Software Requirement Specification

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PROJECT ID: 02

STACK: JAVA SPRING BOOT

PROJECT TITLE: PROJECT TRACKING

Technical Components

Components	Tech Stack
Backend	Spring Boot
Frontend	React.js
Database	MySQL
API	RESTful services

Implementation Timeline

Phase	Deadline	Status	Notes
Stage 1	20-07-2024	<u>Completed</u>	Planning and Requirement gathering
Stage 2		Under review	Design and Prototyping
Stage 3		Under review	DB Designing
Stage 4		In progress	Backend Implementation
Stage 5		Not started	Testing & Implementation

PROBLEM STATEMENT:

The decentralized nature of project management within organizations leads to several challenges, including:

- **1. Inefficient Collaboration:** Team members and collaborators often work in silos, leading to miscommunication and duplicated efforts.
- **2.** Lack of Visibility: Project managers struggle to obtain real-time updates on project progress, making it difficult to make informed decisions.
- **3. Resource Conflicts:** Inefficient resource allocation results in conflicts and project delays.
- **4. Tracking Issues:** Difficulty in tracking task completion and the overall project status.

PROJECT-FLOW:

Purpose:

To develop a centralized project tracking system that efficiently manages project lifecycles, integrating seamlessly with GitHub for better tracking, collaboration, and completion.

Scope:

This system includes user authentication, GitHub link reminders, marks and deadline leaderboard, origin process integration, weekly tracking and verification, and project completion verification.

Business Context:

The centralized project tracking system aims at enhancing project management efficiency and team collaboration by providing a secure and proprietary solution, avoiding the use of open-source utilities.

Consideration:

- All users possess active organizational accounts for authentication.
- Users have regular access to internet-enabled devices.

Dependencies:

- Integration with GitHub for user authentication and project tracking.
- Consistent performance and availability of GitHub services.

User Personas:

- **Student**: Needs an up-to-date schedule to effectively plan activities.
- **Faculty**: Requires the ability to send out schedule updates and notices efficiently.
- Admin Staff: Manages system operations, resolves conflicts, and approves project progress.

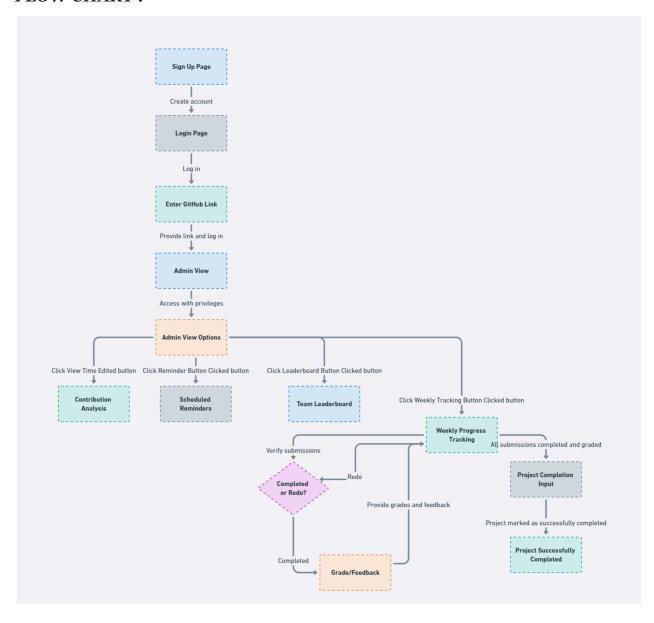
User Stories:

- As a student, I want to view a unified schedule of my tasks and events to organize my day effectively.
- As a faculty member, I need to ensure my communications reach students without conflicting with their other scheduled activities.

Functional Requirements:

- User Authentication: Secure login using GitHub OAuth.
- GitHub Link Reminders: Users receive reminders for GitHub link updates.
- Marks and Deadline Management: Track deadlines, assign marks, and create a leaderboard.
- Origin Process Integration: Seamless GitHub integration for better tracking.
- Weekly Tracking: Implement weekly tracking and verification of project progress.
- **Project Completion Verification:** Ensure all project requirements are met for final submission.

FLOW CHART:



ER - Diagram :

