PAKISTAN ENGINEERING COUNCIL

DEPARTMENT OF COORDINATION

PEC Coordination Portal (PCP)

Proposed By

Coordination Department

PEC-HQ Islamabad

CERTIFICATION OF APPROVAL

It is to verify that the PEC Coordination Portal (PCP) may be developed by PEC IT DEPARTMENT in consultation with Coordination Department as per needs and requirements.

Focal Person Coord Dept.

Aqsa Imran

Intern/ Coord Dept.

Co-Supervision

Engr. Salman Ahmed

Assistant Registrar (Coord.)

Supervision

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Additional Registrar/HoD-Coord.

Chapter 1: Introduction

1. Brief Overview:

The PEC Coordination Portal (PCP) is a proposed online portal designed for use within the Pakistan Engineering Council (PEC). It will serve as a centralized platform for PEC secretariat to manage meetings and associated tasks related to the Governing Body, Management Committee, and General Correspondence. The PCP will emerge as a revolutionary digital solution aimed at enhancing the efficiency and effectiveness of coordination within the Council. This platform will serve as a centralized hub for managing meetings, documents, and communication among various stakeholders within the organization. By leveraging cutting-edge technology, the proposed portal will streamline workflows, improved collaboration, and facilitates informed decision-making.

2. Scope:

The scope of the PCP encompasses a range of essential features and functionalities tailored to meet the diverse needs of PEC secretaries which includes but not limited to:

i. Meeting Management:
Schedule and organize meetings within PEC. Streamlining the process of setting agendas/ working papers, inviting attendees and setting events/ meeting times (e.g. linking the Zoom).

ii. Minutes Compilation:
Facilitates the compilation of meeting minutes for accurate record-keeping. Allow to seek real time input from relevant departments to ensure transparency and comprehensive documentation.

iii. File Attachments:
Enable users to attach relevant files and documents as part of meeting record. Ensure all necessary materials are easily accessible within the portal.

iv. Printing Functionality:
Provision of printing the meeting material (agenda/ working papers, attachments minutes, and associated documents) at all stages.

v. Other:
Any other provision as may have deemed appropriate by the Council.

3. Project Background:

The PCP was conceptualized as a comprehensive digital solution to streamline the PEC processes, enhance efficiency, ensure transparency, and foster synergy within the organization. Drawing inspiration from industry best practices and the latest technological advancements, the project aims to revolutionize how PEC coordinates its operations. The portal serves as a centralized platform where stakeholders can seamlessly schedule event/ meetings, compile agendas, upload and share documents securely, and collaborate in real-time.

Throughout the project's lifecycle, a careful attention of the Council is desired to be paid in designing intuitive user interfaces and implementing robust security measures. The development team requires to follow a structured methodology, encompassing phases such as need analysis, planning, designing, developing, testing, followed by deployment and continuous maintenance.

The PCP is not merely a software solution; it represents a commitment to digital transformation and innovation within PEC. By leveraging modern technologies and best practices, the portal aims to improve decision-making, enhance transparency, and empower stakeholders to work cohesively towards the organization's objectives.

4. Proposed Methodology and software Development Cycle:

The development of the PCP follows a systematic and well-structured methodology to ensure a successful and sustainable application. The project life cycle encompasses several key phases, including:

i. **Need Analysis:**
   Thoroughly understanding the needs and challenges faced by PEC in coordination and document management.

ii. **Planning & Design:**
   Creating a detailed blueprint of the portal's architecture, user interface, and functionalities.

iii. **Testing and Quality Assurance:**
   Conducting rigorous testing to ensure the portal meets performance, security, and usability standards.

iv. **Deployment and Training:**
   Rolling out the portal to users, providing comprehensive training sessions, and offering ongoing support.

v.   Maintenance and Updates:
Continuously monitoring and improving the portal to adapt to evolving needs and technological advancements.

5. Benefits:

  i.   Efficiency
 ii.   Accuracy
iii.   Accessibility
 iv.   Transparency

6. Objectives:

  i.   Streamline Meeting Management Processes
 ii.   Enhance Document Collaboration and Accessibility
iii.   Improve Communication Between Stakeholders
 iv.   Ensure Security and Compliance
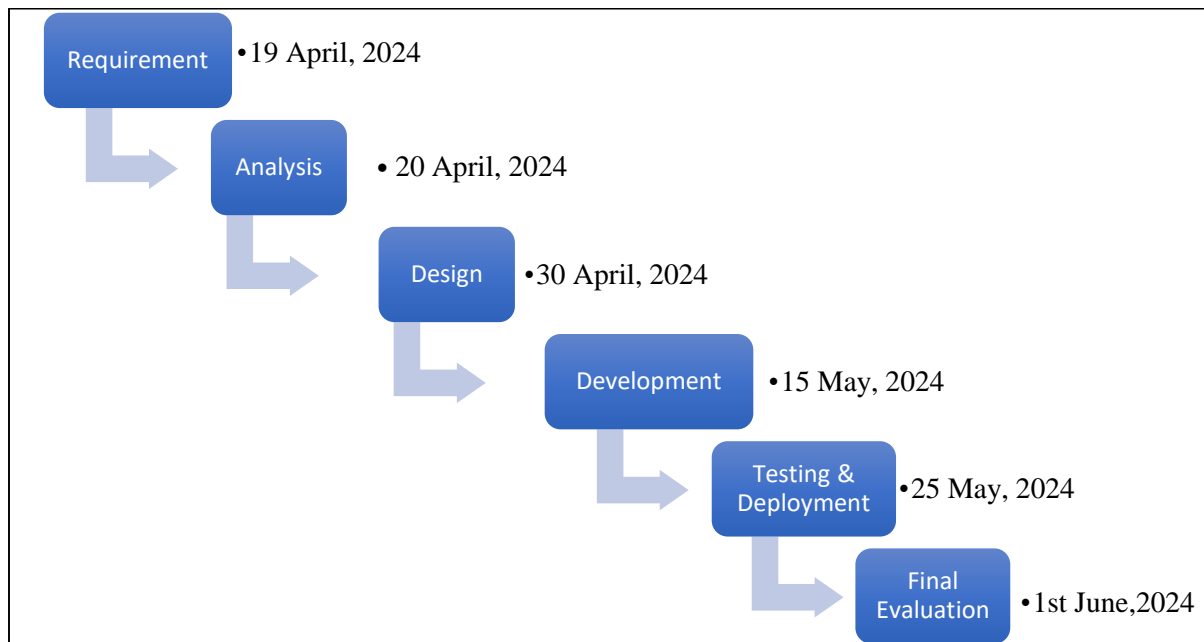
Figure 1.1: Software Development Cycle

	Tools	Version
Proposed Tools and technologies	Visual Studio	2023-2024
	XAMPP	8.2.12
	LARAVEL Framework	5.2.6
	Technology	**Versions**
	My SQL	
	Or as may deemed suitable by the development team	

Table 1.1: Proposed Tools and technologies

Chapter 2: Requirement Analysis:

1. Modules:

i. Governing Body:
Agenda: The agenda of the meeting will be uploaded by the HoD's of each department upon which will be compiled and printed by the Coordination Department.

Minutes: The minutes of the meetings will be compiled and sent to the GB member.

ii. Management Committee:
Agenda: The agenda of the meeting will be uploaded by the HoD's of each department upon which will be compiled and printed by the Coordination Department.

Minutes: The minutes of the meetings will be compiled and sent to the MC.

iii. General Correspondence:
Agenda: The respective Heads of Departments (HoDs) within each department will be notify about the agenda. Alongside this notification, the HoDs will upload the meeting agenda in the form of editable documents such as Word documents, PowerPoint presentations, Excel files, and spreadsheets. This agenda, once uploaded, will be accessible to all relevant stakeholders for review and preparation prior to the meeting. Additionally, Zoom meeting links will be provided for each scheduled meeting, ensuring seamless virtual access for participants.

Response: After delivering the notification by the department to the GB and MC, if there is a response back from the Members, or Chairman it should notify the general correspondence.

Compilation: The agenda will be compiled and will be prepared for the printing. Once the meeting is held the minute's file should be created and it will also be compile for the further printing.

iv. General Meetings:

The "General Meetings" module within the PEC Coordination Portal provides users with access to information and details regarding the general meetings held within the organization. Unlike the specific meetings of the Governing Body (GB) and Management Committee (MC), these general meetings serve as a platform for broader discussions, updates, and interactions across departments and stakeholders.

2. Functional Requirements:

i. User Authentication and Authorization:

The system should support role-based access control for different users such as HODs, Governing Body members, and Management Committee. Users should be able to authenticate securely through their credentials.

ii. Dashboard:

A dashboard providing an overview of upcoming meetings, notifications, and pending tasks. Quick access to commonly used features like creating meetings, uploading files, and accessing meeting minutes. Compilation of the minutes should be done the software.

iii. Meeting Management:

Ability for the governing body to schedule and create meetings. Notifications sent out to relevant stakeholders regarding meeting details, agenda, and timing. Facility to compile meeting notifications with details like agenda, attendees, and time.

iv. File Management:

Users should be able to upload and download files related to meetings, presentations, and minutes. Support for file versioning to keep track of document changes over time. Integration with MySQL for efficient file management and backup.

v. Minutes of Meetings:

Option for HODs and committee members to input their comments and feedback on meeting minutes. Secure storage and retrieval of meeting minutes for future reference. Ability to generate printable versions of meeting minutes with proper formatting.

vi. Collaboration Features:

Interactive features for collaborative editing and reviewing of documents. Real-time chat or discussion forums for stakeholders to communicate and discuss agenda items before meetings.

vii. Workflow Automation:

Streamlined workflows for tasks like compiling meeting notifications, uploading minutes, and printing files. Automated notifications and reminders for pending tasks and upcoming deadlines.

viii. Reporting and Analytics:

Reporting functionality to track meeting attendance, action items, and decision outcomes. Analytics dashboard for insights into meeting trends, productivity, and stakeholder engagement.

ix.   Integration and Customization:

Integration with existing systems and tools used within the organization such as email, calendar, and project management software. By implementing these requirements, the online portal for the Coordination Department will provide an efficient and centralized platform for managing meetings, documents, and communication, ultimately enhancing collaboration and decision-making across the organization.

3. Non- Functional Requirements:

Non-functional requirements are the qualities or attributes that describe how a system should behave or perform rather than what it does. Here are some non-functional requirements for the Web Portal for Coordination Department:

i.   Performance:

The system should respond to user actions promptly, with minimal latency. It should be able to handle concurrent user interactions efficiently, especially during peak usage periods. Response time for common operations like loading pages, uploading files, and sending notifications should be within acceptable limits.

ii.   Reliability:

The system should have a high level of availability, with minimal downtime for maintenance or unexpected failures. It should be able to recover gracefully from errors or crashes without losing data integrity. Data backups should be performed regularly to prevent data loss in case of hardware failures or other disasters.

iii.   Security:

The system should enforce strict access controls to ensure that only authorized users can access sensitive information. Data transmission should be encrypted to prevent unauthorized interception or tampering. Protection against common security threats like SQL injection, cross-site scripting (XSS).

iv.   Scalability:

The system architecture should be designed to scale horizontally and vertically accommodate increasing user loads and data volumes. Scalability testing should be conducted to ensure that the system can handle projected growth over time.

v. **Usability:**

The user interface should be intuitive and user-friendly, with clear navigation and consistent design patterns. Accessibility features should be implemented to ensure that the portal is usable by people with disabilities. User training and documentation should be provided to help users understand how to use the system effectively.

vi. **Compatibility:**

The system should be compatible with a wide range of web browsers and devices, including desktops, laptops. Compatibility testing should be conducted to ensure that the portal works correctly on different platforms and configurations.

vii. **Maintainability:**

The system should be designed with modularity and code reusability in mind to facilitate future enhancements and updates. Documentation should be provided to aid in system maintenance and troubleshooting. Code quality should be monitored and maintained to prevent technical debt and ensure long-term sustainability.

viii. **Performance:**

The system should be able to handle a large number of concurrent users without degradation in performance. Load testing should be conducted to determine the system's capacity and identify potential bottlenecks.

ix. **Availability:**

The system should have a high level of uptime, with scheduled maintenance windows communicated to users in advance. Redundancy and failover mechanisms should be in place to minimize downtime in case of server failures or other disruptions. By addressing these non-functional requirements, the Web Portal for Coordination Department can deliver a robust, secure, and user-friendly platform that meets the organization's needs effectively.

4. Flow Chart:

Flow Chart For Agenda

```
┌──────────────────────────┐          ┌──────────────────────────┐
│ Agenda Call by HoD Coord │◄────────►│   All dept of HoD's      │
└──────────────────────────┘          │   along with Annex's     │
            ▲                          └──────────────────────────┘
            │   To be done by the Software
            ▼
┌──────────────────────────┐
│   Agenda Compilation     │
│      HoD Coord           │
└──────────────────────────┘
            ▲
            │
            ▼
┌──────────────────────────┐
│   Agenda finalization    │
│    HoD Coord with        │
│    consultation of       │
│    Registrar PEC         │
└──────────────────────────┘
            │
            ▼
      ║  Not Editable  ║
            │
            ▼
┌──────────────────────────┐          ┌──────────────────────────┐
│ Draft agenda submission  │◄────────►│ Relevant agenda items to │
│ to the Chairman for      │          │      be visible to each  │
│ approval                 │          │   representative HoD's    │
└──────────────────────────┘          └──────────────────────────┘
            ▲
            │
            ▼
┌──────────────────────────┐
│   Issuance of agenda     │
└──────────────────────────┘
```
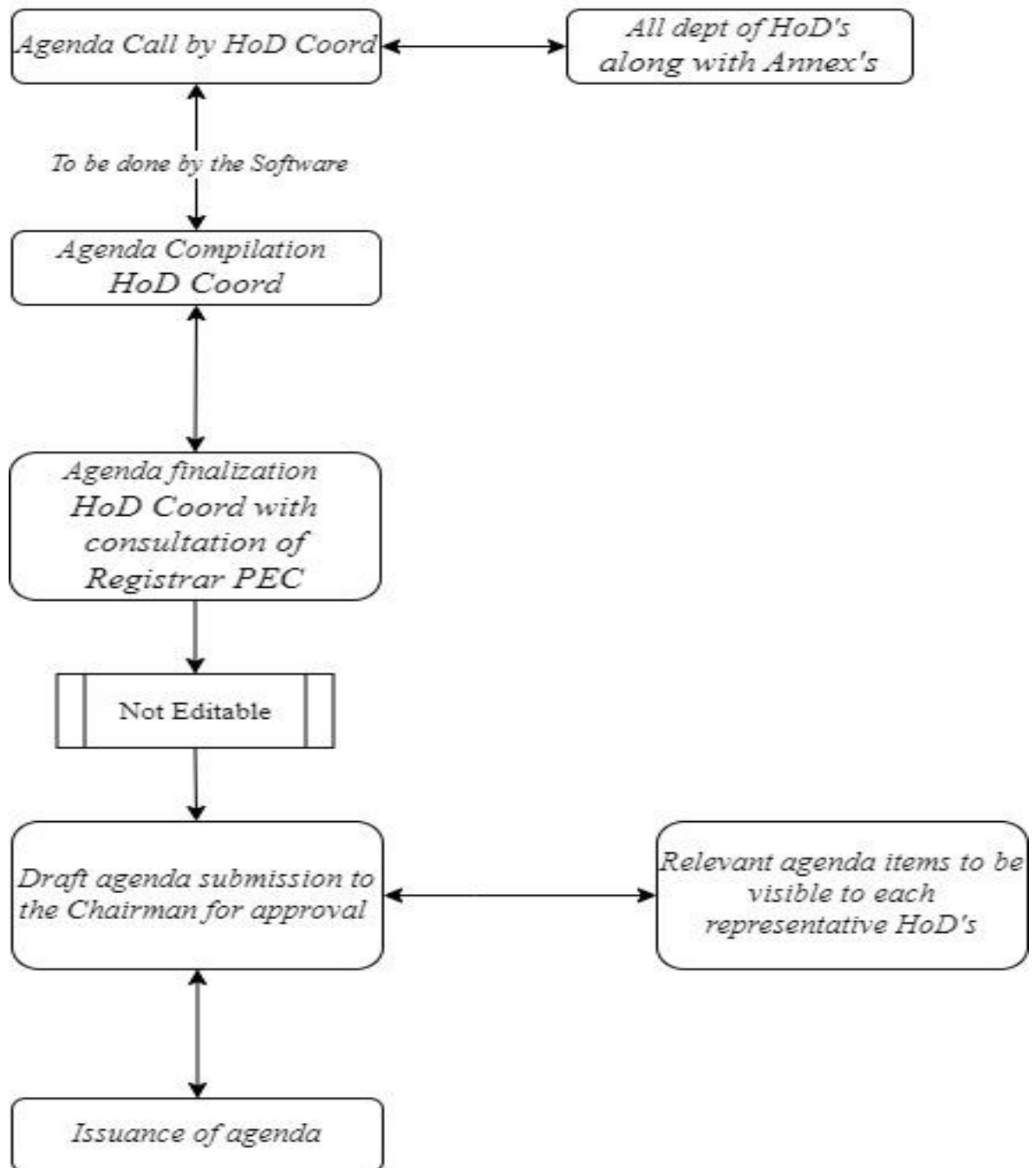
Figure 2.1

Flow Chart For Minutes Of Meetings


```
┌──────────────────────────┐              ┌──────────────────────────┐
│ Minutes call by HoD Coord │◄──────────►│ All relevant dept HoD's   │
│                          │              │ who had provided agenda   │
└──────────────────────────┘              └──────────────────────────┘
            ▲
            ▼
┌──────────────────────────────────┐
│ Draft minutes submission by      │
│ relevannt HoD's along with       │
│ Annex's                          │
└──────────────────────────────────┘
            ▲
            ▼
┌──────────────────────────────────┐
│ Draft Minutes compilation by     │
│ software in sequence of agenda   │
└──────────────────────────────────┘
            ▲
            ▼
┌──────────────────────────────────┐
│ Final compilation by HoD Coord   │
│ Revision for inclusion of any    │
│ other agenda point to be enabled │
└──────────────────────────────────┘
            ▲
            ▼
┌──────────────────────────────────┐
│ Finalization of minutes HoD      │
│ Coord in consultation with       │
│ Registrar PEC                    │
└──────────────────────────────────┘
            │
            ▼
┌──────────────────────────────────┐
│ Not Editable File after          │
│ Coord has approved               │
└──────────────────────────────────┘
            │
            ▼
┌──────────────────────────────────┐
│ Draft minutes submission to      │
│ Chairman for approval            │
└──────────────────────────────────┘
            ▲
            ▼
┌──────────────────────────────────┐
│ Issuance of minutes              │
└──────────────────────────────────┘
```

Figure 2.2

Flow Chart For Generaal Crosspondence

```
┌─────────────────────────────────────┐
│  Agenda initiative/ Documents HoD- Coord │
│              circulation             │
└─────────────────────────────────────┘
                  ↕
┌─────────────────────────────────────┐
│        Relevant dept. / HoD's        │
└─────────────────────────────────────┘
                  ↕
┌─────────────────────────────────────┐
│      Response submission HoD's       │
└─────────────────────────────────────┘
                  ↕
┌─────────────────────────────────────┐
│        compilation by software       │
└─────────────────────────────────────┘
                  ↕
┌─────────────────────────────────────┐
│     Final compilation by HoD-Coord   │
└─────────────────────────────────────┘
                  ↓
┌─────────────────────┐
│  Not Editable only   │
│      Viewable        │
└─────────────────────┘
                  ↓
┌─────────────────────────────────────┐
│      Revised by HoD and Registrar    │
└─────────────────────────────────────┘
                  ↕
┌─────────────────────────────────────┐
│              Issuance                │
└─────────────────────────────────────┘
```
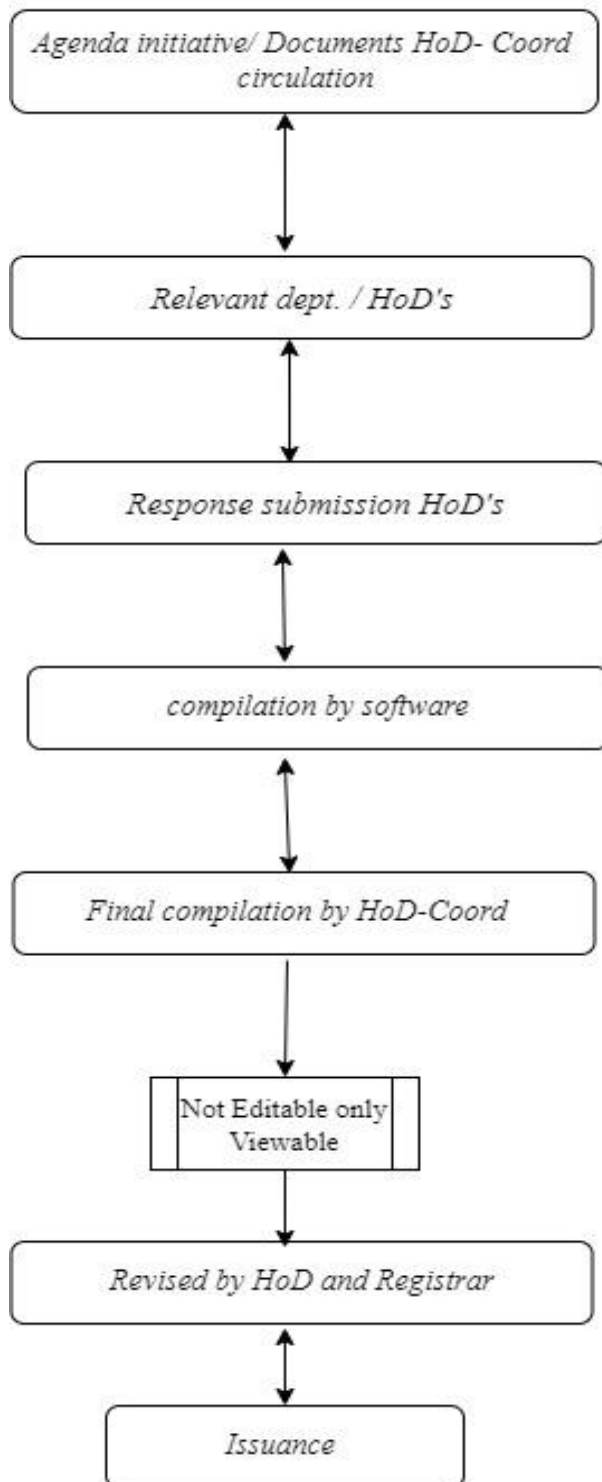
Note

1. Document circulated must be editable by all dept. at same time for input.

2. Documents Type must be

- Docx
- Xlsx
- PPt
- Spreadsheet

Figure 2.3

Flowchart for PEC Coordination Portal
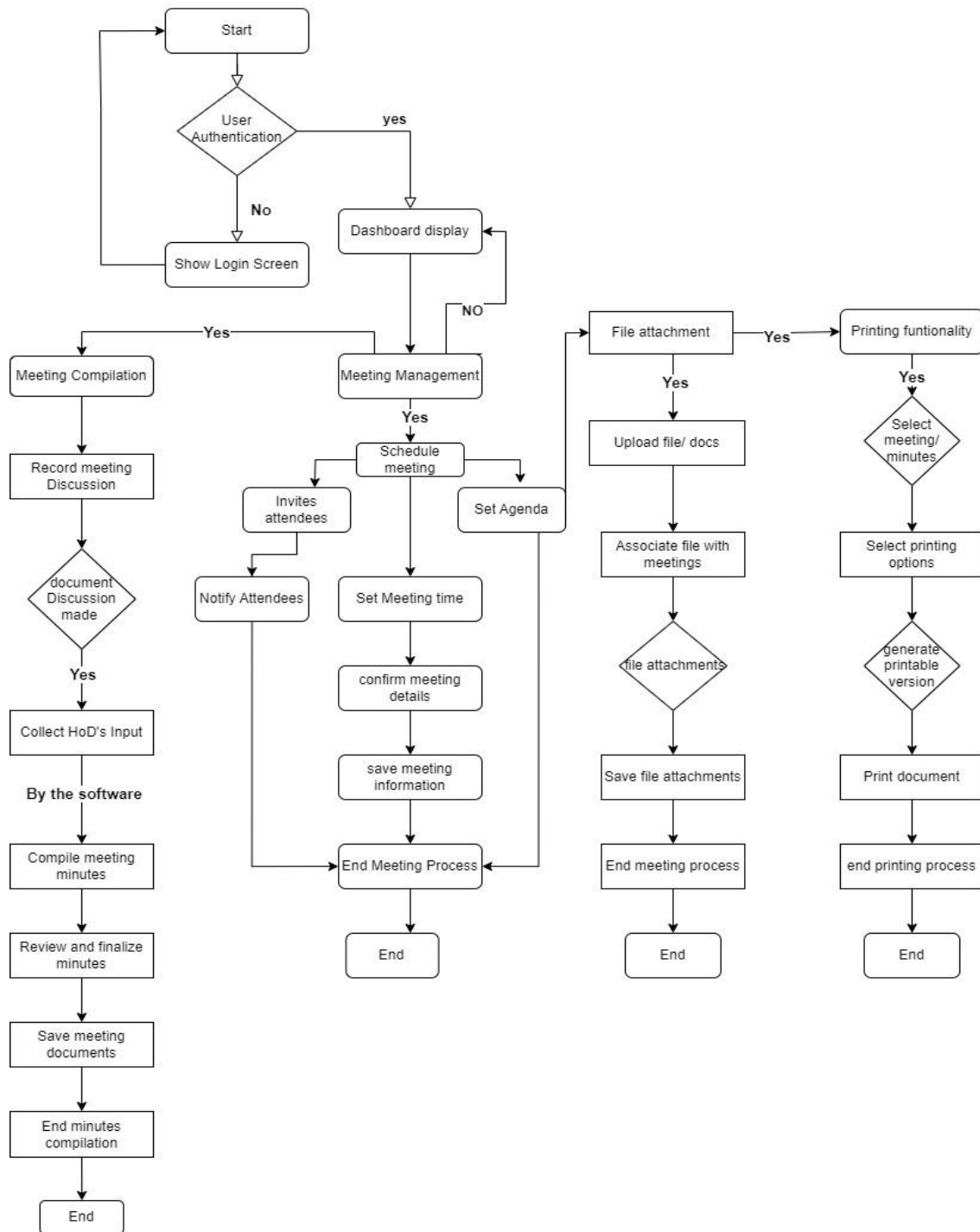
Figure 2.4

5. Use Case Diagram:
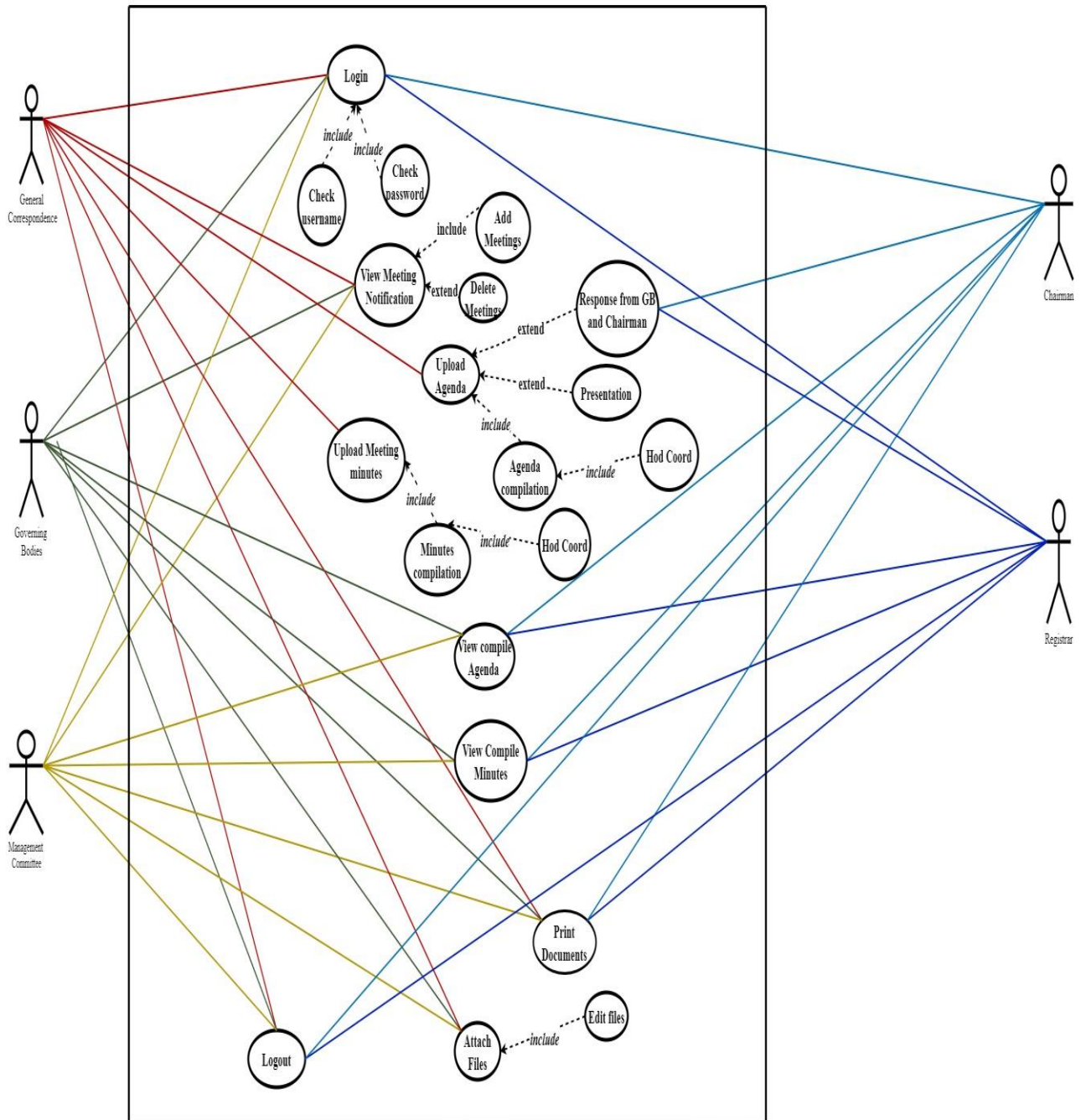
Figure 2.5

i. Use case description:

Use Case ID:	UC-1
Use Case Name:	Login
Actors:	General Correspondence, Governing body, Management Committee, Chairman, Registrar.
Description:	This use case allows authorized users to log in to the PEC Coordination Portal (PCP) using their credentials.
Trigger:	A user intends to access the PCP to participate in meetings and access related documents.
Pre-conditions:	The PCP is accessible via a web browser. The user possesses a valid email address registered with the PCP.
Post-conditions:	The user's login information is authenticated. Upon successful login, the user gains access to the PCP dashboard..
Normal Flow:	• The user navigates to the PCP login page. • The user enters their registered email address and password. • The user submits the login information. • The system verifies the entered credentials. • Upon successful verification: • The system grants access to the PCP dashboard. • The user can view upcoming meetings, upload documents, and access relevant features.
Alternative Flows:	**A1: Invalid Information** If the user provides incomplete or incorrect information: The system displays an error message. The user is prompted to correct the information and resubmit. **A2: Existing Email Address** If the user enters an email address already registered in the system: The system displays an error message. The user is prompted to enter a different email address or retrieve their password.
Exceptions:	**E1: Email Verification Failure** If the user fails to verify their email within a specified time: The system disables the account for security purposes. The user is prompted to re-register or contact support for assistance.
Includes:	Add password, Valid Emails
Special Requirements:	Authentication through a valid email address is required for registration. Users must log in or sign up to access the PCP.
Assumptions:	Users have access to a valid email address for registration.
Notes and Issues:	User will be HoD's of all departments, Governing Body members, Management Committee, Chairman, Registrar.

Table 2.1: Login

ii. Use case description:

Use Case ID:	UC-2
Use Case Name:	View Meeting Notification
Actors:	General Correspondence, Governing Body, Management Committee, Chairman, Registrar
Description:	It will allow users to View the notification of the upcoming meetings with date and time and location.
Trigger:	All the users can view the notification if it is uploaded by the HoD Coordination. A user wants to stay informed about upcoming meetings and their details.
Pre-conditions:	The user is logged into the PCP. Notifications for upcoming meetings have been created and are available in the system.
Post-conditions:	The user can view detailed information about upcoming meetings. Meeting notifications are accessible for reference and preparation.
Normal Flow:	• The user navigates to the "View Meetings" section of the PCP. • The system displays a list of upcoming meetings, including: Meeting title, Date and time, Location or Zoom meeting link, Agenda items • The user selects a specific meeting from the list to view more details. • The system presents detailed information about the selected meeting, such as: Full agenda with items and descriptions, List of attendees, Attachments (if any), Zoom meeting link (if applicable) • The user reviews the meeting details and takes necessary actions, such as preparing for the meeting or downloading attachments.
Alternative Flows:	**A1: No Upcoming Meetings** If there are no upcoming meetings: The system displays a message indicating no scheduled meetings. The user may choose to check again later or navigate to past meeting records.
Exceptions:	None for this specific use case.
Special Requirements:	Users must be logged into the PCP to view meeting notifications. Notifications must be created and scheduled within the PCP for display.
Assumptions:	Users have access to the PCP and are familiar with navigating its interface.
Notes and Issues:	Users encompass HoDs of all departments, members of the Governing Body, Management Committee, Chairman, and Registrar.

Table 2.2: View Meeting Notification

iii. Use case description:

Use Case ID:	UC-2
Use Case Name:	View Meeting Notification
Actors:	General Correspondence, Governing Body, Management Committee, Chairman, Registrar
Description:	It will allow users to View the notification of the upcoming meetings with date and time and location.
Trigger:	All the users can view the notification if it is uploaded by the HoD Coordination. A user wants to stay informed about upcoming meetings and their details.
Pre-conditions:	The user is logged into the PCP. Notifications for upcoming meetings have been created and are available in the system.
Post-conditions:	The user can view detailed information about upcoming meetings. Meeting notifications are accessible for reference and preparation.
Normal Flow:	• The user navigates to the "View Meetings" section of the PCP. • The system displays a list of upcoming meetings, including: Meeting title, Date and time, Location or Zoom meeting link, Agenda items • The user selects a specific meeting from the list to view more details. • The system presents detailed information about the selected meeting, such as: Full agenda with items and descriptions, List of attendees, Attachments (if any), Zoom meeting link (if applicable) • The user reviews the meeting details and takes necessary actions, such as preparing for the meeting or downloading attachments.
Alternative Flows:	**A1: No Upcoming Meetings** If there are no upcoming meetings: The system displays a message indicating no scheduled meetings. The user may choose to check again later or navigate to past meeting records.
Exceptions:	None for this specific use case.
Special Requirements:	Users must be logged into the PCP to view meeting notifications. Notifications must be created and scheduled within the PCP for display.
Assumptions:	Users have access to the PCP and are familiar with navigating its interface.
Notes and Issues:	Users encompass HoDs of all departments, members of the Governing Body, Management Committee, Chairman, and Registrar.

Table 2.3: View Meeting Notification

iv. Use case description:

Use Case ID:	UC-3
Use Case Name:	Upload Agenda and Compilation
Actors:	HoD of Coordination (HoD Coord), System Software, HoD's or respective depts.
Description:	This use case allows the HoD of Coordination (HoD Coord) to upload agenda items and compile the final agenda for meetings within the PEC Coordination Portal (PCP). The software system assists in compiling editable word files from each respective department into a final agenda, which is then approved by the HoD Coord for further use.
Trigger:	The HoD Coord wants to upload and compile the agenda for an upcoming meeting.
Pre-conditions:	The HoD Coord is logged into the PCP. Editable word files from respective departments have been uploaded to the system..
Post-conditions:	The final agenda is compiled and ready for further approval. The compiled agenda is locked for editing but available for viewing by authorized users.
Normal Flow:	• The HoD Coord navigates to the "Upload Agenda" section of the PCP. • The system prompts the HoD Coord to select the meeting for which the agenda is being uploaded. • The HoD Coord selects the meeting and uploads editable word files received from respective departments. • The system compiles the uploaded word files into a final agenda document with all agenda items. • The HoD Coord reviews the compiled agenda and makes any necessary adjustments or additions. • Once satisfied, the HoD Coord approves the final agenda for the selected meeting. • The system locks the agenda document for editing but makes it available for viewing by authorized users.
Alternative Flows:	**A1: No Editable Word Files** If no editable word files are uploaded for a meeting: The system displays a message indicating that no files have been uploaded. The HoD Coord can request the respective departments to upload their agenda items.
Exceptions:	None for this specific use case.
Special Requirements:	Users must be logged into the PCP with the appropriate role (HoD Coord). Editable word files from respective departments must be uploaded for compilation.
Assumptions:	Users have access to the PCP and are familiar with navigating its interface. The software system has the capability to compile and lock the agenda document.
Notes and Issues:	The compiled agenda is accessible for viewing by General Correspondence, Governing Body, Management Committee, Chairman, and Registrar.

Table 2.4: Upload Agenda

v. Use case description:

Use Case ID:	UC-5
Use Case Name:	Upload Meeting Minutes
Actors:	HoD of Coordination (HoD Coord), Software System
Description:	This use case allows the HoD of Coordination (HoD Coord) to upload and finalize the minutes of meetings after they have been held within the PEC Coordination Portal (PCP). The software system assists in compiling and finalizing the meeting minutes, which are then approved by the HoD Coord for further reference and dissemination.
Trigger:	The HoD Coord wants to upload and finalize the minutes of a completed meeting.
Pre-conditions:	The HoD Coord is logged into the PCP. The meeting has been held and all necessary information is available.
Post-conditions:	The final minutes of the meeting are compiled and ready for reference. The compiled minutes are locked for editing but available for viewing by authorized users.
Normal Flow:	• The HoD Coord navigates to the "Upload Meeting Minutes" section of the PCP. • The system prompts the HoD Coord to select the meeting for which the minutes are being uploaded. • The HoD Coord selects the meeting and uploads the minutes document. • The system compiles the uploaded minutes into a final document with all meeting details. • The HoD Coord reviews the compiled minutes and makes any necessary adjustments or corrections. • Once satisfied, the HoD Coord approves the final minutes for the selected meeting. • The system locks the minutes document for editing but makes it available for viewing by authorized users.
Alternative Flows:	**A1: No Minutes Uploaded** If no minutes document is uploaded for a meeting: The system displays a message indicating that no document has been uploaded. The HoD Coord can upload the minutes document manually.
Exceptions:	None for this specific use case.
Special Requirements:	Users must be logged into the PCP with the appropriate role (HoD Coord). The meeting must have been held and all necessary information available for minutes compilation.
Assumptions:	Users have access to the PCP and are familiar with navigating its interface. The software system has the capability to compile and lock the minutes document.
Notes and Issues:	The compiled minutes are accessible for viewing by General Correspondence, Governing Body, Management Committee, Chairman, and Registrar.

Table 2.5: Upload Minutes of Meetings

vi.   Use case description:

Use Case ID:	UC-6
Use Case Name:	View Compiled Agenda
Actors:	HoDs of All Departments, Chairman, Registrar
Description:	This use case allows HoDs of all departments to view the compiled agenda after it has been finalized by the HoD of Coordination (HoD Coord) within the PEC Coordination Portal (PCP). The compiled agenda is then sent to the Chairman and Registrar for further review and assistance.
Trigger:	The compiled agenda has been finalized by the HoD Coord and is ready for viewing by HoDs, Chairman, and Registrar.
Pre-conditions:	The compiled agenda has been approved and finalized by the HoD Coord. HoDs, Chairman, and Registrar are logged into the PCP.
Post-conditions:	HoDs, Chairman, and Registrar can view the compiled agenda for the upcoming meeting. The agenda document is accessible for reference and preparation.
Normal Flow:	• The HoD of Coordination (HoD Coord) finalizes the agenda compilation and approves it within the PCP. • The compiled agenda is made available in the "View Compiled Agenda" section of the PCP. • HoDs of all departments, Chairman, and Registrar navigate to the "View Compiled Agenda" section. • The system displays the compiled agenda, including: Meeting title, Date and time, Agenda items with descriptions, Attachments (if any), Zoom meeting link (if applicable) • HoDs, Chairman, and Registrar review the compiled agenda for the upcoming meeting. • They can download or print the agenda for reference and preparation.
Alternative Flows:	None for this specific use case.
Exceptions:	None for this specific use case.
Special Requirements:	Users must be logged into the PCP with the appropriate role (HoDs, Chairman, Registrar). The compiled agenda must have been approved by the HoD Coord.
Assumptions:	Users have access to the PCP and are familiar with navigating its interface.
Notes and Issues:	The compiled agenda is accessible for viewing by HoDs of all departments, Chairman, and Registrar.

Table 2.6: View Compile Agenda

vii. Use case description:

Use Case ID:	UC-6
Use Case Name:	View Compiled Minutes
Actors:	HoDs of All Departments, Chairman, Registrar.
Description:	This use case allows HoDs of all departments, Chairman, and Registrar to view the compiled minutes after they have been finalized by the HoD of Coordination (HoD Coord) within the PEC Coordination Portal (PCP). The compiled minutes are then available for reference and review.
Trigger:	The compiled minutes have been finalized by the HoD Coord and are ready for viewing by HoDs, Chairman, and Registrar.
Pre-conditions:	The compiled minutes have been approved and finalized by the HoD Coord. HoDs, Chairman, and Registrar are logged into the PCP.
Post-conditions:	HoDs, Chairman, and Registrar can view the compiled minutes for the completed meeting. The minutes document is accessible for reference and review.
Normal Flow:	• The HoD of Coordination (HoD Coord) finalizes the minute's compilation and approves it within the PCP. • The compiled minutes are made available in the "View Compiled Minutes" section of the PCP. • HoDs of all departments, Chairman, and Registrar navigate to the "View Compiled Minutes" section. • The system displays the compiled minutes, including: Meeting title and date, List of attendees, Agenda items with discussions and decisions, Attachments (if any) • HoDs, Chairman, and Registrar review the compiled minutes for the completed meeting. • They can download or print the minutes for reference and review.
Alternative Flows:	None for this specific use case.
Exceptions:	None for this specific use case.
Special Requirements:	Users must be logged into the PCP with the appropriate role (HoDs, Chairman, Registrar). The compiled minutes must have been approved by the HoD Coord.
Assumptions:	Users have access to the PCP and are familiar with navigating its interface.
Notes and Issues:	The compiled minutes are accessible for viewing by HoDs of all departments, Chairman, and Registrar.

Table 2.7: View Compile Minutes

viii.   Use case description:

Use Case ID:	UC-6
Use Case Name:	Attach Files
Actors:	Users (HoDs, General Correspondence, Governing Body, Management Committee, Chairman, Registrar), HoD of Coordination (HoD Coord)
Description:	This use case allows users to attach editable files to the Coordination Department within the PEC Coordination Portal (PCP). Once the files are submitted to the HoD of Coordination (HoD Coord), they become editable for further processing and review.
Trigger:	A user wants to attach editable files to the Coordination Department for a meeting or documentation.
Pre-conditions:	The user is logged into the PCP. The user has the appropriate permissions to attach files. The HoD Coord is logged into the PCP.
Post-conditions:	The attached files are stored in the Coordination Department's repository. Once submitted to the HoD Coord, the files become editable for further processing.
Normal Flow:	• The user navigates to the "Attach Files" section of the PCP. • The system prompts the user to select the meeting or purpose for attaching the files. • The user selects the relevant meeting or purpose and proceeds to upload files. • The user selects the files from their device and uploads them to the PCP. • The system stores the uploaded files in the Coordination Department's repository. • The HoD Coord receives a notification about the newly attached files. • The HoD Coord navigates to the "Manage Files" section and views the newly attached files. • The HoD Coord can download, review, and edit the attached files as needed for further processing. • The HoD Coord can also assign tasks or distribute the files to relevant stakeholders for review or action.
Alternative Flows:	**A1: Invalid File Format** If the user attempts to upload a file in an invalid format: The system displays an error message indicating the acceptable file formats. The user is prompted to upload files in the correct format. **A2: No Files Attached** If the user attempts to submit without attaching any files: The system displays a message indicating that no files have been attached. The user is prompted to upload files before submission.
Exceptions:	None for this specific use case.
Special Requirements:	Users must be logged into the PCP with the appropriate permissions. The uploaded files should be in editable formats (Word, Excel, PowerPoint, etc.). The HoD Coord has the ability to edit and manage the attached files.
Assumptions:	Users have access to the PCP and are familiar with attaching files. The HoD Coord is responsible for further processing and review of attached files.
Notes and Issues:	The attached files are accessible for viewing and editing by the HoD Coord after submission.

Table 2.8: Attach Files

ix. Use case description:

Use Case ID:	UC-6
Use Case Name:	Print Documents
Actors:	Users (HoDs, General Correspondence, Governing Body, Management Committee, Chairman, Registrar), HoD of Coordination (HoD Coord)
Description:	This use case allows users to print documents that are attached to meetings or other purposes within the PEC Coordination Portal (PCP). The printed documents can be used for reference, distribution, or physical record-keeping.
Trigger:	A user wants to print attached documents for a meeting or documentation.
Pre-conditions:	The user is logged into the PCP. The user has the appropriate permissions to access and print documents. The document(s) to be printed are attached to a meeting or purpose.
Post-conditions:	The user obtains printed copies of the attached documents. Printed documents can be used for reference, distribution, or record-keeping..
Normal Flow:	• The user navigates to the meeting or purpose for which documents are attached. • The user selects the document(s) they wish to print. • The system displays a "Print" option for the selected document(s). • The user clicks on the "Print" option. • The user's device's print dialog box opens, allowing them to select printing options (e.g., printer, number of copies, etc.). • The user confirms the printing settings and clicks "Print". • The system sends the document(s) to the selected printer for printing. • The user obtains printed copies of the document(s) for their use.
Alternative Flows:	**A1: No Print Option** If the system does not display a "Print" option for the selected document(s): The user may not have permission to print the document(s). The user can request print access from the HoD Coord or system administrator. **A2: Printer Unavailable** If the user's selected printer is unavailable: The user can choose an alternative printer from the available options. The user can save the document(s) as PDF for later printing when the printer is available.
Exceptions:	None for this specific use case.
Special Requirements:	Users must be logged into the PCP with the appropriate permissions. The attached documents should be in a printable format (PDF, Word, Excel, etc.).
Assumptions:	Users have access to a printer or printing service. The user's device is connected to the printer.
Notes and Issues:	Printed documents are obtained by the user for their reference or distribution purposes.

Table 2.9: Print Documents
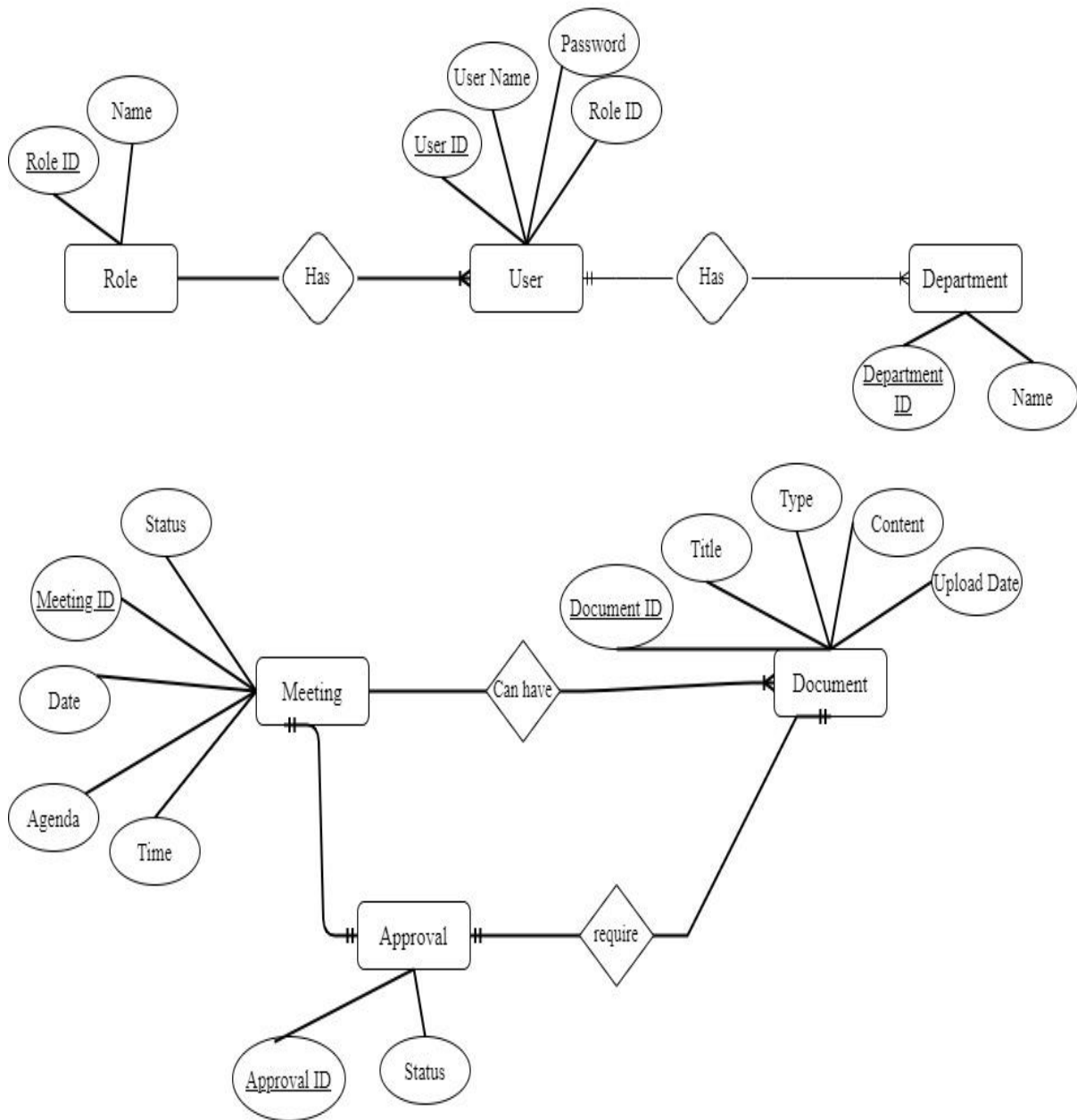
6. Entity Relation Diagram:

Entity Relation Doagram

Figure 2.6