Solution Design Document for ODDGPP Document Monitoring Tool

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Chapter 1: Introduction

The Technical Education and Skills Development Authority (TESDA) plays a crucial role in shaping the Philippine workforce by managing a wide range of programs, policies, and administrative functions. As part of its mission to deliver high-quality, accessible, and efficient Technical and Vocational Education and Training (TVET) programs, TESDA continuously seeks to enhance its operational efficiency and service delivery.

However, many of TESDA's existing processes rely on manual and paper-based systems. These traditional methods often result in inefficiencies such as delayed document retrieval, version conflicts, and excessive paper consumption. Furthermore, the absence of an automated tracking system hinders transparency, accountability, and timely decision-making within the organization.

To address these challenges and align with the TESDABest 8-Point Agenda and Knowledge Management Roadmap, TESDA recognizes the importance of adopting digital solutions to improve workflow efficiency and institutional performance. This solutions design documentation presents the initiative to develop a Document Monitoring Tool (DMT), a platform designed to automate document routing, tracking, and reporting to modernize TESDA-ODDGPP's document management process.

Chapter 2: Problem

The main problem identified is the inefficiency in document tracking within TESDA's current system. The organization relies heavily on manual methods such as printed documents, emails, and spreadsheets to manage, route, and monitor the status of official documents.

This traditional approach leads to several issues, including:

- Difficulty in determining the current status or location of documents.
- Increased risk of document misplacement or loss.
- Time-consuming retrieval and verification processes.
- Limited transparency and accountability in document routing and approvals.
- Version conflicts and lack of centralized data for monitoring.

These problems collectively hinder TESDA's ability to deliver timely, seamless, and data-driven administrative services.

Chapter 3: Solution

The proposed solution is the development and implementation of a Document Monitoring Tool (DMT), a digital platform that automates the tracking and monitoring of documents across TESDA Policies and Planning Cluster.

This platform will enable users to:

- Track the progress and current status of each document in real time.
- Automate routing and version control to minimize manual errors.
- Provide transparent and accessible reporting for document approvals and movement.
- Enhance accountability and institutional efficiency through data-driven insights.

By adopting this platform, TESDA will foster a culture of transparency, efficiency, and continuous improvement. The DMT will not only streamline document management processes but will also strengthen knowledge-sharing and operational performance supporting TESDA's goal of building a Magaling at Makabagong TVET para sa Bagong Pilipinas.

Chapter 4: Objectives

Chapter 4.1: General Objective

The main objective of this project is to design and implement a Document Monitoring Tool (DMT) that will streamline document tracking, routing, and reporting processes within the Technical Education and Skills Development Authority (TESDA) Office of the Deputy Director General for Policies and Planning (ODDGPP).

Chapter 4.2: Specific Objectives

1. **To automate document routing and tracking** in order to minimize delays and manual interventions.

2. **To improve transparency and accountability** in the handling and approval of official documents.

3. **To establish real-time monitoring and reporting features** that provide up-to-date information on document progress and status.

4. **To reduce paper-based workflows** and promote sustainable digital practices within the organization.

5. **To enhance knowledge management and data accessibility** by integrating document tracking into a centralized and efficient system.

6. **To support TESDA's digital transformation goals** as outlined in the TESDABest 8-Point Agenda and Knowledge Management Roadmap.

By achieving these objectives, the project aims to significantly improve institutional efficiency and ensure faster, more reliable administrative processes.

Chapter 5: Significance of the Document Monitoring Tool

The implementation of the Document Monitoring Tool (DMT) carries great significance not only for TESDA employees, but also for its stakeholders, and the public it serves.

For TESDA-ODDG-PP

The platform provides an innovative approach to managing official documents through digital automation. It reduces manual workload, minimizes document loss, and ensures faster document processing and approval. This improvement contributes directly to TESDA's operational efficiency and service excellence.

For Employees

Staff and personnel will experience a more organized and transparent document flow. The DMT enables easy access to document status updates, reducing confusion and redundant follow-ups. It also enhances collaboration among departments by providing a unified digital workspace for document management.

For Stakeholders

The project ensures that policies, reports, and requests are processed in a timely and accurate manner. This transparency builds trust and accountability between TESDA and its external stakeholders, including partner institutions and the general public.

For the Government and the Public

By modernizing its internal processes, TESDA contributes to the broader digital transformation agenda of the Philippine government. The initiative promotes good governance through transparency, efficiency, and sustainability aligning with the national vision of a Bagong Pilipinas.

Chapter 6: System Scopes

This chapter defines the overall scope of the Document Monitoring Tool (DMT). It describes the primary features and functionalities that the system will provide to address the existing issues in the TESDA-ODDGPP document management process.

The scope focuses on three major components, the Document Handling, Tracking of Documents, and Progress Notification, each designed to improve efficiency, transparency, and real-time monitoring of document-related workflows within the organization.

Chapter 6.1: Document Handling

The Document Handling module covers the process of uploading, categorizing, and managing documents within the document monitoring tool. This component ensures that all documents are properly stored and accessible in a centralized digital repository.

Key functionalities include:

- **Digital Uploading and Storage** where users can upload digital copies of memoranda, reports, policies, and other official documents to the system.

- **Categorization and Tagging** where each document can be categorized by type, cluster, or department for easier retrieval and organization.

- **Version Control** where the system maintains a record of document revisions to prevent version conflicts and ensure that users always access the most recent and approved copy.

- **Access Control** where authorized users are granted access based on their role or department, ensuring security and confidentiality of sensitive documents.

Through this feature, TESDA reduces dependency on printed files and manual filing systems, enabling a more efficient and environment-friendly document management process.

Chapter 6.2:Tracking of document

The Tracking of Document module is the core feature of the Document Monitoring Tool. It provides users with real-time visibility into the movement and status of documents throughout their lifecycle from submission to approval.

Key functionalities include:

- **Document Routing** automates the flow of documents between departments or personnel based on pre-defined workflows.

- **Status Monitoring** displays the current status of each document

    - **Pending** – Indicates that the document is awaiting action or assessment from the designated user currently assigned to the workflow.

    - **For Discussion** – Assigned to documents requiring further deliberation/explanation. This status is used when the Deputy Director General (DDG) requests additional clarification or more detailed information prior to approval.

    - **Remanded** – Applied to documents that have been reviewed but not approved. Such documents are returned to the originating office or preparer for necessary adjustments or compliance actions.

    - **Approved** – Signifies that the document has successfully undergone final evaluation and approval. This status authorizes the ODDGPP personnel to proceed with digital signing on behalf of the DDG.

    - **For Revision** – Designated for documents that were disapproved by pre-approvers. These documents require modification or correction before being resubmitted for further review.

    - **Forwarded/Endorsed** – This status indicates that the document has been routed by an admin from one office to another.

- **Audit Trail** records all actions performed on each document, including timestamps and responsible personnel, for accountability and transparency.

- **Search and Filter Options** allows users to quickly locate specific documents based on tracking number, status, or date.

This tracking capability helps eliminate delays caused by misplaced or unmonitored documents, ensuring that every record can be efficiently located and monitored at any time.

Chapter 6.3: Progress Notification

The Progress Notification feature enhances communication and awareness across the organization by providing automated updates regarding the status and movement of documents.

Key functionalities include:

- **Real-Time Alerts** where users receive instant notifications when documents are updated, reviewed, or approved.

- **Email or System Notifications** where the system can send alerts through integrated channels to inform concerned personnel about document progress.

- **Activity Summary** where a dashboard summarizes recent document activities, helping users monitor their pending and completed tasks.

- **Deadline Reminders** where notifications are triggered when deadlines or response times are approaching, promoting timely action and accountability.

This feature ensures that users remain informed and proactive, reducing processing delays and supporting TESDA-ODDGPP's goal of achieving a transparent and responsive workflow system.

Chapter 7: System Limitations

While the Document Monitoring Tool (DMT) offers significant improvements in document tracking, handling, and notification, it also has certain limitations that may affect its performance, accessibility, and scope of implementation. These limitations identify the system's current boundaries and areas for potential future enhancement.

Chapter 7.1: Users Limitations

The system's functionality depends on the users' digital literacy and adherence to established procedures. Users with limited technical knowledge may require training to fully utilize the system's features such as document uploading, routing, and monitoring.

Additionally, the system can only perform efficiently when users actively update the document status or properly encode information. Inaccurate or incomplete input may affect the accuracy of reports and overall system reliability.

Chapter 7.2: Resource Limitations

The system's performance is influenced by the availability and capacity of hardware and network infrastructure. Limited server storage, unstable internet connectivity, or outdated computer equipment may result in slower response times or temporary inaccessibility.

Moreover, since the project is implemented within a specific cluster or department, its scalability may initially be restricted. Expanding the system across other TESDA clusters may require additional resources for deployment, training, and technical support.

Chapter 7.3: Access Limitations

To maintain document security and confidentiality, access to the system is restricted based on user roles and privileges. While this ensures proper authorization, it may also limit certain users from viewing or editing specific documents that fall outside their assigned scope.

Furthermore, access is dependent on network availability. Offline access is not supported, meaning users must have an active internet connection to use the system and view real-time updates.

Chapter: 8 User Scope

The Document Monitoring Tool (DMT) is designed to support multiple user types, each with specific levels of access and responsibilities. To maintain efficiency, accountability, and data confidentiality, the system employs a role-based access control model. This ensures that users can only perform actions appropriate to their assigned roles, preventing unauthorized modifications or file access.

The system defines five user roles such as Super Admin, Office Head, Office OIC, Office Admin, and Viewer. Each role plays a unique part in the document tracking workflow, ranging from system configuration to document approval and viewing.

Chapter 8.1: User Hierarchy

The authority structure of the system is based on approval and management responsibilities. The Super Admin serves as the global controller of the system, followed by internal office-based roles responsible for document processing and oversight.

Hierarchy Flow:

```
Super Admin

 PPC Upper Office
 ├─ DDG
 │    └─ Senior TESDS
 │         └─ EA II, TESDS II
 │              └─ PP Admin
 PPC Lower Office
 ├─ Executive Director
 │    └─ Assistant Executive Director
 │         └─ Executive Office Admin
 Focal Office
 ├─ Division Chief
      └─ Division Admin
```

- The **Super Admin** oversees the entire platform.
- The **DDG** holds the highest approving authority within each office.

- The **Senior TESDS** will be the last to review the documents before submitting it to **DDG**.

- The **EA II, TESDS II** acts as the preliminary reviewer before escalation to **Senior TESDS**.

- The **PP Admin** is the first layer of the upper PPC Office and responsible for routing the documents.

- The **Executive Director** will review and sign the documents before endorsing to the PPC Upper Office.

- The **Assistant Executive Director** is responsible for preapproval before submitting the documents to the Executive Director.

- The **Executive Office Admin** second layer of the lower office and responsible for routing the document.

- The **Division Chief** is responsible for preapproval before submitting the documents to the **Assistant Executive Director**.

- The **Division Admin** is the first to upload documents in the DMT after the approval of the **Division Chief**.

Chapter 8.2: User Role Descriptions

User Role	Description
Super Admin	Holds full control over the entire platform. Responsible for configuring email notifications, creating user accounts (including Office Heads), and managing overall system settings, menu layout, and access rules.
DDG	Holds the highest approving authority within each office. Responsible for the final approval of documents and may create Office OIC accounts when necessary.
Senior TESDS	Acts as the last reviewer of documents before submission to the DDG. Ensures that documents meet all standards and requirements prior to final approval.
EA II, TESDS II	Serves as the preliminary reviewer of documents. Conducts pre-approval checks before forwarding documents to Senior TESDS for final review.
PP Admin	Functions as the first layer of the Upper PPC Office. Responsible for routing documents to the appropriate reviewers within the workflow.
Executive Director (ED)	Head of the PPC Lower Office. Reviews and signs documents before endorsing them to the Upper PPC Office.
Assistant Executive	Second-highest approving authority in the PPC Lower Office. Responsible for pre-approving documents before they reach the Executive Director for final approval.

Director (AED)	
Executive Office Admin	Acts as the second layer of the PPC Lower Office. Responsible for routing documents within the office.
Division Chief	Responsible for pre-approving documents before submission to the Assistant Executive Director. Ensures documents meet the initial review standards.
Division Admin	First to upload documents into the Document Monitoring Tool (DMT) after approval by the Division Chief.
Viewer	Has read-only access to document details and progress. Cannot approve, upload, route, or modify documents. Can view metadata but cannot access or download attached files, even if password-protected.

Chapter 8.3: User Permissions

Permission / Function	Super Admin	DDG	Senior TESDS	EA II, TESDS II	PP Admin	Executive Director	Assistant Executive Director	Executive Office Admin	Division Chief	Division Admin
Configure Email Notifications	Yes	No	No	No	No	No	No	No	No	No
Create User Accounts	All Users	All Users	All Users	All Users	All Users	No	No	No	No	No
Upload Documents	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Route / Forward Documents	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Pre-Approve Documents	Yes	No	Yes	Yes	No	Yes	Yes	Yes	Yes	No
Final Approval of Documents	Yes	Yes	Yes	No	No	Yes	Yes	No	Yes	No
View Document Metadata (Details/Status)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Access or Download Files	All Files	All Files	All Files	All Files	All Files	All Files Under Assigned Office	All Files Under Assigned Office	All Files		All Files if upper office, Office Assigned files if lower office
Modify or Delete Records	Yes	No	No	No	No	No	No	No		No

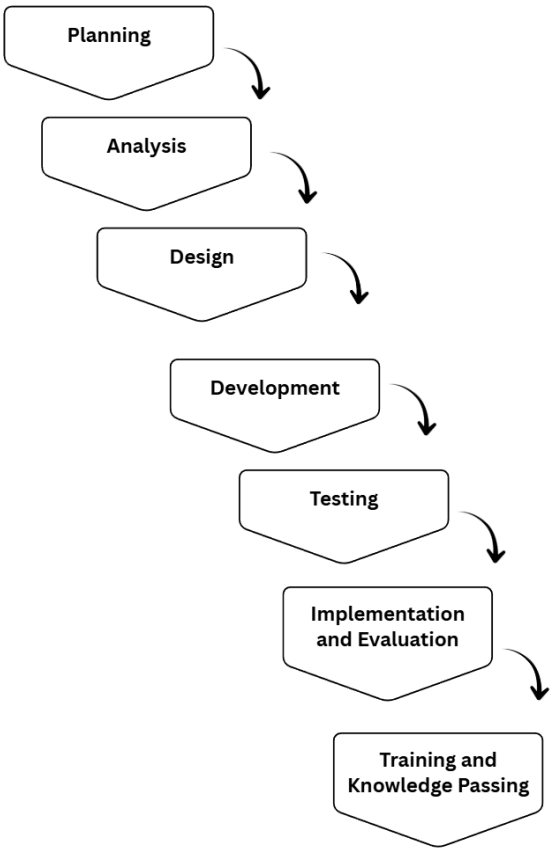
Chapter 9: Methodology

This chapter outlines the methodologies, tools, and processes used in developing the Document Monitoring Tool (DMT). The approach follows a structured methodology to ensure that the system effectively addresses the problems in document tracking and management within TESDA. The methodology is based on systematic planning, design, development, testing, and evaluation.

Chapter 9.1: System Development Life Cycle

The project followed the System Development Life Cycle (SDLC) framework using the Waterfall Model which consists of sequential stages, each dependent on the completion of the previous one. This model ensures organized progress, proper documentation, and quality assurance throughout development.

The stages include:



1. **Planning:**
   The project began with gathering information about TESDA-ODDGPP's existing document handling procedures, identifying challenges, and defining the project's objectives and scope.

2. **Analysis:**
   During this phase, data on current workflows were analyzed to understand user requirements. Key pain points were identified, including delayed tracking, manual routing, and lack of document visibility.

3. **Design:**
   The tool's structure, database schema, and user interface were designed to ensure intuitive navigation and efficient functionality. The design emphasized ease of use, role-based access control, and real-time document tracking.

4. **Development:**
   The actual coding of the system will be carried out using web technologies such as HTML, CSS, JavaScript, PHP, and MySQL. Tailwind CSS was used for the front-end styling to maintain a clean and responsive design.

5. **Testing:**
   The system will be tested to verify its functionality, reliability, and compatibility. Test cases include document uploads, routing, progress tracking, and notification delivery. Bugs and inconsistencies were corrected before deployment.

6. **Implementation and Evaluation:**
   The system will be deployed in a controlled environment within the organization. Feedback from end users will be collected and used to refine the system's features and usability.

7. **Training and Knowledge Transfer:**
   After the deployment and completion of UAT, training will be conducted for the intended users. This will help familiarize the system, understand its automation features, and appreciate the benefits of the tool.

Chapter 9.2: Technology Stack

The development of the Document Monitoring Tool will utilize the following tools and technologies:

Category	Technology/Tool	Purpose
Programming Language	PHP, JavaScript	Backend and frontend development
Framework	Laravel	PHP MVC Controller
Database	MySQL	Data storage and retrieval

Frontend Framework	Tailwind CSS	User interface design and responsiveness
Web Server	Apache	Hosting and running the system
IDE	Visual Studio Code	Coding and debugging environment

Chapter 9.3: System Architecture

The system follows a client-server architecture, where users interact with the web-based interface while the server processes requests and updates the database.

- **Client Side**
  Users access the system through a web browser, where they can upload documents, track status, and view progress (based on their assigned role).

- **Server Side**
  The server manages authentication, document routing, file security, and notification triggers.

- **Database Layer**
  Stores document records, forwarding history, user accounts, roles, and modification logs. It also handles file storage directories and password-protected confidential files.

This layered architecture ensures scalability, security, and efficient handling of concurrent requests.

Chapter 9.4: Testing and Evaluation

Testing will be carried out to ensure that the system performed according to requirements and was free from critical issues. The evaluation process included:

- **Unit Testing** – Verification of individual functions and modules such as upload, routing, and progress tracking.

- **User Acceptance Testing (UAT)** – TESDA staff will test the system in real workflows to evaluate usability, reliability, and performance.

The results will confirm that the system improved visibility, reduced manual delays, and enhanced office communication through automated notifications.

Chapter 9.5: Summary

The methodology adopted a structured SDLC approach using the Waterfall Model. Through careful planning, detailed analysis, and rigorous testing, the system will be successfully implemented. The chosen technology stack will provide a balance of reliability, scalability, and ease of use. Ultimately, the methodology will ensure that the Document Monitoring Tool achieves its goal of streamlining TESDA-ODDGPP's document tracking and management.

Chapter 10: Database Design

The Database Design defines how all information within the Document Monitoring Tool (DMT) is structured, stored, and related. It ensures accurate data management, integrity, and retrieval efficiency throughout the system's operation. The database follows a relational structure, allowing efficient tracking of document details, office origins, forwarding history, and modification logs.

Chapter 10.1: Database Overview

The system's database is designed to record each document's lifecycle from its reception, encoding of details, forwarding, and action updates while maintaining transparency and traceability.

Key data entities include:

- **Documents**
- **Offices**
- **Files**
- **Notification**
- **Modifications**
- **Users**

Chapter 10.2: Tables and Fields

Documents Table
Stores all details related to received and processed documents.

Field Name	Data Type	Description

document_id	INT (PK)	Unique identifier for each document.
document_control_number	INT	This will be the base control number of the document.
date_received	DATE	The date the document was received.
particular	TEXT	Subject, issue, or concern of the document.
office_origin	VARCHAR(100)	The office or department that originated the document.
user_id	INT	User id of the uploader
document_form	VARCHAR(50)	Form type or classification of the document.
document_type	VARCHAR(50)	The specific type or category of document.
date_of_document	DATE	The actual date stated in the document.
signatory	VARCHAR(100)	The name of the document's signatory.
date_forwarded	DATE	The date the document was forwarded to another office.
destination_office	VARCHAR(100)	The office where the document was sent.
involved_office	VARCHAR(100)	List of involved offices. This will be used to grant them access to the document and its versions. This will be an array of offices that is involved in the document.
action_taken	TEXT	The actions performed or desired outcome regarding the document.
status	VARCHAR(50)	The current status of the document.
confidentiality	VARCHAR(50)	The Confidentiality Level of the document
created_at	TIMESTAMP	The time the record was created.
updated_at	TIMESTAMP	The time the record was last updated.
document_due_date	DATE TIME	Due Date time.

Offices Table

Maintains a list of all offices involved in the document workflow.

Field Name	Data Type	Description
office_id	INT (PK)	Unique identifier for each office.
office_name	VARCHAR(100)	The name of the office.
office_code	VARCHAR(20)	A short code used to identify the office.
created_at	TIMESTAMP	Date and time of record creation.

Files Table

Stores directory paths and security credentials for uploaded or linked document files.

Field Name	Data Type	Description
file_id	INT (PK)	Unique identifier for each file record.
document_id	INT (FK)	Links the file to its associated document.
file_path	VARCHAR(255)	Directory path or URL where the file is stored.
file_password	VARCHAR(255)	Encrypted password for file access.
uploading_office	VARCHAR(255)	Office the the uploader
uploaded_by	INT (FK)	User ID of the uploader.
uploaded_at	TIMESTAMP	Date and time the file was uploaded.

Modification Table

Tracks all changes made to document records for accountability and audit purposes.

Field Name	Data Type	Description
modification_id	INT (PK)	Unique identifier for each modification.
document_id	INT (FK)	References to the document that was modified.
modified_by	INT (FK)	User ID of the person who made the modification.
modification_type	VARCHAR(50)	The type of change (e.g., Edit, Delete, Update).
old_value	TEXT	The previous data before modification.
new_value	TEXT	The new data after modification.
modified_at	TIMESTAMP	Date and time of modification.

Users Table

Holds account details of system users and their access roles.

Field Name	Data Type	Description
user_id	INT (PK)	Unique identifier for each user.
username	VARCHAR(50)	Login username.
password	VARCHAR(255)	Encrypted password.
full_name	VARCHAR(100)	Full name of the user.
role	VARCHAR(50)	Defines user level (e.g., Admin, Staff).
created_at	TIMESTAMP	Account creation date and time.
last_login	TIMESTAMP	The user’s most recent login timestamp.
office_id	INT(FK)	Id of the assigned office to the user.

Notification Table

Handles automated alerts and updates when document progress changes.

Field Name	Type	Description
id	INT (PK)	Unique notification ID.
document_id	INT (FK)	Reference to the affected document.
user_id	INT (FK)	The user who received the notification.
message	TEXT	Notification message content.
is_read	BOOLEAN	Marks if the user has read the notification.
created_at	TIMESTAMP	Date and time of notification creation.

Chapter 11: Development Plan

This chapter presents the structured roadmap for implementing the Document Monitoring Tool (DMT). It outlines the process flows that guide system development, ensuring that each function aligns with TESDA's document lifecycle from submission to approval and archiving. These process flows serve as the foundation for module creation, system routing logic, and user interaction behavior.

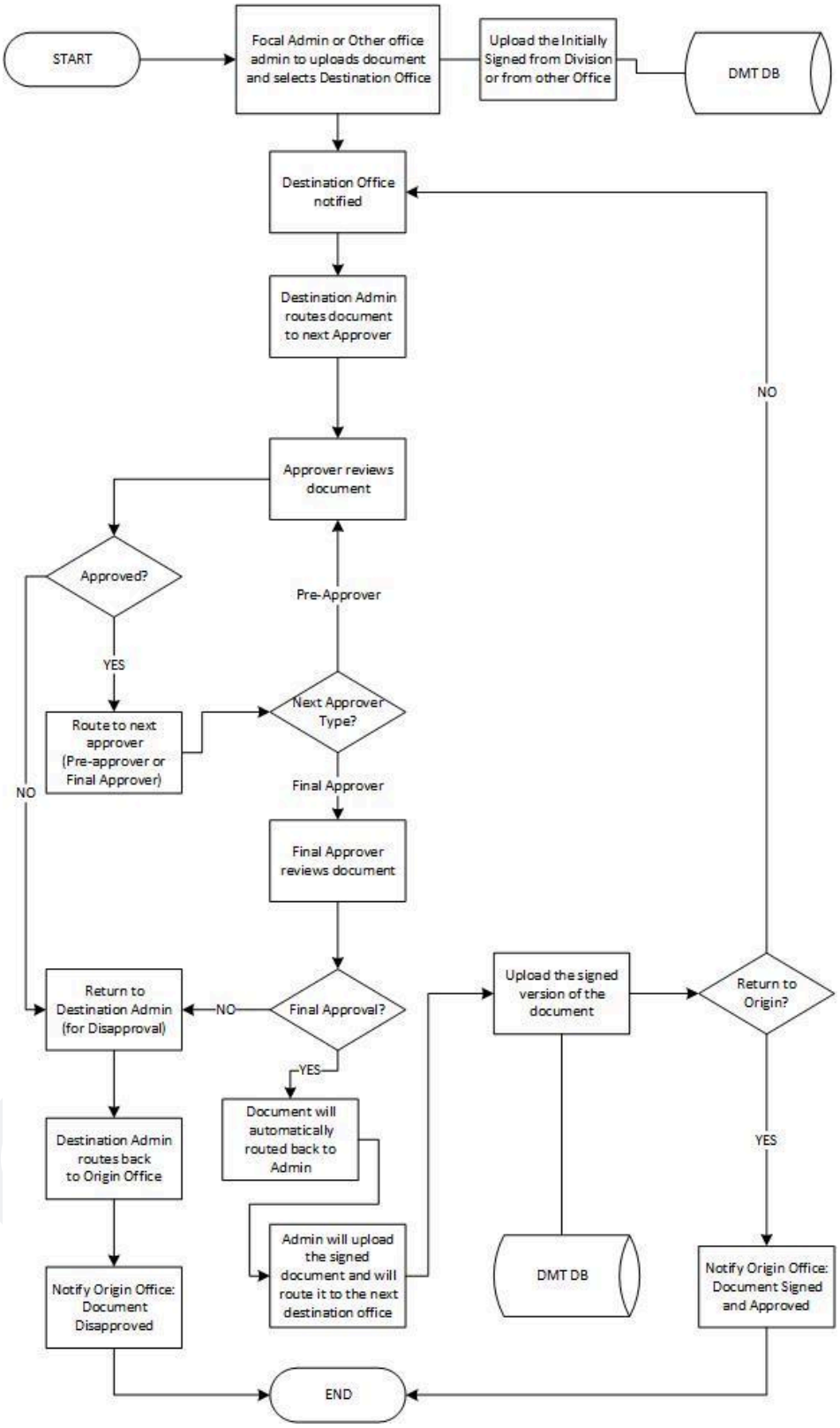
Chapter 11.1: Process Flow

The process flow diagrams serve as the backbone of the development phase. Each diagram illustrates how documents move between users and system modules. These will be used as reference during development to ensure feature consistency and workflow accuracy across all user roles.

Each stage represents a transition between physical or digital interaction points within the organization.

Chapter 11.1.1: Simplified Process Flow

This Flow chart will cover all offices. This will be the general process flow of DMT.


START
Focal Admin or Other office admin to uploads document and selects Destination Office
Upload the Initially Signed from Division or from other Office
DMT DB
Destination Office notified
Destination Admin routes document to next Approver
Approver reviews document
Approved?
NO
YES
Pre-Approver
Next Approver Type?
Route to next approver (Pre-approver or Final Approver)
Final Approver
Final Approver reviews document
Return to Destination Admin (for Disapproval)
NO
Final Approval?
YES
Upload the signed version of the document
Return to Origin?
NO
YES
Document will automatically routed back to Admin
Destination Admin routes back to Origin Office
Admin will upload the signed document and will route it to the next destination office
DMT DB
Notify Origin Office: Document Disapproved
Notify Origin Office: Document Signed and Approved
END

Chapter 12: Wireframes

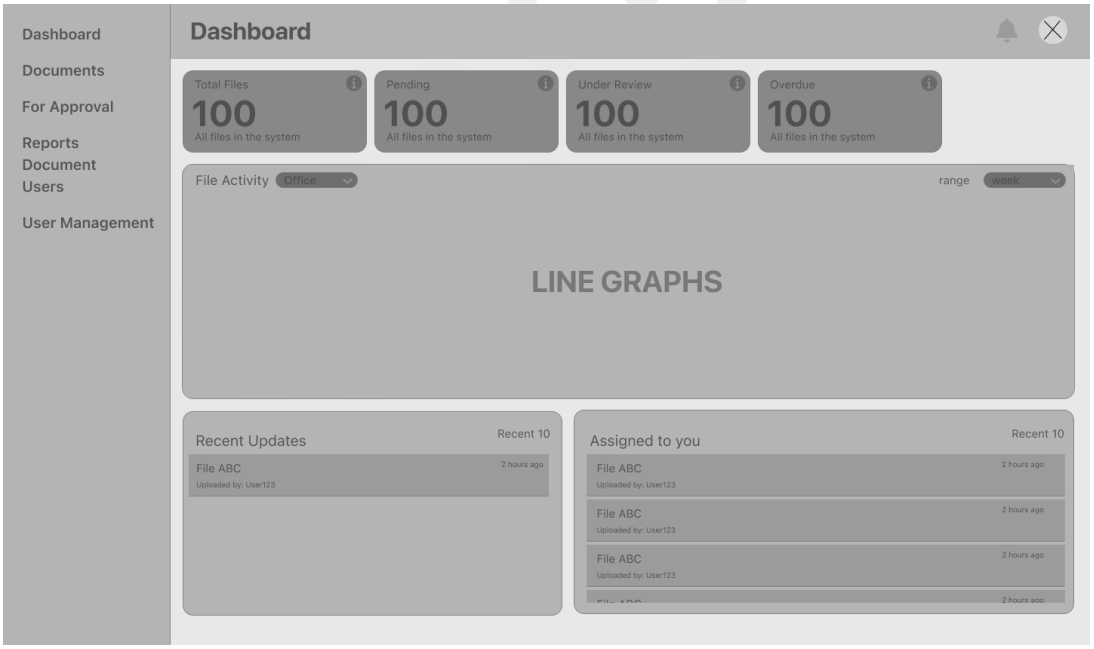
Chapter 12.1 Overview

This section presents the wireframe designs for the two primary entities in the system, the Upper Office and Lower Office. Each wireframe serves as a visual representation of the system's layout and interface flow during the design phase. Wireframes were created to define the placement of elements, navigation structure, and functional sections before the development of the actual user interface.

Chapter 12.2 Upper Office

The **Upper Office** module provides administrative and supervisory features for top-level users. Its wireframes focus on management dashboards, report generation, and user access control.

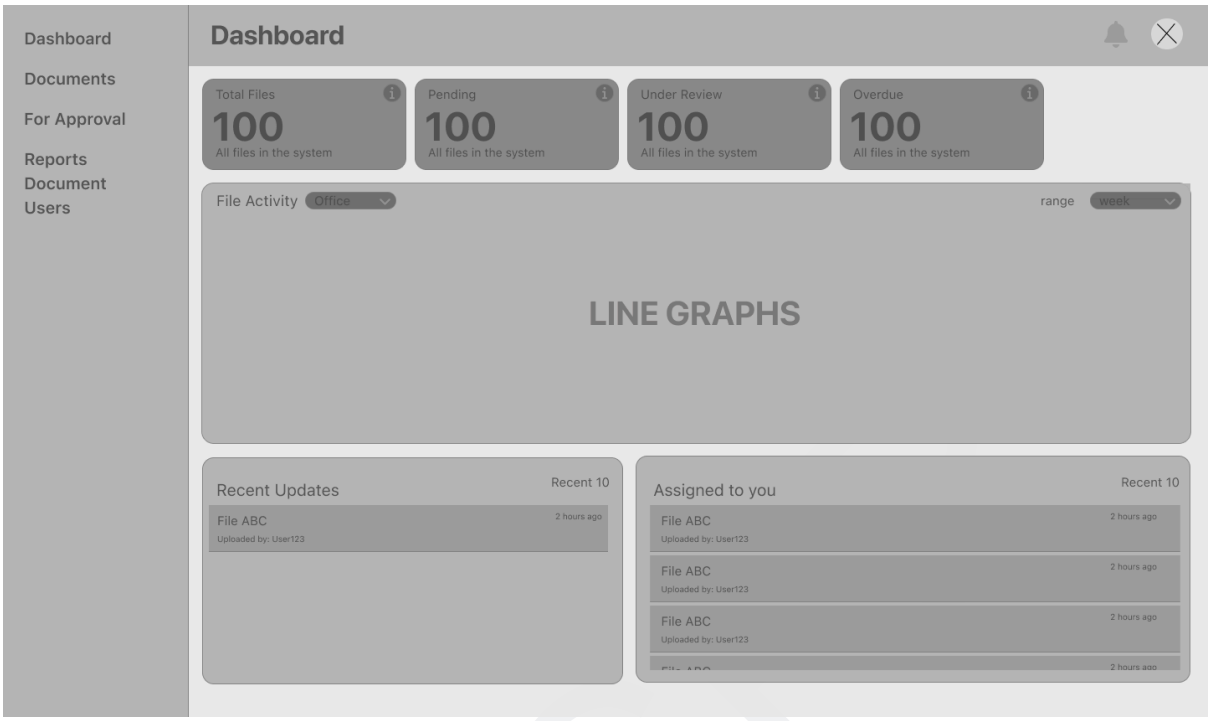
Figure 12.1. Page for Upper Office Dashboard



Chapter 12.3 Lower Office

The **Lower Office** module focuses on operational and execution-level users who handle data encoding, monitoring, and report submission. Wireframes under this section emphasize ease of use, quick data input, and record management.

Figure 12.2. Page for Lower Office Dashboard



Chapter 12.4 Reports

The wireframe for the report is the same for both the Upper and Lower Offices. The only difference is that the Upper Office can generate reports for all offices, while the Lower Office can only generate reports assigned to its office.

Figure 12.3. Page for Document Reports

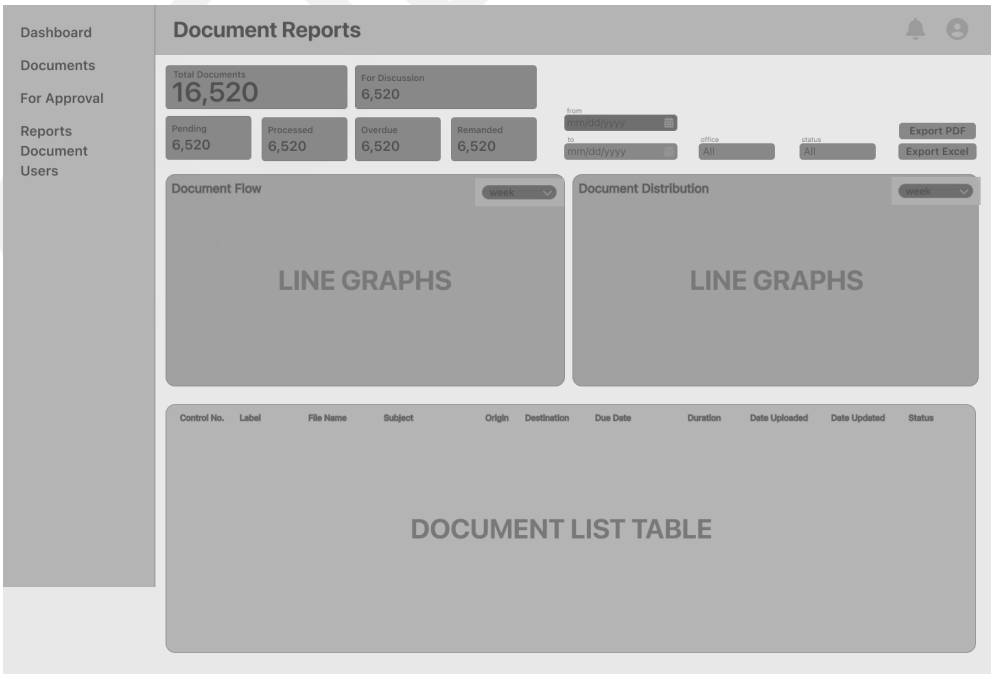
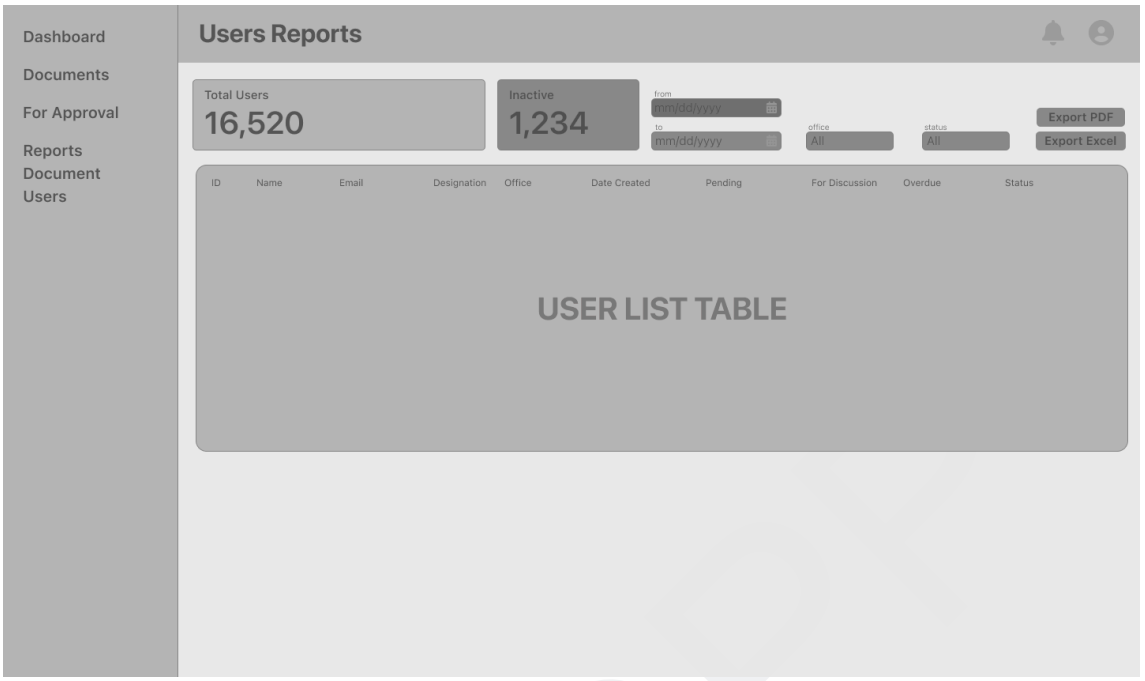


Figure 12.4. Page for User Reports



Chapter 12.5 User Management

This will be the wireframe for the User Management page. This will be only visible for Upper Office Users.

Figure 12.5. Page for User Management

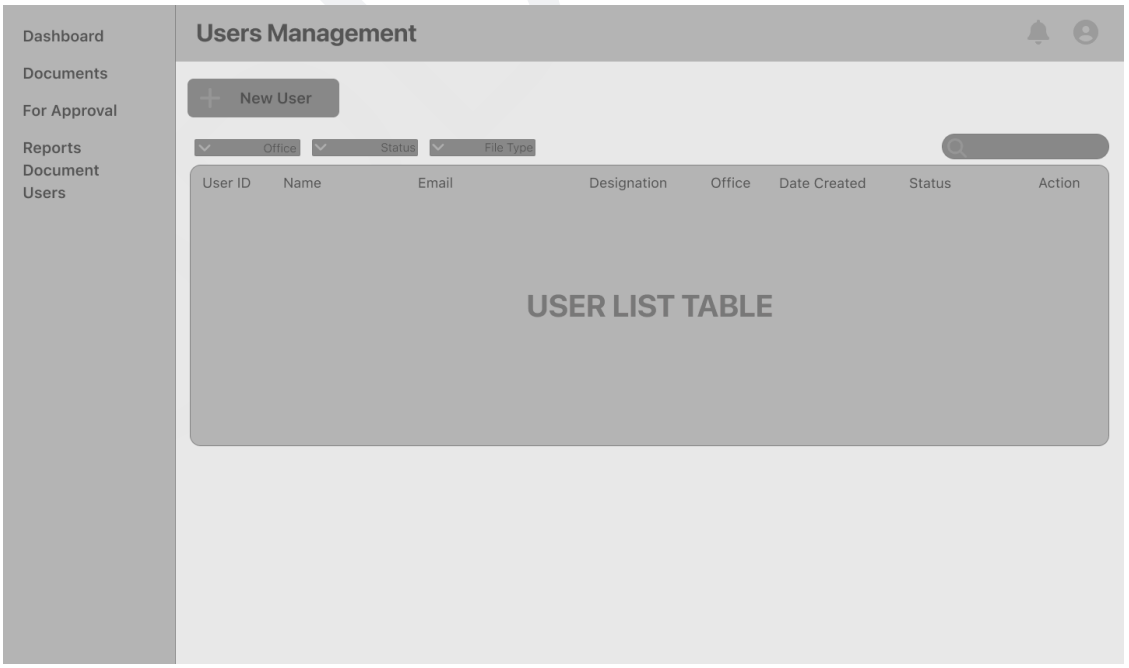
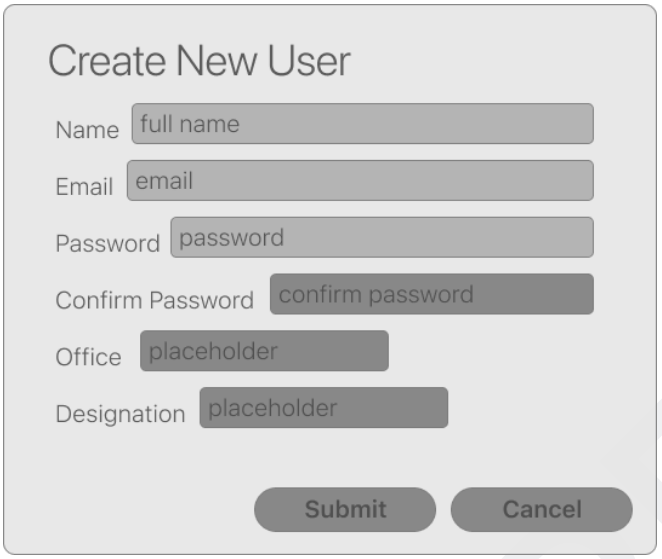


Figure 12.6. Modal for User Information



Chapter 12.6 Document

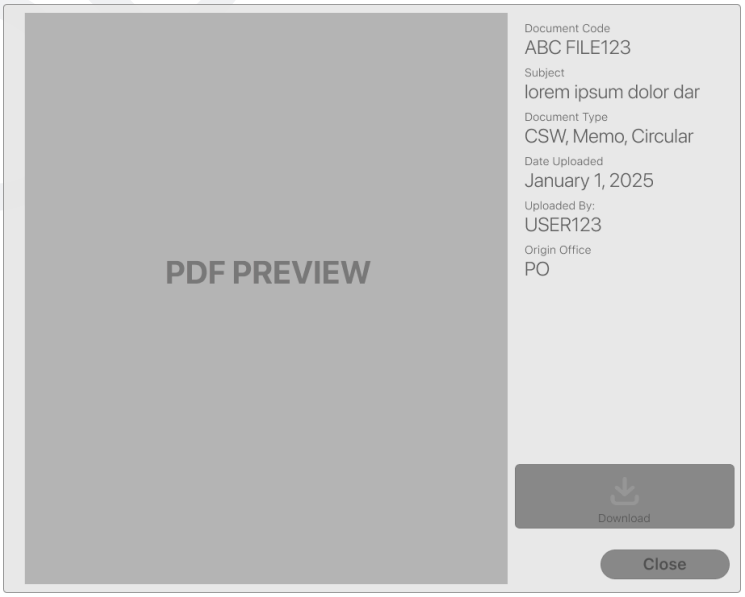
This is the wireframe for document management. There are two sections on this page. The first is **“Your Files,”** where the user can view all files assigned specifically to them. The second is **“All Files,”** which displays all files assigned to the entire office.

Figure 12.9. Page for Document Management

Figure 12.10. Modal for New Document Upload

Figure 12.11. Modal for Document Information

Figure 12.12. Modal for PDF Preview



Chapter 12.7 For Approval

This is the wireframe for the **For Approval** page. This page is only visible to users who have approval roles. either as pre-approvers or final approvers. It allows them to review, validate, and take action on documents or requests that require their authorization before proceeding to the next stage.

Figure 12.13. Page for "For Approval"

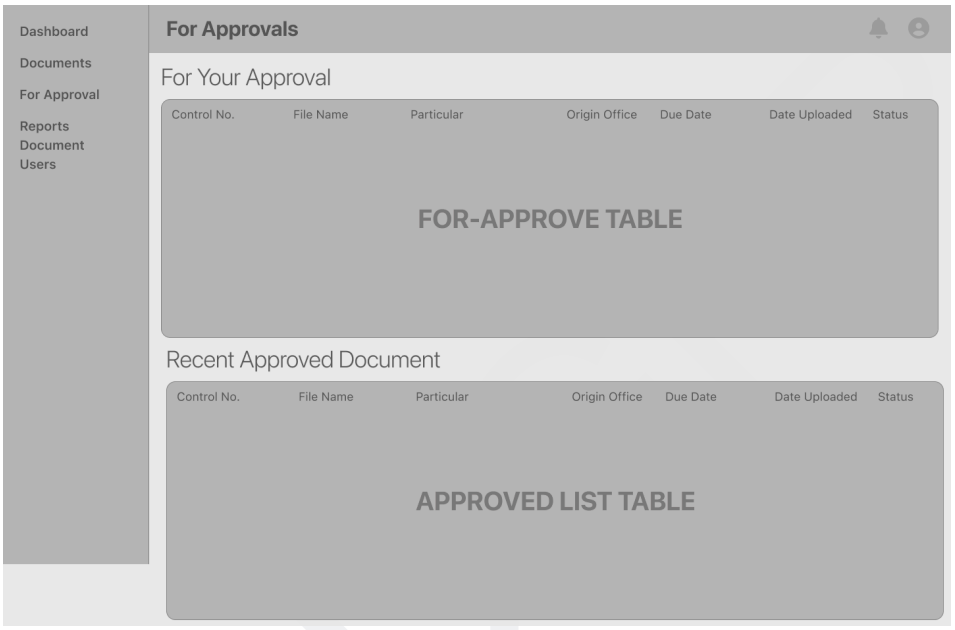


Figure 12.14. Modal for Document Info with PDF Preview

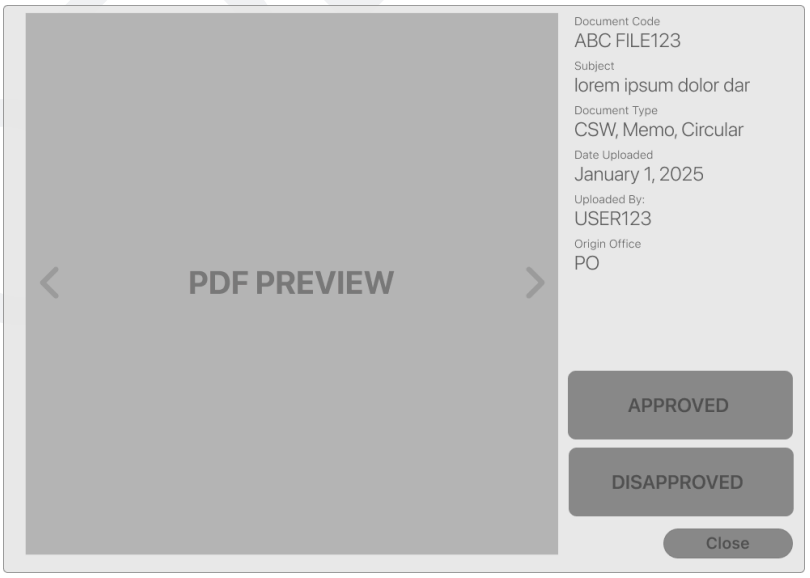


Figure 12.15. Modal for Approval Confirmation

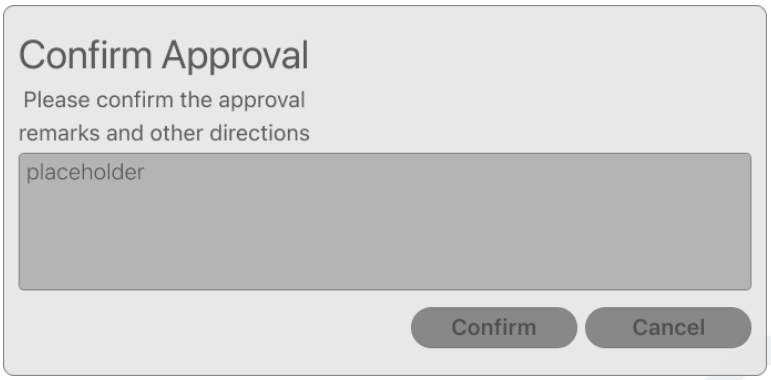
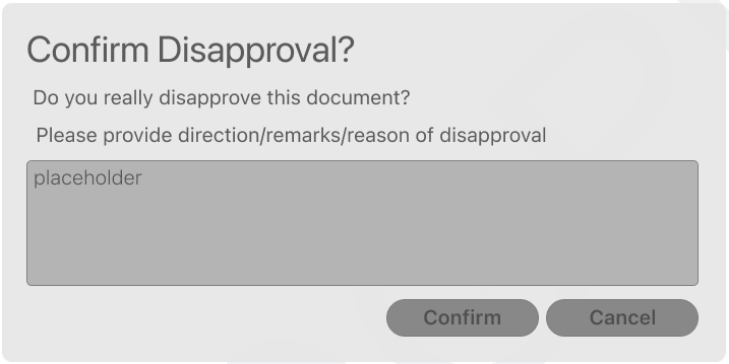


Figure 12.16. Modal for Disapproval Confirmation



Chapter 12.8 Wireframe Summary

The wireframes provide a structural foundation for the visual and functional design of the system. They ensure that each entity such as the **Upper Office** and **Lower Office** maintains clarity in navigation, usability, and interface consistency. These early visual guides serve as blueprints for developers and stakeholders before system implementation

Chapter 13: Project Timeline

This chapter presents the overall project implementation timeline for the Document Management Tool (DMT), structured following a modified waterfall methodology. The development lifecycle is divided into seven (7) key phases, each with defined deliverables and milestones. The indicative duration is twelve (12) weeks, subject to adjustment based on stakeholder feedback and system validation requirements.

Chapter 13.1 Project Timeline Overview

The table below summarizes the project phases, core activities, and expected outputs.

Phase	Duration	Key Activities	Indicative Output
Inception	Week 1–2	Requirements elicitation- Stakeholder mapping- Detailed project plan	Inception Report & Approved Workplan
Systems Design	Week 3–4	Process analysis- Data modelling- UI/UX wireframes- Security design	Solution Design Document & Prototype Demo
Development	Week 5–8	Full-stack coding- Unit tests- Integration with TESDA Single-Sign-On	Beta Version in Staging Server
Validation	Week 9	User Acceptance Testing (UAT)- Bug fixing- Performance tuning	UAT Sign-off & Release Candidate
Deployment	Week 10	Production roll-out- Data migration- Configuration documentation	Live DMT & Admin Guide
Training & Knowledge Transfer	Week 11	On-site/online training sessions- Handover of source code	Training Completion Report
Warranty Support	Week 12	- Hyper-care- Minor enhancements- Final project close-out	Project Completion Report

Chapter 13.2 Gantt Chart Representation

Below is the visual project schedule illustrating the start and end points of each phase.

Phase	W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12
Inception												
Systems Design												
Development												
Validation (UAT)												
Deployment												
Training & Knowledge Transfer												

Chapter 13.3 Critical Path and Dependencies

- Systems Design must be fully approved before Development begins.
- Development completion is required prior to UAT and Validation.
- Deployment can only proceed upon UAT sign-off.
- Training schedule must align with Deployment date to ensure operational adoption.
- Warranty Support serves as the hyper-care period to stabilize post-launch operations.

Chapter 14: Conclusion and Recommendations

Chapter 14.1 Conclusion

The development of the Document Monitoring Tool (DMT) marks a significant step toward modernizing TESDA's document tracking and routing processes. Traditional manual handling prone to delays, loss of accountability, and lack of transparency has been replaced with a structured and automated workflow designed to enhance efficiency and clarity across all participating offices.

Throughout its design and development, the system focused on real-time tracking, role-based access control, secure file storage, and automated notifications, ensuring that every document is traceable from origin to approval. The inclusion of password-protected files and access-level restrictions strengthens confidentiality, especially for sensitive communications handled by office heads and key personnel.

The Document Monitoring Tool is expected to:

- **Reduce processing delays** by eliminating redundant manual routing.
- **Strengthen accountability** through an auditable trail of approvals and modifications.
- **Improve communication across offices** via digital forwarding and status visibility.
- **Standardize document processing** through defined roles such as Origin Office Admin, OIC, Office Head, and Viewer.

Overall, the DMT lays a foundation for digital governance and data transparency, aligning TESDA with national directives on e-governance and paperless transactions.

Chapter 14.2 Recommendations

To ensure long-term sustainability and maximize adoption of the system, the following recommendations are proposed:

1. **Formalize System Usage Through Policy Integration**

   Adoption should be accompanied by an **official memorandum or internal policy**, mandating that all document transactions follow the DMT workflow to prevent parallel manual practices.

2. **Regular User Training and Orientation**

   Conduct periodic refresher training, especially for onboarding new personnel assigned as Office Admins, OICs, or Heads. A quick-start user manual or video guide may further simplify adoption.

3. **Continuous Feedback Loop for System Improvement**

   Implement an internal feedback or ticketing mechanism so users can request improvements, report bugs, or suggest new features based on real-world use.

Chapter 14.3 Final Statement

The Document Monitoring Tool is not just a software solution but a process transformation initiative. With commitment from both management and end users, the system can serve as a model framework for document transparency and accountability, paving the way for wider digital transformation efforts within TESDA and potentially other government agencies.

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