SELF INTENSIVE TRAINING ON FULL STACK DEVELOPMENT Stage -1

(Planning And Requirement Gathering)

Name : GOWTHAM P M
Roll No : 7376221EC165
Seat No
Project ID :27
Module Name :S8 PROJECT MANAGEMENT

TECHNICAL COMPONENTS:

COMPONENT MERN STACK
Frontend : Vue (JS Library for building user interfaces)
Backend : Node.js with Express.js
Database : MongoDB (NOSQL Database)
API : Open API

1. Introduction

1.1. Purpose:

Project management ensures that a project is completed efficiently and successfully. It involves planning, organizing, and managing resources to achieve specific goals. Project managers coordinate tasks, timelines, and budgets while mitigating risks. They also ensure clear communication among team members and stakeholders. Ultimately, project management helps deliver projects on time, within scope, and on budget. and how the system will respond to external stimuli.

1.2. Scope of Project:

- Defining project objectives, deliverables, tasks, timelines, and resource requirements. This includes creating project plans, schedules, and budgets, as well as identifying key stakeholders and setting project milestones.

- Managing and coordinating resources to carry out the project plan, monitoring progress, and making adjustments as needed. This includes risk management, quality control, communication management, and ensuring the project stays on track to meet its goals and deadlines.

2. System Overview:

2.1. Users:

1. **Students**:

They have the ability to submit applications for project approval, upload relevant project documents, monitor the status of their application, schedule appointments following approval, and review their TAC interaction history.

2. Admins:

review submitted project applications, approve or reject applications (with remarks), manage appointments, schedule meetings, and access analytical dashboards for project oversight

2.2. Features:

1. Login and registration:

Students can register for an account or login with their existing account.

2. Project Application Submission:

Students can input relevant details regarding their project application including project title, description, objectives, and any necessary attachments. Upon completion, the application is submitted to the admin interface for review and further processing

3. Application Status:

Students can view the current status of their application and also see the history logs in the option Activity

4. Appointment Booking

Student with approved Project ID can request for Project review after completion of 30 days

5. Admin Access:

Admin can view all submitted project applications in a category of either software or hardware, view application details, approve or reject the application with suitable remarks, schedule meetings.

Notifications

Users should receive notifications regarding the status of their venue registration and booking requests (approved, denied, or modified by the administrator).

User Management

1.The system should have user authentication and authorization mechanisms.

2.Users can be assigned different roles (e.g., regular user, administrator) with varying levels of access and permissions.

Reporting and Analytics

1.The system should provide reporting and analytics features for administrators to monitor project review conditions,project follow-up and report collection.

User Interface

1.The system should have a user-friendly interface for users to project review conditions,project follow-up and report collection.

2.Administrators should have a separate interface or dashboard to manage project review conditions,project follow-up and report collection and analytics features.

3. System Requirements Specification:

3.1 Functional Requirements:

User Management

1.User registration and authentication (login/logout).

2.User roles (admin, regular user) with different permissions.

Planning and scheduling

Planning and scheduling involve defining project objectives, scope, and deliverables, creating a detailed project timeline, and allocating resources effectively. This ensures that tasks are

completed on time and within budget, facilitating smooth project execution and goal achievement.

Monitoring and Controlling

Monitoring and controlling involve tracking project progress against the plan, identifying any deviations, and implementing corrective actions. This ensures that project objectives are met on time and within scope, maintaining quality and managing risks effectively.

Resource Management

Resource management involves identifying, allocating, and managing all necessary resources, such as personnel, equipment, and materials. It ensures optimal utilization, reduces waste, and supports efficient project execution to meet objectives within constraints.

Risk Management

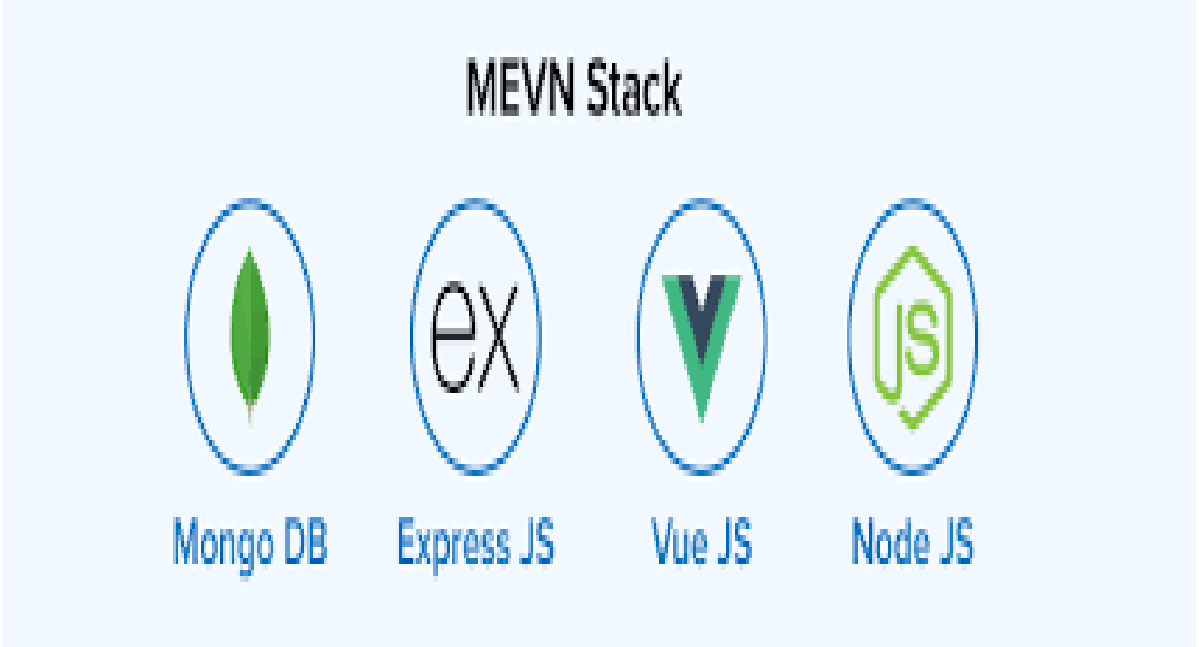
Risk management involves identifying potential risks, assessing their impact, and developing strategies to mitigate or manage them. This proactive approach helps minimize disruptions and ensures project objectives are achieved despite uncertainties.

3.2. Non-Functional Requirements:

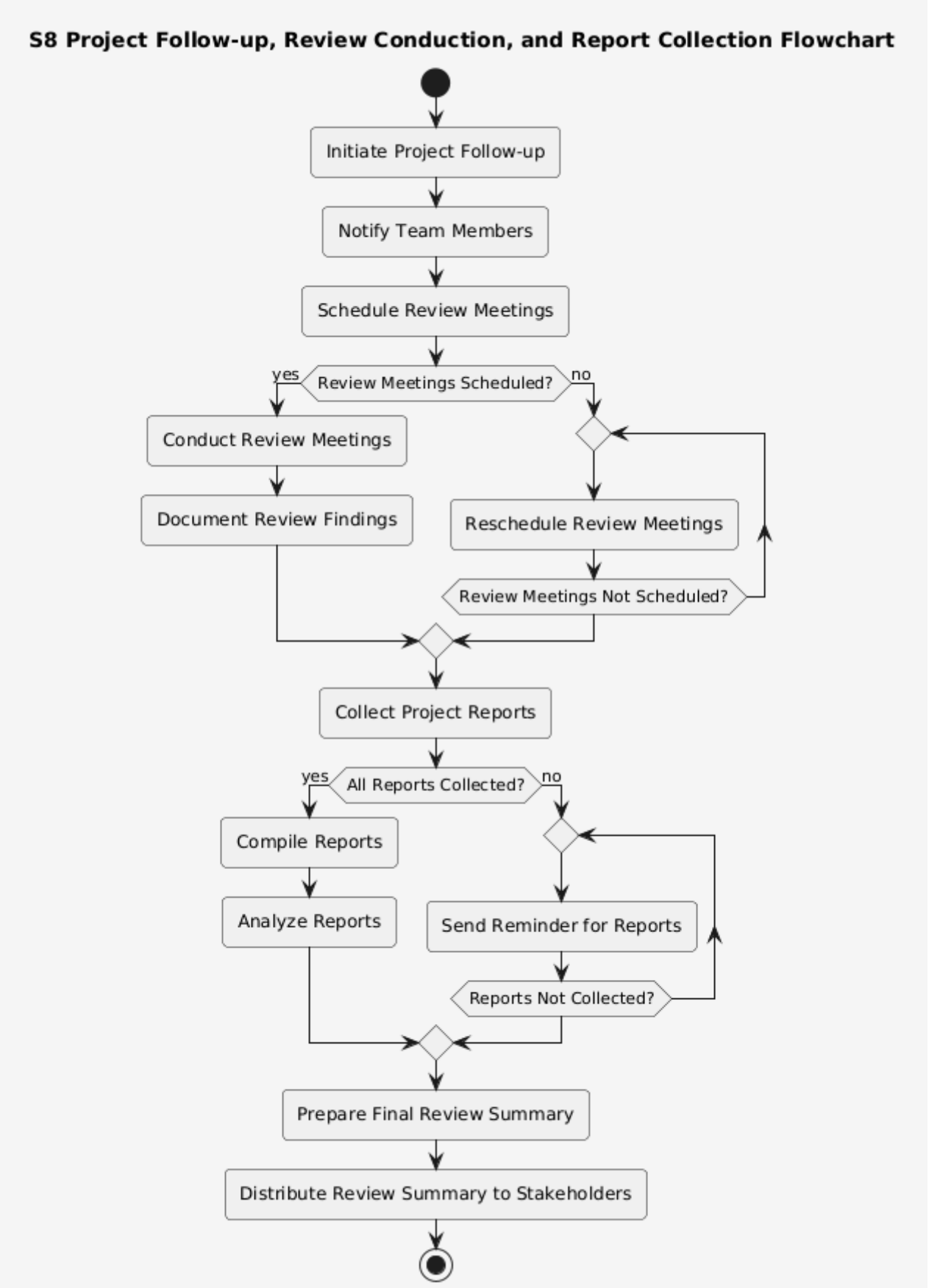
- **Performance:** The system must respond to user actions within 2 seconds to ensure efficient usability and must handle a concurrent user load of at least 100 users without significant performance degradation.
- **Security:** User data must be encrypted during transmission and storage, and access to sensitive functionalities should be restricted to authorized admin users through secure authentication mechanisms.
- **Usability:** The user interface should be intuitive and user-friendly, with clear and concise error messages provided to guide users in case of input errors or system failures.
- **Reliability:** The system should be available 24/7 with minimal downtime

and should have a backup and recovery mechanism in place to prevent data loss in case of system failures or crashes.

- **Scalability:** The system should be designed to accommodate an increasing number of users and data volume over time, and it should be scalable to support additional features and functionalities as per future requirements.



flowchart:


S8 Project Follow-up, Review Conduction, and Report Collection Flowchart
Initiate Project Follow-up
Notify Team Members
Schedule Review Meetings
Review Meetings Scheduled?
yes
no
Conduct Review Meetings
Document Review Findings
Reschedule Review Meetings
Review Meetings Not Scheduled?
Collect Project Reports
All Reports Collected?
yes
no
Compile Reports
Analyze Reports
Send Reminder for Reports
Reports Not Collected?
Prepare Final Review Summary
Distribute Review Summary to Stakeholders