Link Bank
- Uploading undrawn status
- SSP Statistics report

These services are classified under one of the services listed in section 2.5 based on the type of user groups who are intended to use them. Based on the user category, services are made available in the Home page, Department users page, or Treasury users page in

the portal. The mapping between the services and the user groups are given in the following table.

Table 8: Classification of SSP Services based on user type

SL No	Name of the service	Target User group
1	Downloading SS Pensioner details	Agency Bank and Link Bank
2	Uploading undrawn status	Agency Bank
3	SSP Statistics report	Department user

A brief explanation of the SSP module services as follows:

- Downloading SS Pensioner Details for Agency Bank: Here the Agency bank user logs in to the Khajane II portal. Agency bank user will select the Agency bank name, month, and year. On selecting the fields the SS pensioner list belonging to the Agency bank will appear. The Agency bank user will download the SS pensioner list from the portal. The Agency bank will send the list to all its branches (where the SS pensioners have their account).
- **Downloading SS Pensioner Details for Link Bank:** Here the link bank user logins to Khajane II portal. Link bank user will select the Link bank name, month, and year. On selecting the fields the SS pensioner list belonging to the link bank will appear. The link bank user will download the SS pensioner list form the portal. (The link bank will send the list to all its branches).
- Uploading Undrawn Status: If the account of the SS pensioners remain inoperative for three months (when the SS pensioner has not withdrawn the amount for three consecutive months) all the bank branches will send the list to the Agency bank and agency bank will upload the consolidated undrawn status of the SS pensioner from all branches using the khajane II portal.
- **SSP Statistics Report:** Based on requirement of DSSP-BMS, Tahsildar/Deputy Tahsildar following types of reports can be generated:
 - Number of Cases kept in suspension and revived state, Category/ District/ Taluka/ Village wise
 - Number of Fresh cases added during the month, Category/ District wise/ Taluka wise/Village wise
 - ➤ Number of SSP cases deleted, Category/District/Taluka/Village wise
 - > Category wise monthly pension payment made
 - ➤ The list of SS Pensioners who have not drawn their pension for last three consecutive months from Bank/Post Office (Annexure 308)
 - Number of cases kept in suspension during the month cumulative. Category / District / Taluka wise (Annexure 313)
 - > Arrear payment made category wise
 - The details of all Social security pensioner

- Number of active/Non active Pensioner
- Age wise, Category wise, Subcategory wise, gender wise, District wise, Taluka wise, Village wise active pensioner report
- Category wise number of beneficiaries Statement Between
- ➤ List of Expired SSP IDs
- SSP Expenditure Report
- Suspense amount detailed report
- Scheme wise Expenditure statement between two dates
- Details of cases transferred from One Disbursement Mode to Other Mode
- Change in Category, Subcategory of the SS pensioner
- > Expenditure incurred during the Month
- Plan/Non Plan SS pensioners mapping master Report

3.1.6 New Pension Scheme (NPS) Services

NPS services on the portal are listed as follows:

- Download and upload excel for soft copy registration details
- Screen to track soft copy registration details
- Download and upload excel for form based registration details
- Screen to track form based registration details
- Registration portal
- Capture SoT from CRA
- Employee Ledger

These services are classified under one of the services listed in section 2.5 based on the types of user groups who are intended to use them. Based on the user category, services are made available in the Home page, Department users page, Treasury users page or Treasury users page. The mapping between the services and the user groups are given in the following table.

Table 9: Classification of NPS Services based on user type

SL No	Name of the service	Target User group
1	Download and upload excel for soft copy	DDO not migrated to
	registration details	Khajane II
2	Screen to track soft copy registration details	DDO not migrated to
		Khajane II
3	Download and upload excel for form based	DDO not migrated to
	registration details	Khajane II
4	Screen to track form based registration details	DDO not migrated to

		Khajane II
5	Registration Portal Screen	CRA-FC
6	Capture SoT from CRA	NPS-Subscriber
7	Employee Ledger	NPS-Subscriber

A brief explanation of the NPS module services is as follows:

- **Download and upload excel for soft copy registration details:** DDOs that have not migrated to Khajane II, will login to the Khajane II portal and download excel template for soft copy registration details. After filling the template, the DDOs will upload excel having soft copy details into Khajane II portal.
- Screen to track soft copy registration details: This service helps to keep track of soft copy registration details(for DDOs that have not migrated to Khajane II)
- **Download and upload excel for form based registration details:** DDOs that have not migrated to Khajane II, will login to the Khajane II portal and download excel template for Form based registration details. After filling the template, the DDOs will upload excel having Form based details in Khajane II portal.
- Screen to track form based registration details: This service helps to keep track Form Based Registration Details (for DDOs that have not migrated to Khajane II)
- **Registration Portal Screen:** This screen will be available to CRA-FC in the Khajane II Portal for updating the registration details
- Capture SoT from CRA: There will be real time integration with CRA to fetch the Statement Of Trancastion (SoT) when requested by the Subscriber on the Khajanell Portal. This SoT will be in the form of a report.
- **Employee Ledger:** This is employee ledger generated at Khajane II; it contains month wise contribution details of the employee and complete track of the contribution flow from the token number to the matched and booked.

3.1.7 Deposits Services

In Deposits module only reports are available in the portal.

These reports are classified under one of the services listed in section 2.5 based on the types of user groups who are intended to use them. Based on the user category, services are put up in Citizen users page, or Department/Treasury users page in the portal. The mapping between the services and the user groups is given in the following table.

Table 10: Classification of Deposits Services based on user type

SL No	Name of the service	Target User group
1	Monthly/Quarterly data of receipts and	Citizen user
	expenditure with respect to CM's Relief Fund	
	Deposit Account	
2	Monthly data of receipts into Deposit Account	Department/Treasury user
	from different budget heads.	
3	Monthly data of expenditure from deposit	Department/Treasury user
	account for the purpose of implementation of	
	different schemes.	
4	Checking the status of bill or cheque issued from	Citizen user
	deposit account for the purpose of payment.	

The brief explanations on reports are as follows:

- Monthly/ Quarterly data of receipts and expenditure with respect to CM's Relief Fund Deposit Account: This service is available for ciitzen users and is used to record the receipts and expenditure made from CM's relief fund deposit account on a monthly basis. This facility is provided in the portal under Citizen services-> Deposits Module-> Reports.
- Monthly data of receipts into Deposit Account from different budget heads:
 This service is available for department/treasury users and is used to record the data of receipts into deposit from different budget heads on a monthly basis.
 This facility is provided in portal under Department/Treasury users-> Deposits Module-> Reports.
- Monthly data of expenditure from deposit account for the purpose of implementation of different schemes: This service is available for department/treasury users and is used to record the expenditure made from different deposit accounts on a monthly basis (expenditure means amount spent on different schemes). This facility is provided in the portal under Department/Treasury users-> Deposits Module-> Reports.
- Checking the status of Bill/ Cheque issued from deposit account for the purpose of payment: This service is available for citizen users and is used to check the status of bill/ cheque issued from the deposit account (whether the cheque/ bill is paid or unpaid in the Khajane-II system). This facility is provided in the portal under citizen services-> Deposits Module-> Reports.

3.1.8 Account Liability Management (ALM) Services

ALM module presents reports as graphical representation of the content to the user.

Graphical representations are classified under one of the services listed in section 2.5 based on the type of user groups who are intended to use them. Based on the user category, services are made available in Department users page of the portal. The mapping between the services and the user groups is given in the following table.

Table 11: Classification of ALMI Services based on user type

SL No	Name of the service	Targeted User group
1	Project debt servicing statements.	Department user
2	Investment Profile.	Department user

The brief explanation of the services is as follows:

- Projected debt servicing statements: This service is available for department user and presents graphical representation of loans taken by GoK (each loan is represented separately). It includes analysis of:
 - i. Loan payable by GoK
 - ii. Loan paid by GoK
 - iii. Loan remaining to be paid: This facility is provided in the portal under Department users-> ALM Module.
- **Investment Profile:** This service is available for department user and presents the graphical representation of T-Bill investment by GoK. This facility is provided in the portal under Department users-> ALM Module.

3.1.9 Inventory and Strong Room Services:

Inventory and Strong Room provides services only for department users. Following is the service:

Use of **Annexure A** Form: This form is available for department users so that they can deposit their valuable articles in the strong room of the treasury.

3.2 Intranet Application

This application is made available only for the department users. All the services are made available to users based on role and access levels. Services with respect to the different modules have been explained in their respective SRS documents.

CHAPTER 4. PORTAL LAYOUT

Khajane II has two portals - one on the internet and the other on the intranet (for department users). The layouts of both the portals are explained in the following sections.

4.1 Internet Application

This portal application is published over the internet and is available for all the category of users as specified in the '2.4 Portal Users' section. Sample layout and description of following pages have been discussed:

- i) Landing Page: This page appears when the URL for the internet application is entered to the browser. For example, 'www.karnatakatreasury.gov.in' can be considered as the URL for Khajane II internet application.
- ii) Login Page: This page enables the users to authenticate themselves to avail certain services on the portal.
- iii) Application Page: This page appears when the users requests for various services like challan generation, pension calculator, and so on

Description of these pages is detailed in the flowing section.

4.1.1 Landing Page

This page comes up in response to the URL 'www.karnatakatreasury.gov.in'. The portal landing page contains tabs and links for the different sections based on the users accessing it. It can be further divided into five sections — Title bar, Header, Horizontal Tabs, Content Main (Content Area and left navigation) and Footer.

Title Bar:

The title bar contains links to Kannada portal, Login, Contact Us and Sitemap.

- Login option allows registered users to login to the Khajane II portal.
- Kannada Link navigates the user to the Kannada portal.
- 'Contact Us' contains details about the following:
 - 1. Contacts from the Finance Department
 - 2. Contacts from the Department of Treasuries
- Sitemap provides the portal sitemap.

Header:

The header contains the Government of Karnataka logo with the title "Khajane II, Integrated Finance Management System, Finance Department, and Government of Karnataka" with an image of Vidhan Soudha in the background.

Horizontal Tabs:

The horizontal tabs provides the common links such as Home, About us, Services, Forms, Rules and Help. The navigation bar will also have a provision for content search at the right hand corner. The following are the details for the menu items.

- 'About us' will contain details of
 - 1. A brief description about the Finance Department
 - 2. Initiatives for an integrated Financial Management System
 - 3. A brief description about the Department of Treasuries
 - 4. Computerisation initiatives by the department
 - 5. KHAJANE
 - 6. KHAJANE II
- 'Services' will be classified as follows:
 - 1. Official Services
 - 2. Public Services
 - 3. Pensioner's services
 - 4. Stake Holders Services
- 'Forms' will contain the list of forms that can be downloaded from the portal.
- 'Rules' will provide brief description about rules like 'KTC', 'MCE', and so on.

Main Content:

The main content section is spread across the portal as a two column layout. This contains the content area and the left navigation. The right column of the layout contains the content area and the left column provides information regarding vision and mission of Khajane-II, Search field to find to publication, Receipts/ Payment voucher details, Khajane-II — Project Monitoring Unit and navigation links pertaining Latest Announcements and specific links for the external agencies as well. It also provides common notifications required to all the users.

Content Area:

This is the main area where the actual work flow of all the services/functionalities of the portal is presented. According to the services specified by the user the corresponding information is reflected in this section.

In the main page the content area contains an image slider, portal search, welcome note on Khajane II vision and mission and statistics.

Image Slider:

There are a set of images depicting Karnataka's culture. When the user clicks on "Welcome to Khajane II portal" button present beneath the image it slides to the next image among the set of images.

Portal Search:

Khajane II portal provides two types of search fields namely content and keyword specific search. Content search enables the user to search for any information or content that was published over the portal. Keyword search facilitates users to search for publications, forms, manuals and other documents over the portal. Content search icon is provided along with the horizontal tabs in the header. Keyword search is placed in the left navigation area.

Portal Services:

The portal services are categorized based on the type of users. Services are available as image links in the home page below the slider. The services are:

- Citizen services
- Pension services
- Department users
- Treasury users
- External Stakeholders

Each link leads to a customized portal page with predefined list of services. These services may require authentication as per the requirement.

Performance at a glance:

This section provides a graphical presentation of overall state performance. It explains the hierarchy of the Department of Treasuries system. Similar to Welcome note section even here a "Read more" link is provided for a detailed summary.

The graph gives a pictorial representation of any one of them:

- i) Monthly/quarterly/Half yearly/Yearly statistics about No. of challans and vouchers with amount and the provisions in the budget.
- ii) Demand wise expenditure statements
- iii) Any other related statistics as per the functionalities finalized in the SRS of Khajane II modules.

Left Navigation:

This is common to all pages in the portal similar to header, horizontal tabs, footer, etc. This remains same even when the content area differs. Welcome not on Khajane II, Latest Announcements and External Agency Services fall under this.

Welcome note on Khajane II:

The welcome note contains the basic information and for the interest of the user a "Read more" link is provided to understand it in detail. Envisaged benefits from Khajane II provide the key features of the Khajane II system.

Latest Announcements:

It contains latest announcements and this section is presented in the form of a marquee with department announcements.

External Agency Services:

It has customised links to the following:

- National Portal of India
- Receipts / Payments voucher details
- Khajane II project monitoring unit
- Finance Department
- HRMS
- Pension AG
- Commercial Tax Dept
- Karunadu site

Footer:

The footer has the following information:

- i) A sentence to declare that "This is the official website of Finance Department of Karnataka, India"
- ii) Quick Links: Following quick links are available:FAQs, Related Links, Contact us, Disclaimer, Terms and Conditions, Privacy Policy, Contact the Treasury
- iii) Copyrights: The footer has a copyright section mentioning "Copyrights 2014 Department of Treasuries"
- iv) Last Updated: This will provide in the last updated date of the portal content.

The screenshots of the portal layout is as follows.



Figure 3: Portal Layout

4.1.2 Login Page

This page enables the user to get authenticated and avail certain services over the portal. This page will be launched in the following circumstances:

- i) Clicking the Login link in the header of the portal
- ii) Performing certain functionality in the portal like uploading / downloading documents, registration and so on.

The Login page provides form based authentication. It has the following fields:

- Username
- Password
- Drop down with options:
 - 1. Login as Citizen
 - 2. Login as Pensioner
 - 3. Login as Employee
 - 4. Login as External Agency

Enrolment and authentication procedures have been detailed in MDM SRS and Application Security SRS **section**.

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KHAJANE II
Integrated Finance Management System
Finance Department, Government of Karnataka

Finance Department of Karnataka

The screenshot of the login page in the shown Figure 4.

Figure 4: Portal Login page Layout

LATEST ANNOUNCEMENTS CONTACT THE TREASURY

4.1.3 Application Services Page:

DISCLAIMER TENDER/AUCTION

FAQS RELATED LINKS CONTACT US

This page is launched when a user requests for a service over the internet application. Three layouts have been defined for this page based on the user type, (employee or non-employee).

Sample layout of employee page and citizen page are shown in Figure 5 and Figure 6 respectively.

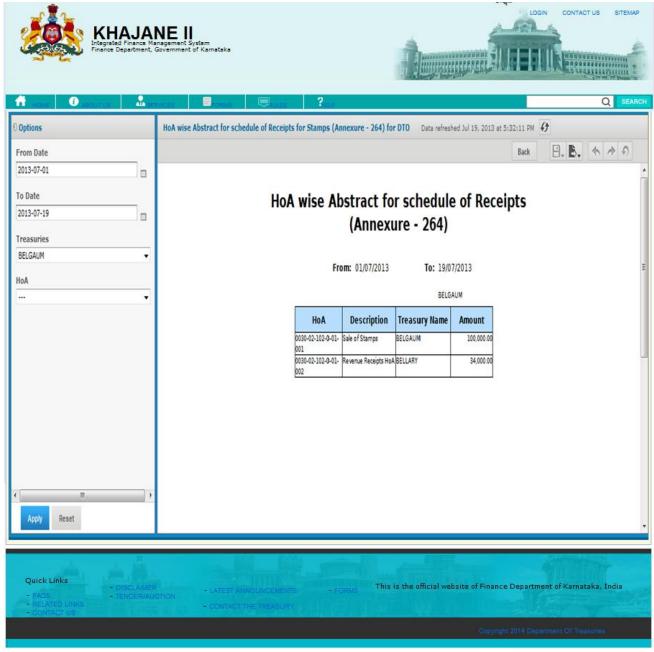


Figure 5: Portal Application services page Layout – Employee

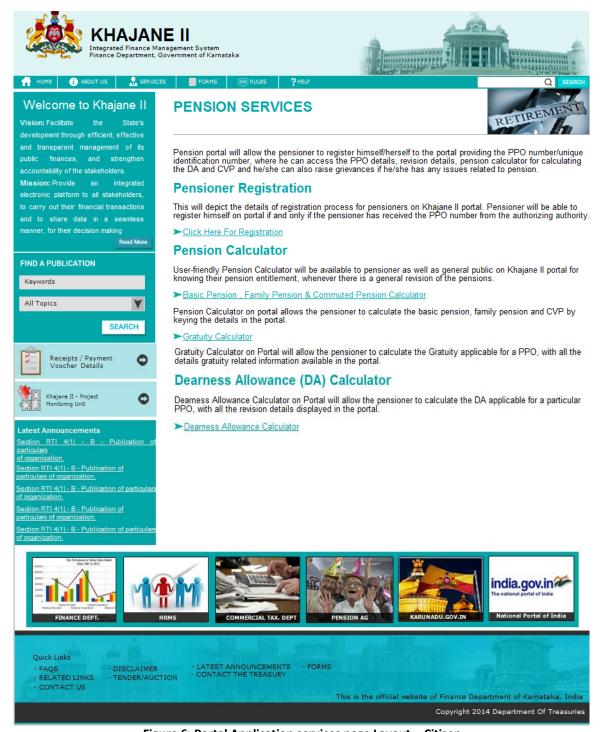


Figure 6: Portal Application services page Layout – Citizen

Sample layout of an external agency user (CFC) accessing 'Consolidation of Challan' is shown in Figure 7.

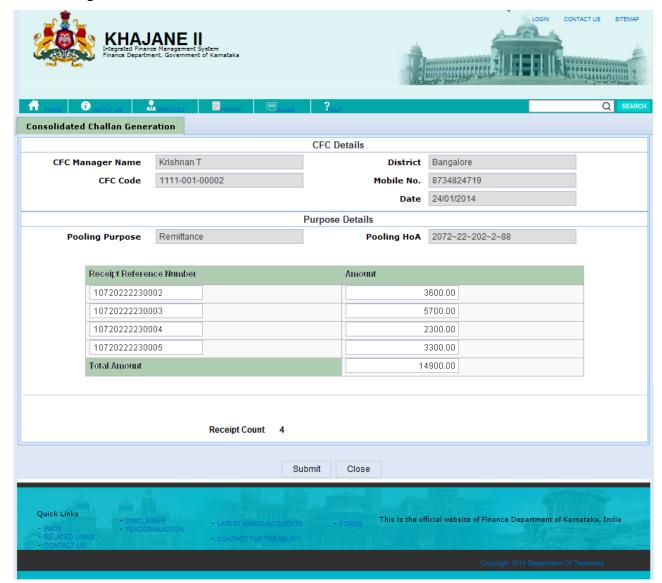


Figure 7: Portal Application services page Layout - External Agency user

4.2 Intranet Application

The intranet application is available only for the department users. Sample layout and description of the following pages have been discussed:

- i) Login Page: This will be the landing page of the intranet application for the department users.
- ii) Home Page: This page will be launched based on authentication and authorisation of the user.

iii) Application service page: This page will be launched when user requests for some service.

Description of each page is detailed in the following sections.

4.2.1 Login Page

This page appears to the url 'www.karnatakatreasury.gov.in' on intranet. This is the first screen of Khajane II Application. Employee can provide credentials for accessing business applications based on the assigned roles. Khajane II application can be accessed either in English or Kannada based on the language selected in the following screen.



Figure 8: Intranet Application Login page

4.2.2 Home Page

Home page is the first page displayed on successfully logging in to Khajane II application. User will be able to view folders based on the assigned roles.

For example, in the following screen the user has access to business applications of Receipt module and work-list.

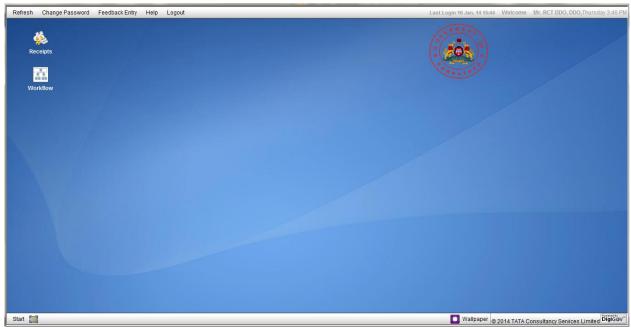


Figure 9: Intranet Application - Home page

4.2.3 Application Service Page

Menu Items: This page displays the menu items associated with each module. The menu items are displayed based on the role of the logged in user. The menu items are logically grouped and sorted for ease of access. Each logical group can be expanded and collapsed by the user as per the requirement.

For example, the following screen is displayed on clicking Receipt icon in Figure 9. The menu items are logically grouped as "Transactions" and "Reports".

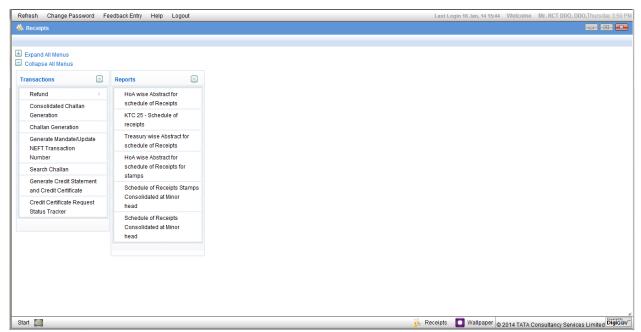


Figure 10: Intranet Application - Receipts

'Search Challan' screen: The following screen is a typical business application screen designed as per the requirements mentioned in module specific SRS. Design of every screen in Khajane II intranet application is covered under module specific SDD.

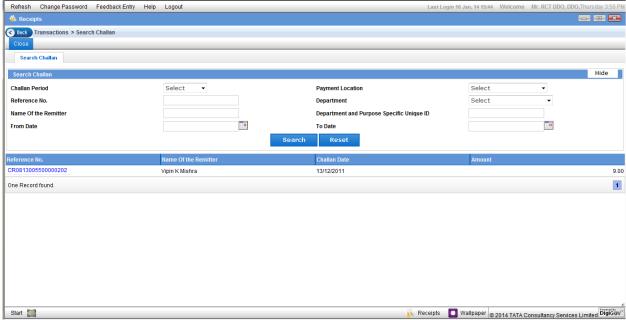


Figure 11: Intranet Application - Search Challan page

CHAPTER 5. PORTAL - CONTENT MANAGEMENT:

A web content management system (WCMS) is a software system that provides website authoring, collaboration, and administration tools designed to allow users with little knowledge of web programming languages or markup languages to create and manage website content with relative ease. A robust WCMS provides the foundation for collaboration, offering users the ability to manage documents and output for multiple author editing and participation.

The portal content is managed using IBM Web Content Management (WCM) tool. Most systems use a content repository or a database to store page content, metadata, and other information assets that might be needed by the system. IBM WCM uses DB2 database to maintain content repository.

The steps to create a portal application using IBM web content management are as follows:

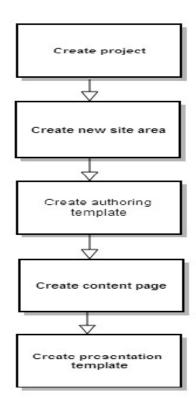


Figure 12: Steps in Portal Creation

- 1. Creation of project.
- 2. Creation of site area which include content pages.
- 3. Creation of authoring templates
- 4. Creation of content to display on application.
- 5. Creation of presentation templates.

Two templates play an important role in web content management which are:-

- 1. <u>Authoring template creation</u> An authoring template determines the design of a content form, defines what fields and elements appear on a content form and specifies default values for fields and elements.
- 2. <u>Presentation template creation</u> Presentation templates allow you to change the look of a page without having to update what is being displayed on a page.

Khajane-II portal has been developed using IBM Websphere Portal tool and content is created and maintained using web content management. A sample layout of the portal is provided in the Portal Layout (Section 2.6). The layout has links for login, About Us, Contact Us and Sitemap. Tabs are provided to provide information on Khajane-II.

Khajane II portal will be developed through following steps in IBM WCM:

- 1. Creation of Khajane II project
- 2. Creation of site areas under Khajane II in WCM as per content categorization
- 3. Creation of content under each site area
- 4. Creation of pages for each section in portal.

Pages will have the following options: -

- Create Creates new page.
- Delete Deletes the selected page.
- Add Workflow Adds workflow to page.
- Preview To view the page.

Each page creation will have the following three workflow stages:-

- Draft The item is not published yet and is not available on the live website
- Approve The item has to be approved to be published.
- Publish The item is published and thus is available on the live website.

Different roles are present to publish the content on a page which are:-

- Creator (Author) Initiates the creation of each page along with the content.
- Approver Approves the content to be published on the portal.
- Designer Designs each page based on the content.
- Site Administrator Publishes the content on the portal.

These roles have to be associated to certain users in the treasury department for updating the content.

5.1 Use Case of Portal Content Management

The following use case diagram depicts specific user oriented interaction of process of creation / update portal content.

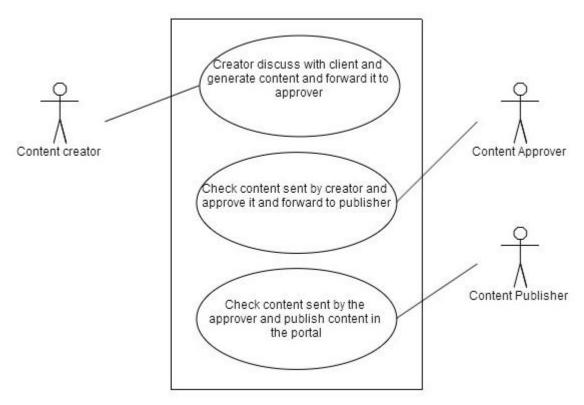


Figure 13: Use Case Diagram - Create Portal Content

5.1.1 Use Case Description - Portal Content Management

Table 12: Use Case Description: Create Portal Content

Use Case Number	1	
Use Case Name	Create content	
Actor	Content Creator	
Description		
Content creator will discuss about content with client. After discussion Creator will		
analyze the data and pages in which data can be put. After this creator will log into Web		
Sphere Portal and create content and forward it to the content approver for approval.		

Use Case Number	2		
Use Case Name	Approve content		
Actor	Content Approver		
Description			
Content approver v	Content approver will log in to Web Sphere Portal and check the content. Then approver		
will approve it and	will approve it and forward it to publisher.		
Use Case Number	3		
Use Case Name	Publish content		
Actor	Content Publisher		
Description			
Content Publisher will log into the IBM Web Sphere Portal and will check the content			
and publish it in the Portal.			

5.1.2 Portal Content Management Process

The following process table explains the steps involved for content management in the Portal.

Table 13: Process Table of Update Portal Content

Sr. No.	Ston Namo	·	
31. 110.	Step Name	Description	
1	Content Creation	 a. Content creator will discuss with the client about their requirement. b. Creator will identify respective content for English and Kannada portal based on the discussion. c. Creator will identify the authoring and presentation templates to be created in the portal. d. After analysis creator will create the content and forward it to the approver for approval. 	
2	Content Approval	Content Approver will verify the content created by creator and approves it.	
3	Content Publisher	After getting approval from the approver, the Publisher will publish the content in the portal.	