Document Management System

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Acknowledgment

Cinntra takes this opportunity to thank the Radhika Heights Team for the opportunity to submit this document.

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Document Control

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Purpose	Document detailing requirements of the system
Prepared by	Mr. Nipun Dixit
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Document Management System

Table of Contents

1. Introduction

Radhika Heights Limited is a public limited company based in New Delhi, India. It is a MCA Provider company with different offerings.

Radhika Heights undertook the services of Cinntra InfoTech to benefit from Cinntra's vast and rich experience in Technology Development to help them in building Document Management System. Which in-turn can help the application users to smoothly carry out their operations.

Cinntra Info Tech, a niche IT Services and Consulting organization focusing on transformational solutions and services, would like to thank the Radhika Heights team for providing us this opportunity to work on the Document Management System.

This Requirement document is based on our understanding of the key expectations of the RHL Team from our discussion with the team in the discussions.

2. Business Objective

RHL Team is aiming to build up a Document Management System to simplify the maintenance of their Documents, and help the Compliance team to track the Documents in an efficient manner.

The will provide a centralized and secure location for storing, organizing, and managing electronic documents. This will help in efficient retrieval and distribution of documents, as well as improved collaboration and version control. Additionally, a document management system will be able to improve compliance with regulatory requirements and reduce the risk of data loss.

Overall, the goal is to improve productivity and efficiency by streamlining document-related processes.

Confidentiality is the prime objective of the System which should ensure to protect the Document from any important information Leakages.

Following are the main Objectives:
- Safe custody of documents with an accurate location + File Index
- Proper form filling based Submission, Retrieval & Extension
- Proper RC and log maintenance though change log.
- Open and close indication- Whenever a file retrieved from the locker it will be in OPEN and when it returned and verified by legal Dept. and put it back to safe custody the status will become CLOSE.

3. Current Process Operation

Currently RHL Team is using Microsoft Shared drive to manage the Soft copies of the existing documents and for the Hard Copy the operations are being performed Manually, where if any Employee wants to extract the Document, need to submit a Document Retrieval Sheet with details for extracting the documents. The Extension for the Documents can be taken by submitting the Extension forms

Similarly if any Employee wants to Submit the Documents there is a Submission form which needs to be filled and then the file is submitted to the Compliance team.

The forms are given in the next section, which are being used to Retrieve, Submit and Extension of the documents.

Document Management System

<u>Document Retrieval Sheet</u>

A. Authorized Requesting person/ Creator: ………………

B. Department : …………………………

C. Date of Request: ………………………..

D. File name to be required: …………………………………………..

E. File No.(SAP File No.) ……………………..

F. Special permission in case of complete file: ………………..

G. Document required from the file: ………………….

H. Reason: …………………………………….

I. Estimated date of re-submission …………………….

J. In case of delay in re-submission, reason ………………

Submitted by: Approved by: Received by:

(Responsible Person)   (HOD)   (Legal Department)

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Documentation Submission Sheet

1. Authorized Requesting person/ Creator: …………………..
2. Custodian (legal or proposed)………………………..
3. Date of submission:……………………
4. File name:
5. File No.(SAP File No.)……………………
6. Document category:
7. Physical hard copy location: ……………………
8. New/ Existing (for any additions)……………………
9. Additions made on with date: …………………………..

6. Index of File/ document to be added with following format:

S. no.	Date of document	Type of Document	Name of Parties/ Particulars	No. of Pages	Original / Photocopy	Additions made	Due date/ date of review/date of renewal

Process stage:

1. Complete: ……….   2. Incomplete ……………
2. If incomplete, reasons …………………………………
3. Estimated time of Completion ………………………..
4. Outside Dealing persons involved: ………………….
5. Contact no. of dealing person: ………………………….
6. Fees/ expenses paid, if any: …………………………………………..
7. Purpose of File/ Document: ………………………………………….

Submitted by: Approved by: Received by:

(Responsible Person)   (HOD)   (Legal Department)

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EXTENSION FORM

1. AUTHORIZED REQUESTING PERSON/ CREATOR:………………
2. DATE OF REQUEST:………
3. FILE NAME: ……………………
4. SAP FILE NO.: …………………
5. DOCUMENT CATEGORY:
6. DOCUMENT NAME: ……………..
7. SPECIAL PERMISSION IN CASE OF COMPLETE FILE: ………………..
8. DATE OF RETRIVAL: (AUTOMATIC FROM RETRIEVAL FORM) ………………….
9. PURPOSE OF RETRIVAL:………… (AUTOMATIC FROM RETRIEVAL FORM)…………
10. REASON FOR EXTENSION:… ………………….
11. NO. OF TIMES EXTENSION TAKEN PREVIOUSLY:………………..
12. PERIOD FOR WHICH EXTENSION IS REQUIRED:………………………

Submitted by: Approved by: Received by:

(Responsible Person)   (HOD)   (Legal Department)

4. Users and Permissions

The following will be the Users of the Application:

- Admin
- Compliance and Legal Team
    - Legal User
    - Legal HOD
- Departmental Users:
    - IT Team
    - Finance Team
    - Procurement Team
    - Billing and Logistics Team
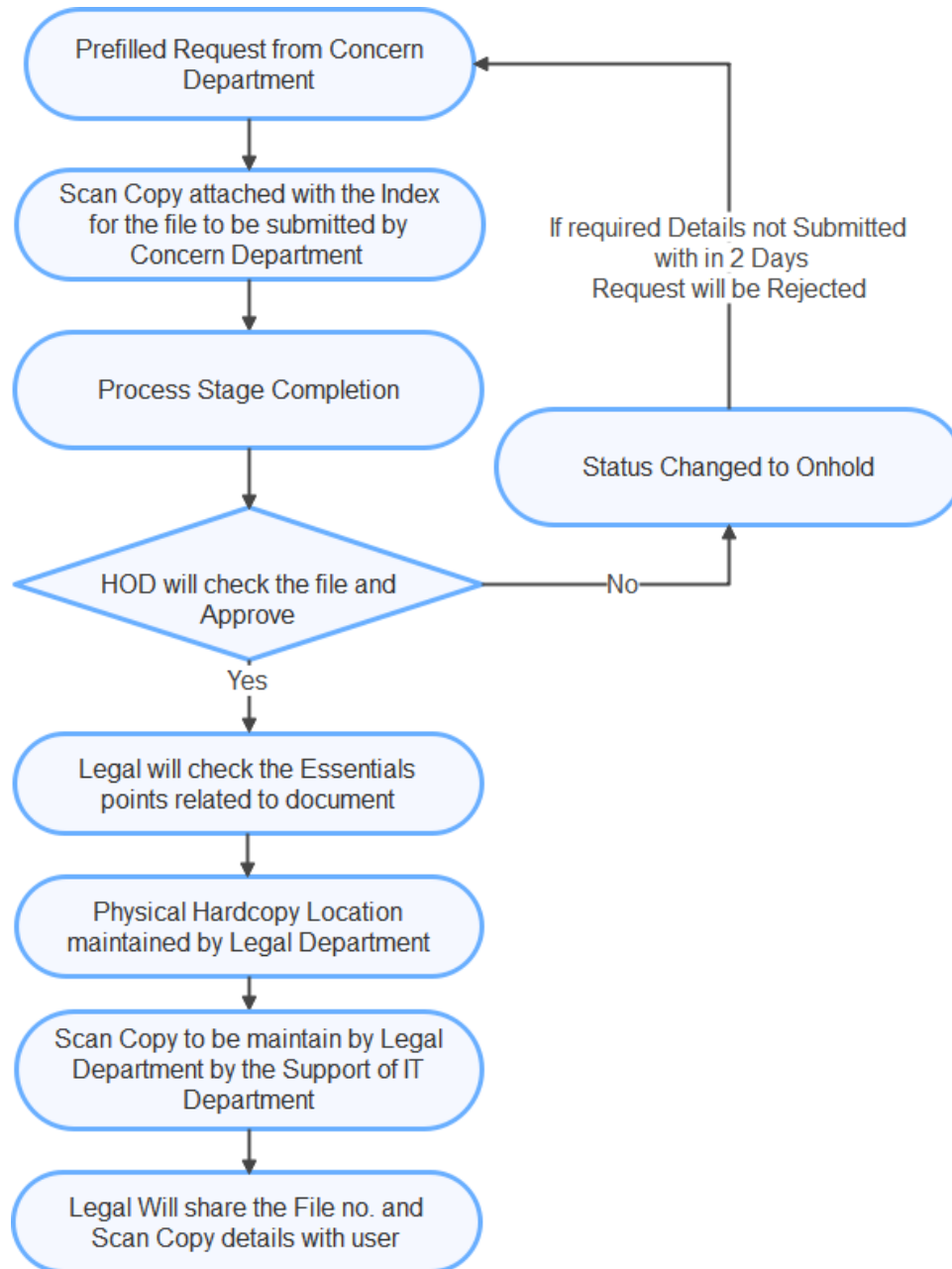
5. Functional Requirements

The Functional Components of the DMS system will include different modules which will work together to provide a complete solution for managing and organizing documents.

Some of the common modules will be:
- Document Repository: A central location where documents are stored and organized. This can include features such as folder structure, metadata, and search capabilities.
- Check-in/Check-out: Allows multiple users to work on a document simultaneously, while preventing conflicts and ensuring version control.
- Permission and Access Control: Allows the administrator to assign different levels of access to different users, such as read-only or edit permissions.
- Document Workflow: Automates the process of routing a document through a series of steps, such as review, approval, and submission.
- Version Control: Allows for easy rollback to previous versions if needed, and keep track of the history of a document, who edited, when and what was changed.
- Audit Trail: A record of all the actions taken on a document, such as who viewed, edited, or deleted it, which can help with compliance and security.
- Search and Retrieval: Allows users to quickly find and retrieve the documents they need, by searching for keywords, metadata, and other relevant information.
- Reporting and Analytics: Allows administrators to track and analyze document-related activities and trends, such as usage statistics, document access, and compliance.
- integration: allowing the DMS to integrate with other systems, such as Office Suite, CRM, ERP, etc.

Note: For any access of the documents, there will be Non Disclosure agreement which will be signed through the application

5.1 Process Flow Chart

```
┌─────────────────────────────┐
│ Prefilled Request from Concern │ ◄───────────────────┐
│        Department           │                      │
└─────────────┬───────────────┘                      │
              │                                       │
              ▼                                       │
┌─────────────────────────────┐                      │
│ Scan Copy attached with the Index │     If required Details not Submitted │
│ for the file to be submitted by │     with in 2 Days                │
│     Concern Department      │     Request will be Rejected      │
└─────────────┬───────────────┘                      │
              │                                       │
              ▼                                       │
┌─────────────────────────────┐                      │
│   Process Stage Completion  │                      │
└─────────────┬───────────────┘         ┌────────────────────────────┐
              │                         │  Status Changed to Onhold  │
              ▼                         └──────────────▲─────────────┘
        ◇─────────────◇                               │
       HOD will check the file and ──── No ───────────┘
          Approve
        ◇─────────────◇
              │
             Yes
              │
              ▼
┌─────────────────────────────┐
│ Legal will check the Essentials │
│   points related to document │
└─────────────┬───────────────┘
              │
              ▼
┌─────────────────────────────┐
│  Physical Hardcopy Location │
│ maintained by Legal Department │
└─────────────┬───────────────┘
              │
              ▼
┌─────────────────────────────┐
│ Scan Copy to be maintain by Legal │
│ Department by the Support of IT │
│        Department           │
└─────────────┬───────────────┘
              │
              ▼
┌─────────────────────────────┐
│ Legal Will share the File no. and │
│   Scan Copy details with user │
└─────────────────────────────┘
```

5.2 Hard Copy Management System

The Following will be the Functionality Set of the Hard Copy Management

5.2.1 Physical document tracking

Allows for the tracking of the physical location, status, and movement of documents within an organization.

- Document tracking by location: Allows for the tracking of documents by their physical location, such as a specific office or department.
  - Shelving or cabinet tracking: Allows for the tracking of where physical documents are stored within a physical filing system, such as in a cabinet or on a shelf.
- Document tracking by category: Allows for the tracking of documents by their classification or category, such as confidential or public.
- Document tracking by status: Allows for the tracking of documents by their current status, such as pending approval or archived.
- Document tracking by expiration date: Allows for the tracking of documents by their expiration date, such as a contract or license.
- Document tracking by keywords or metadata: Allows for the tracking of documents by keywords or metadata, such as author or subject.
- Document tracking by QR Code: Allows for the tracking of documents by QR Code tags embedded in the document.
- Document tracking by check-in/check-out history: Allows for the tracking of who has checked out a physical document and when it was checked out.
- Audit trail: Allows for the tracking of any changes or actions taken on a physical document, such as who has viewed or made changes to it.
  - Document tracking by version history: Allows for the tracking of different versions of a physical document and who made changes to it.
- Document tracking by annotation history: Allows for the tracking of annotations and notes made on a physical document and by whom.
- Document tracking by movement history: Allows for the tracking of the physical movement of documents within an organization and who handled them.
- Document tracking by destruction history: Allows for the tracking of when and by whom a physical document was destroyed

5.2.2 Document Maintenance

Following will be the important elements of the Document Maintenance

- Document indexing and tagging for organization and retrieval
- Secure storage and access controls for physical documents
- Document repair and restoration: Allows for the repair and restoration of damaged physical documents.
- Document destruction: Allows for the secure destruction of physical documents that are no longer needed.
- Document imaging: Allows for the creation of digital images of physical documents for easy storage and retrieval.
- Document retention policies: Allows for the automatic deletion of documents that are no longer needed based on a predefined retention schedule.

5.2.3 Document Security

- Physical document security: Allows for the implementation of security measures to protect physical documents from unauthorized access or damage.
- Documents Accessibility by access level: Allows for the ensuring the Security of documents by the level of access granted to users, such as read-only or edit.
- Confidentiality Levels

5.2.4 Ownership Management

The Ownership management refers to the ability to assign and track who is responsible for managing and maintaining specific documents. This can include features such as setting document permissions, designating document authors and reviewers, and tracking changes made to a document.
This can help ensure that documents are accurate and up-to-date, and that there is accountability for the information contained within them. Additionally, Owners will have the ability to allow different levels of access to be assigned to different users, which can help to ensure data security and compliance with regulatory requirements.

Following will be the components and abilities of Owners as part of the Ownership Management:

- Permission management: The ability to assign different levels of access to different users, such as read-only or edit permissions.
- Document authorship: The ability to assign authorship of a document, which can be used for tracking purposes and to ensure accountability for the information contained within a document.
- Document review and approval: The Owners will have the ability to assign reviewers and approvers for a document, and to track the progress of the review and approval process.
- Version control: The Document Owners will have the ability to track changes made to a document by different users, allowing for easy rollback to previous versions if needed.
- Document retention and archiving: The Owners have the ability to set retention periods for documents, and to automatically archive or delete documents after they have reached their retention period.

5.2.5 Approval Process

The approval process will refer to the workflow that is set up to Retrieve and Submit documents before they are Submitted or made available to the respective Users. This process typically includes the following steps:

- Document submission: The Submission Sheet or Retrieval Sheet is submitted by the user for review and approval.
- Review and feedback: The document is reviewed by one or more designated reviewers, who may provide feedback or suggest changes.
- Approval: The document is reviewed and approved by one or more designated approvers, who are responsible for ensuring that the document meets the necessary standards and requirements.

- Submission: Once the document has been reviewed and approved, it can be Submitted to the Legal Team.

Or

- Retrieval: Once the document has been reviewed and approved, it can be Retrieved from the Legal Team.

- Audit trail: A record of all the actions taken on a document, such as who reviewed, approved, or submitted it, which can help with compliance and security.

This process will help to streamline the approval process and ensure that documents are reviewed and approved in a timely and efficient manner

In addition to these basic steps, the System may also include functionality such as electronic signatures, automated notifications, and the ability to set up different approval workflows for different types of documents..

5.2.6 Integrations

- Integration of the System with the Microsoft Shared Drive.
- Integration with other systems like accounting and inventory management systems.
- Integration with the Barcode Generator in the SAP

5.2.7 Hard Copy and Soft Copy Synchronizations

The Hard and Soft copy will be synchronized with each other in terms of following components:

- Indexing of the Documents
- Access Level
- Confidentiality Access Level
- Rights for the Document: Once the Access Rights of the Soft copy is updated the same rights will be updated for accessing the Hard Copy
  - Read Only
  - Extension Applicable or Not
  - Owner of the Document
  - Update Rights to the Document

5.2.8 Confidentiality Management

Confidentiality management will be an important element in tracking the Confidentiality of the Documents, which will refer to the ability to protect sensitive and confidential information by controlling access to documents and ensuring compliance with data privacy regulations.
Some of the functionality which will be included as part of confidentiality management are:
- Encryption: encrypting the data at rest and transit, to protect it from unauthorized access.
- Blocking the Users from the Print, Download access
- Role-based access control: Allows the administrator to assign different levels of access to different users, such as read-only or edit permissions, based on their role within the organization.
- Data Loss Prevention (DLP): identifies sensitive information and prevents it from being shared outside of the organization.

- Document classification: Allows the administrator to assign classification labels to documents, such as "Confidential" or "Public", which can be used to control access and ensure compliance with regulatory requirements.
- Retention and Archiving: The ability to set retention periods for documents, and to automatically archive or delete documents after they have reached their retention period, to prevent data breaches.
- Audit trail: A record of all the actions taken on a document, such as who viewed, edited, or deleted it, which can help with compliance and security.
- Remote wipe: the ability to remotely wipe or delete sensitive documents from a device, in case it is lost or stolen.

5.3. Document Submission Process
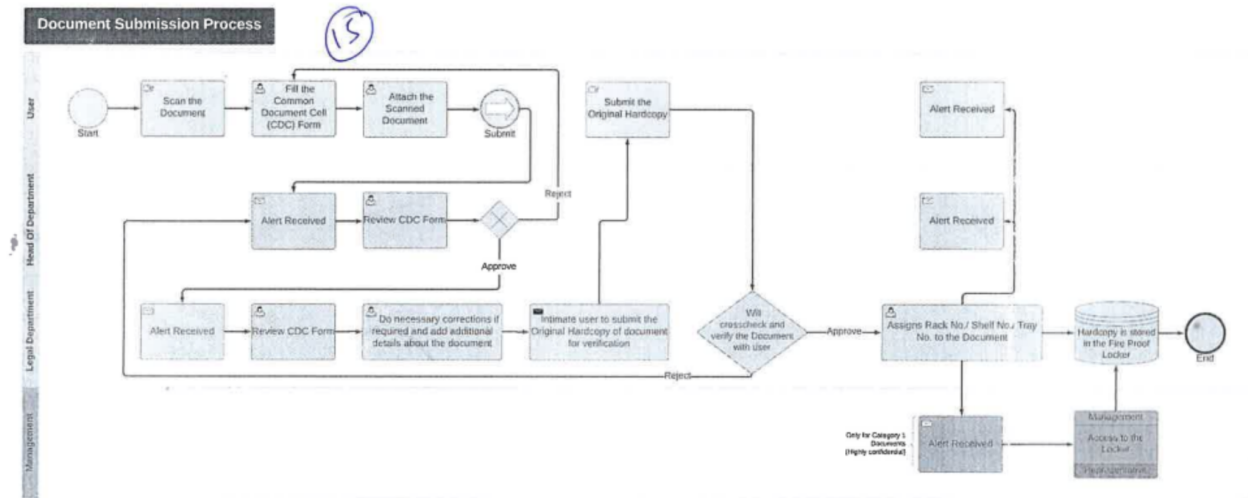
Major Stages:
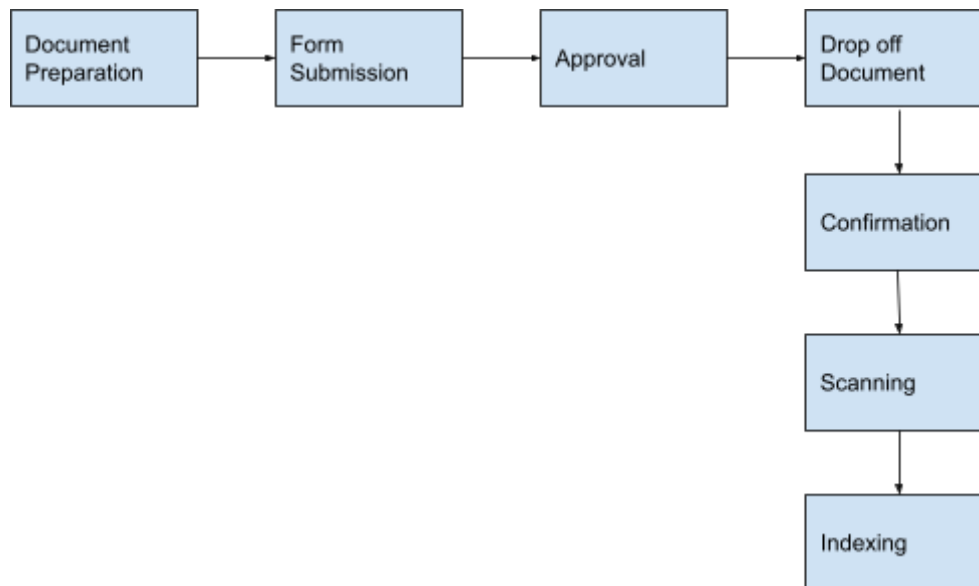
The document submission process will have following stages:
- Prepare the document: The document should be prepared according to the requirements of the organization or system, such as formatting, stapling and labeling.
- Fill out any required forms or metadata: System will require the submission of form with information, such as a title, author, and abstract, and other details.

- Approval: The form filled will be approved by the Legal Team, and Departmental Heads.
- Drop off or mail the document: The user will need to physically drop off the document to the designated location or mail it to the organization or system. The document must be deposited with the approved Form.
- Receive confirmation: After submitting the document, the user should receive a confirmation message or email indicating that the document has been received and is being processed.
- Follow-up: The user should follow up with the organization or system to ensure that the document was received and to inquire about the status of the submission.
- Scanning: The document will be scanned and added to the DMS.
- Indexing: The document will be indexed and categorized for easy retrieval and organization

Fields as part of Document submission will be as follows:
- File Creation Request: Below field required to create a file request
    - (i) File number, file name, Description, Type of file like (Investment, loan, HR policy etc.) ,File storage path, dept., Importance like (Highly Confidential, Confidential, High, Low), Company Name, Expiry Date, No of pages, Renewal date, No of pages, Modified on, File version, file status (Complete, Incomplete), Current status (Issued, In Storage, Partial issued), File source from.
    - (ii) Sub file fields – File no, Sr no, heading, Description, Date of document, Type of document, Name of parties1, name of parties 2, Remarks, No of pages, status (Original, photocopy, certified, custom) , no of pages, sub file status (complete, incomplete), addition made/version, expiry date, renewal date,
    - (iii) File index required with file no, Heading – subheading , Sub file no, SN no , Date of document, Type of document, Name of parties1 , name of parties2, No of pages, Original/photocopy, Addition made/version, Due date, renewal date, expiry date, last update.
- File Creation Approval: Three level approval required – User HOD, Legal user, legal hod. If any file is rejected on any level then again a complete approval step will follow. Last approval person will click on the generate file button and the system will generate the file.

- File Creation - With all field details as given in file creation request.

5.3.1. Challenges and Solutions

The following are the challenges faced in the Document submission process

- It's time taking process where the Legal team and users have to make significant efforts in submission of the Files
Solution: The details will be replicated which will help in minimizing filling the details in forms.
- Indexing the document, especially it is the most time taking task
Solution: Indexing will be automated based upon the number of pages attached in the scanned document.
- Scanning of the submitted documents
Solution: Yes for every document of the file added, there will be provision to scan the documents from mobile, which will help to automatically calculate the indexes. Also, will help in preparing the scanned soft copy for the legal department reference.
- Manual Errors: Users tend to make manual errors in putting down whether the submitted document is Original or Photocopy, they make errors in putting down indexes properly of the documents, Other manual mistakes like miscounting of pages, wrong mentioning of documents or parties etc.
Solution: In the gradual phased implementation, a solution will be tried for OCR to recognize the pages whether they have Photocopy or Original document. Indexes are getting auto calculated avoiding human errors. Validations will be there to avoid the mismatch of the scanned pages and the entered page values.
- Verification is a time consuming task where the Legal department needs to verify that the documents are at the right index and they are submitted as specified in the Index sheet, like: if it's mentioned its Original, then the original document is submitted not the photocopy.
Solution: In the scanning of the documents, the verification work will be simplified.
- Users don't follow symmetrical File or index systems which create confusion while storing documents.
Solution: Scanning will help to optimize and streamline this.
- Authorized users get changed due to resigning etc. and then the whole process needs to be taught to them from beginning till end.
Solution: Applications user management system will help to suspend the account of someone leaving the organization and assign the role to other people of the organization.
- File sizes are very big at times which takes 2 or 3 mails to send the same file.
Solution: Files will be stored in the application which will simplify the access on the cloud.
- Process gets updated whenever there is improvement and this needs to be captured.
Solution: System will have detailed log files which will store any activity done for any file, and the details can be traced back.
- Once Customer details are entered, it should automatically fetch the Customer details to avoid mistakes and save time.

Solution: Customer will be fetched from SAP and their details will be used for filling the forms.

- Segregation of Original/ photocopy needs to be automated so there won't be any manual mistakes in this crucial task. Atleast first round of details to be captured for verification by CDC.
Solution: The solution will be similar as proposed of the Scanned documents.
- Multiple Manual entries need to be done by the user and Legal department for submitting or releasing the files.
Solution: The details will be fetched automatically to avoid tedious filling forms.

Document Resubmission Challenges are below:

- The users don't have proper proof that the files have been submitted to the Legal team

Solution: File submitting of documents, legal department will approve it on receiving it and the Users will be able to track the documents and see the History of past submitted documents.
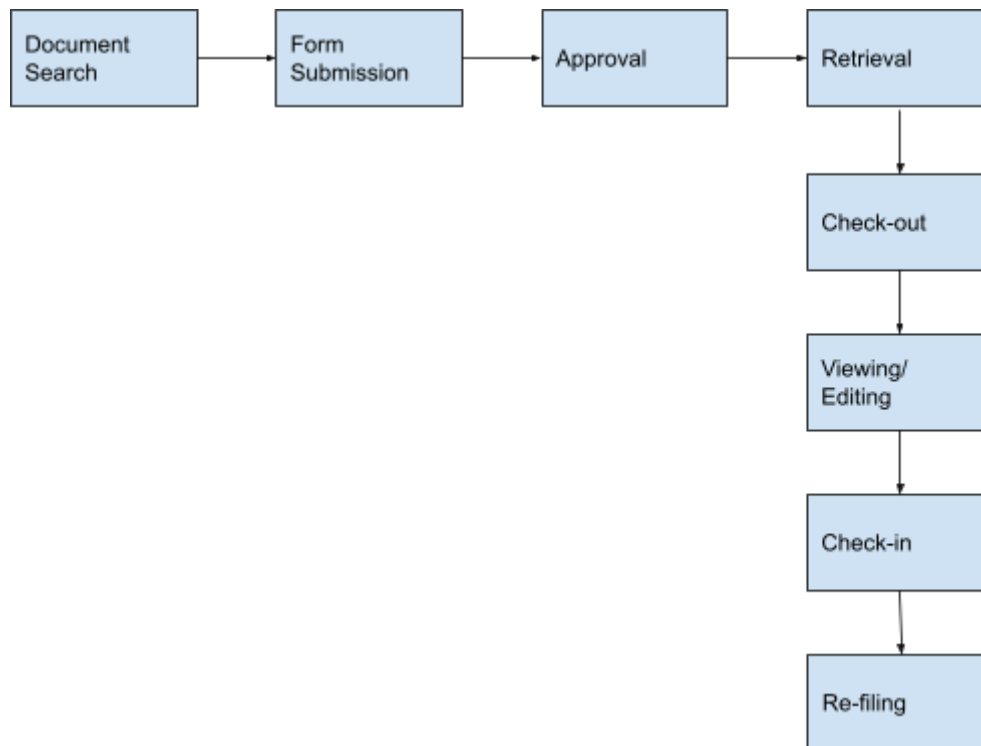
- Maintaining the folders for submitted documents, and moving it from Pending to Submitted is another cumbersome task

Solution: There is no movement of documents in files, it will be automated with the Status mechanism of the files.

5.4 Document Retrieval Process
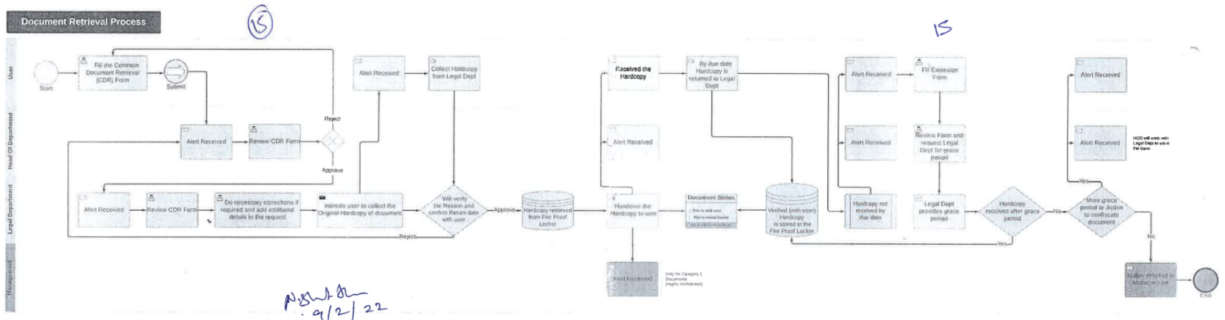
Major Stages:

The process of retrieving hard copy documents from a document management system will have following stages:

- Search: The user initiates a request for the desired document using keywords, metadata, or a specific document number.
- Fill out any required forms or metadata: System will require the submission of form with information, such as a title, author, and abstract, and other details.
- Approval: The form filled will be approved by the Legal Team, and Departmental Heads.

- Retrieval: The system locates the physical document and retrieves it from its storage location. This will be done manually by a Legal member.
- Check-out: The document is checked out to the user who requested it, and the system updates the document's status to indicate that it is currently checked out.
- Viewing/Editing: The user views or makes changes to the document as necessary.
- Check-in: When the user is finished with the document, they check it back into the system.
- Re-filing: The document is refiled back to its original location in the physical filing system.

Fields as part of Document Retrieval will be as follows:
- Retrieval Request screen : Below field required on retrieval request screen
  - Type – Returnable, Non-returnable ,Dept., File no, File name, Sub file no, Reason, Expected date of return, Expected date of resubmission, Delay resubmission date, Delay reason, Importance, page no

- Retrieval Request Approval
  - HOD, Legal user, Legal Hod

- File Issue – Issue by legal user after retrieval request approval.
  - After issuing an alert & mail to the user.
  - If the return date is crossed then alert & mail to the user.

- File Return
  - When the user will return the file then they need to fill the return form with the help of retrieval request number, no of pages & other details.

5.4.1. Further Details

In the document Retrieval Process, there will be only one owner of the file, if another Users wants to take the file, then he has to request Owner to withdraw the file on his/her behalf, the Legal department doesn't care (it won't be visible to Legal department as well) if the Owner has shared the file to another User, for the Legal team the Owner is the sole responsible and POC for the file.

However the Owner can maintain and track internally to which User the file has been shared and the status of the file, this won't be visible to the Legal department. Unless in emergency situations to track any fraud/ theft from the system.

Some files/documents depending upon the confidentiality level will be restricted by the Owner of the file, to share internally to another User

All the retrieval of documents need to be approved by the HOD

HOD can track the movement history internally done by different file owners

Users/Owners of the file can share the file to third party for which he can have tracking and due-date but legal won't be able to see, however Admin and HOD will have that visibility

It will require multiple searches like document wise, party name, original/photocopy, confidential, content wise, department wise, company wise, keywords etc.

5.4.2. Challenges

Following are the Challenges observed in Document Retrieval
- 2 folders of Retrieval form being maintained, which is Pending and Submitted
  Solution: This will be simplified as the Document will be tracked based upon the status.
- Difficult to track the dates of the Retrieved files, which results in keeping the files/documents post the due date. Performing manually it's cumbersome work
  Solution: The system's logs and reminders will help in notifying the users and legal department of the due date and details.
- In order for the extension the file owner has to reach the Legal department to re-issue the file. Document extension is cumbersome process
  Solution: From the application the User can apply for extension of the file. And track down the status of request.
- Difficult to locate the soft copy of file, as it becomes difficult to search which folder in the System the file is present. Currently the system follows the Tree system, which is well suited, just the searching mechanism needs to be improved.
  Solution: Searching will be optimized, where the search for document will be performed on the basis of document wise, party name, original/photocopy, confidential, content wise, department wise, company wise, keywords etc.

5.5 Document Extension Process

Document Search → Extension Form Submission → Approval → Re-filing

The Documents submission date can be Extended by taking the necessary permissions from the Document Owners and the Legal team by submitting the Extension Form.

Following will be stages:
- Search: The user initiates a search for the document that needs to have its retention period extended using keywords, metadata, or a specific document number.
- Extension Form Submission: The user updates the document's metadata or properties to indicate that the retention period should be extended. This might include changing the expiration date or adding a new category or label to the document.
- Approval: The document is then sent for approval to the responsible person or department, who will review and approve the request to extend the retention period.
- Re-file: Once the retention period has been extended, the document is refiled back to its original location in the physical filing system, or to a new location if it has been reclassified.

Following information will be captured:
- Authorized Requesting Person/ Creator
- Date Of Request
- File Name
- Sap File No
- Document Category
- Document Name
- Special Permission In Case Of Complete File
- Reason For Extension
- No. Of Times Extension Taken Previously
- Period For Which Extension Is Required

Note: The approval process will work the same as the issue request.

5.6 Generic Details

- There will be no multi departmental case, the Owner of the file will be a single department, if multiple departments have the common documents then there will be a separate file to be maintained with the different code. The File ID can be maintained accordingly to distinguish that the files are the same but belong to different departments

- The Logs need to be maintained for maintaining the track record of file. It will be helpful for performing audit whenever necessary
- 3 Confidentiality levels:
    - Highly confidential
    - Confidential
    - General
- Dashboard color coding need to be maintained for following things:
    - The Confidentiality of files
    - The Out/Issued/Extended
    - The approval or rejection
    - Hard Copy expiration

5.7 Report and Analytics

Following will be the list of reports and analytics that may be included in a DMS (Document Management System) dashboard:
- Document storage statistics: This report shows the total number of documents stored in the system, as well as the amount of storage space being used.
- User activity: This report shows the number of users who have accessed the system and the number of documents they have viewed, uploaded, and edited.
- Document types: This report shows the different types of documents that are being stored in the system, such as PDFs, Word documents, and Excel files.

- Popular documents: This report shows which documents are being viewed the most, and by whom.
- Document revisions: This report shows the number of times a document has been revised, and by whom.
- Search usage: This report shows the number of times the search function has been used, and the most common search terms.
- Permission and access: This report shows the number of users who have access to the system, and their level of access (e.g. read-only, edit, etc.).
- System performance: This report shows the overall performance of the system, including information on response time, uptime, and any errors that have occurred.
- Integration: This report shows the number of times the DMS has been integrated with other systems, and the type of integration.
- Mobile access: This report shows the number of users accessing the DMS from mobile devices, and the type of mobile devices being used.
- Document retention: This report shows the number of documents that have been deleted or archived and the time frame for those actions.
- Document collaboration: This report shows the number of times documents have been shared, who has shared them and with whom.
- Document workflow: This report shows the status of documents in a workflow, who has approved or rejected them and the time frame for those actions.
- Document versioning: This report shows the number of versions of a document, who created them and when.
- Document security: This report shows the number of documents that have been accessed in violation of security policies, and by whom.
- Document audit: This report shows the number of times a document has been accessed, by whom and when.
- Document tagging: This report shows the number of times a document has been tagged, by whom and the type of tags used.
- Document notification: This report shows the number of times a document has been notified, by whom and the type of notification (e.g email, message etc).
- Document expiration: This report shows the number of times a document has expired, by whom and the time frame for those actions.
- Document translation: This report shows the number of times a document has been translated, by whom and the type of translation used.

5.7 Soft Copy Management System

A soft copy management system, also known as a document management system (DMS), typically includes the following modules:
- Document Capture: This module allows for the electronic capture of documents from various sources, such as scanners, email, or web forms.

- Document Indexing: This module allows for the indexing and categorization of documents for easy retrieval and organization.
- Document Storage: This module provides secure storage for electronic documents, and may include features such as version control, backup and recovery, and disaster recovery.
- Document Retrieval: This module allows users to search and retrieve documents using various criteria such as keywords, document type, date, and author.
- Document Workflow: This module allows for the management of document-based processes, such as routing, approval, and rejection.
- Document Collaboration: This module allows for the sharing and collaboration of documents with other users, and may include features such as commenting, annotation, and version tracking.
- Document Security: This module provides security features such as access control, data encryption, and audit trails to ensure the confidentiality and integrity of documents.
- Document Reports: This module provides a variety of reports and analytics on the usage and performance of the system, such as document storage statistics, user activity, and document revisions.
- Document Integration: This module allows for integration with other systems, such as enterprise resource planning (ERP) systems, customer relationship management (CRM) systems, or other DMS.
- Mobile access: This module allows for access to the DMS from mobile devices, and may include features such as offline access and document syncing.

Other feature sets of Soft Copy management will be:

- Document creation and editing tools
- Version control for tracking changes to documents
- Search and retrieval tools for finding specific documents
- Collaboration tools for multiple users to work on a document simultaneously
- Electronic signature and approval workflow
- Secure storage and access controls for digital documents
- Integrations with other software, such as email and project management systems.

5.8 Outside Organization Party

Following will be the important components of anyone accessing the System who does not belong to the organization:

- Limited access: Outside parties can be given limited access to the DMS, such as read-only access to specific documents or folders. This can be done by creating a separate account for the outside party, with access permissions set to view only.

- Collaboration access: Outside parties can be given access to specific documents or folders for the purpose of collaboration. This can be done by creating a separate account for the outside party, with access permissions set to edit or comment on specific documents or folders.
- Guest access: Outside parties can be given guest access to the DMS, which allows them to access specific documents or folders without needing to create an account. This can be done by creating a unique link or QR code that grants access to specific documents or folders.
- Secure file transfer protocol (SFTP) access: Outside parties can be given access to the DMS via SFTP, which allows them to securely transfer files to and from the organization's server. This method is commonly used when the outside party needs to send large files or when a high level of security is required.
- Cloud-based access: A cloud-based DMS can be used which allows outside parties to access the system through the internet. This method is commonly used when the outside party is a remote team member or when the organization wants to provide access to a large number of external users.

6. Project Management Methodology

6.1 Implementation approach & Methodology

Software Implementation is not just about deploying an integrated system but about transforming the underlying business processes. Moreover, Transformation is a continuous journey, which calls for preparing the organization and equipping it with requisite knowledge and

skill. In addition, a methodology needs to ensure adequate time investment in such activities and facilitate adoption of inherent best practices as proffered by the solution.

The key deliverables of this Model would be adopted from the PMP Methodology that has been adopted widely across Software Development Implementations.

6.2 IT Governance Process Development

The DMS Software implementation needs to follow all stages of the Software Development Lifecycle to ensure smooth end to end implementation.

Post finalization of the SRS Document, Architecture in the current stage, we would continue to the next Development stage, where below activities would be carried out.

The Architecture documentation and other SRS Documents will be forwarded to the Development Team for further development. The projects will be maintained using Scrum tools like Jira, in order for transparent and effective project management. The RHL Team will have access to the tool where the RHL Team will effectively track the project progress & performance.

The development work is carried out as per the sprints and the version control tools are used for better code collaboration and ensuring standard coding practices and guidelines are followed. The version control tools also help in ensuring periodic code reviews by the Team Leads and the Managers, and ensures proper code maintainability. After the development and unit testing by the developers the builds are forwarded to the testing team for further end to end testing.

Upon receiving the builds the QA team strictly adheres to the every step in Software Testing Life Cycle which are: Requirement Analysis, Test Planning, Test Case Development, Environment Setup, Test Execution and Test Cycle Closure.

It ensures smooth end to end testing of the builds, any issues observed are discussed and resolved with the development team.

Builds are passed through the Jenkins pipeline where after integrating changes into the builds, they are tested and deployed in the Artifactory.

The builds then will be taken by the RHL Team from the Artifactory where the developed software will be evaluated and user testing will be performed.

The documentations should be prepared at every stage from Technical Design Documentation, API Documentation to User Manual Documentation, in order for smooth transition and usage by users.
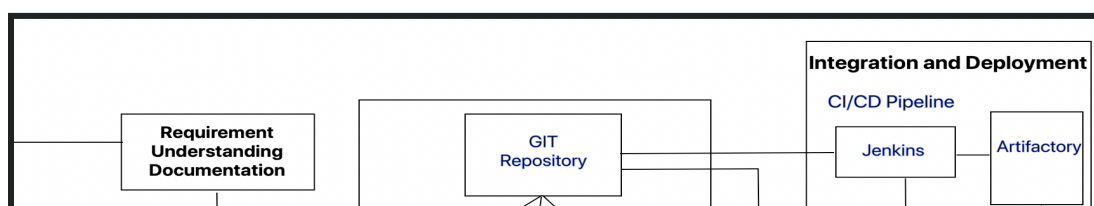
7. Project Execution Plan

7.1 Project Execution Approach

Agile methodology will be followed for Project Execution to allow for rapid and flexible response to change, and as a result.

The process of executing an Agile project have following advantages:

- Iterative development: Agile projects are divided into short iterations, typically lasting one to four weeks, during which specific goals are accomplished and deliverables are produced.

Each iteration builds upon the previous one, and the project evolves and adapts as it progresses.

- Incremental delivery: Agile projects deliver functionality in small increments, rather than all at once at the end of the project. This allows for early and frequent feedback, and enables the project team to make adjustments and course corrections as needed.

- Self-organizing teams: Agile teams are typically self-organizing, meaning that they have the autonomy to determine how best to achieve their goals within the constraints of the project. This allows for greater flexibility and responsiveness to change.

- Collaborative planning: Agile methodologies place a strong emphasis on collaboration and communication, and as a result, the planning process is typically a highly collaborative one. The project team works together to identify goals, prioritize work, and create a plan for achieving those goals.

  Overall, the goal of execution in Agile methodologies is to deliver value to the customer as quickly as possible, while remaining flexible and responsive to change.

7.2 Agile Ceremonies

Following Agile ceremonies will be followed for timely, quality deliveries.

- Sprint Planning: Planning ceremonies, such as sprint planning meetings, help the team identify and prioritize work for the upcoming iteration.

- Sprint Review: Review ceremonies, such as sprint review meetings, provide an opportunity for the team to demonstrate the work they have completed and solicit feedback from stakeholders.

- Sprint Retrospective: Retrospective meetings allow the team to reflect on their work and identify ways to improve their process in the future.

- Sprint Stand-up: Stand-up meetings, also known as daily scrums, are short, daily meetings in which team members give a brief update on their progress and any obstacles they are facing.

- Sprint Backlog grooming: Backlog grooming meetings, also known as backlog refinement meetings, are held to review and update the product backlog, which is a list of all the work that needs to be done on a project.

Overall, Agile ceremonies are an important part of the Agile process, as they help the team stay aligned, track progress, and continuously improve.

8. Timelines

Project Manager Gantt Chart	Tasks/Activities		Est. Working Days
1	**Requirements Analysis**		**7**
1.1	Complete Requirements Gathering		
1.2	Requirements Analysis Documentation		
2	**Design**		**15**
2.1	Review Screen Designs and Standard Process Flow		
2.2	Modules Fields Review with RHL Team		
2.3	Dashboard Design Review with RHL Team		
3	**Development**		**55**
3.1	Database Implementation as per finalized Designs		

3.2	SAP Integration		
3.3	UI Development and Modifications as per finalized Designs		
3.4	API Development		
3.5	Third Party Integration: Microsoft Shared Drive		
3.6	Technical Documentation		
4	**Test**		**10**
4.1	Complete Function and Integration Test		
4.2	Complete Regression Test		
4.4	Complete User Acceptance Test	**End User Testing**	
5	**Deployment**		**5**
5.1	Complete Deployment		
5.2	Complete User Training		
5.3	Complete Support		
5.4	Implementation and Deployment Completed		
	Final User Review and End User Testing		
6	**Operations & Maintenance**		**5**
6.1	Complete Operations Activities		
6.2	Complete Maintenance Activities		
6.3	Operations & Maintenance Completed		
7	**Go-Live**		**5**
7.1	Complete Archive		
7.2	Complete Disposal		
7.3	Retirement Completed		
8	**Project Completed**		**100**

9. Project Cost Breakdown

In progress