

Information On Project Management

Initial Timeline and Milestones

1. Phase 1: Requirements Gathering and System Design (Weeks 1-2)

- Objectives:
 - Understand the user needs for both individual and team-based tracking systems by conducting surveys and interviews.
 - Define the scope and core features of the Project Diary application, including the main functionalities and any potential additional features.
 - Develop user personas to gain insights into different user groups (individuals, students, freelancers, project managers, and team members).
 - Design wireframes and mockups for the user interface, visualising how the application will look and feel.
 - Document the functional and non-functional requirements of the system, making sure to identify clear deliverables and expectations.
- Milestones:
 - Completion of user surveys and analysis reports.
 - Finalised wireframes and mockups approved by all stakeholders (project team members, potential users, etc.).

2. Phase 2: Frontend (JavaFX) and Backend (Java) Development (Weeks 3-6)

- Objectives:
 - Set up the development environment, ensuring that all team members have access to the necessary Java Development Kit (JDK) and JavaFX tools (e.g., Eclipse Temurin and Gluon Scene Builder).
 - Develop the frontend of the application using JavaFX, ensuring usability and accessibility through clear navigation and interactive design.
 - Implement the backend logic using Java, making sure the application can efficiently handle user inputs, time tracking, and activity categorisation.
 - Ensure the application supports real-time updates and can handle both individual and collaborative usage scenarios.
- Milestones:
 - Completion of the user interface components (forms, dashboards) with basic functionality.
 - Backend APIs and business logic developed, tested, and integrated into the frontend.
 - Initial user testing of UI/UX with a subset of users to validate design and usability.

3. Phase 3: Database Integration (MySQL) (Weeks 7-8)

- Objectives:
 - Design the database schema to support project tracking and time logging functionalities.
 - Set up the MySQL database, ensuring proper configuration and data integrity.
 - Develop data access methods using JDBC to enable seamless interaction between the Java application and the database for operations like CRUD (Create, Read, Update, Delete).
 - Ensure data security and privacy, especially for personal objectives, challenges, and solutions logged by users.
- Milestones:
 - Database schema designed and reviewed by the team.
 - Successful CRUD operations tested, including inserting and retrieving project activity data.
 - Database integration with the frontend confirmed and functional.

Management and Communication Tools

The team will employ a variety of tools to ensure smooth communication, progress tracking, and collaboration:

1. GitLab (Version Control & Project Management)

- GitLab will serve as the main repository for all project files, including code, documentation, and version control.
- We will maintain a structured project management board within GitLab to track tasks and milestones, assign responsibilities, and update the status of various features or tasks.

2. Miro (Collaboration & Brainstorming)

- Miro will be used for collaborative brainstorming, ideation, and problem-solving sessions.
- It will also facilitate team discussions, allowing us to create visual diagrams, flowcharts, and mind maps to support understanding and planning of the application's features and system design.

3. PlantUML (Diagrams & Architecture)

- PlantUML will be employed to generate diagrams and architecture models such as class diagrams, sequence diagrams, and entity-relationship (ER) diagrams.

- This tool will help in designing the application's structure, database models, and high-level workflows, making it easier to convey complex ideas visually.

4. Notion (Documentation & Task Tracking)

- Notion will be used as the main tool for tracking progress and documenting requirements, design choices, and meeting notes.
- It will also serve as a knowledge base for the project, where all team members can access project briefs, technical decisions, and user stories, as well as keep track of tasks and objectives in a centralised manner.

Team Organisation

The project team will be divided into the following roles and responsibilities:

- **Project Manager (Rotating role)**
 - Ensure that the project progresses according to plan, keeping the team on track and within deadlines.
 - Coordinate with all team members to address any roadblocks or issues.
 - Oversee the quality of deliverables and ensure proper testing and integration at each phase.
- **Frontend Developers (JavaFX)**
 - Develop the user interface of the Project Diary using JavaFX.
 - Ensure a smooth user experience (UX) through intuitive design and accessibility features.
 - Collaborate with the backend team to integrate frontend elements with backend APIs.
- **Backend Developers (Java & MySQL)**
 - Implement core backend functionalities using Java.
 - Develop and maintain the database system (MySQL) to support project activity tracking.
 - Ensure that the backend is scalable, secure, and efficient.
- **Database & API Specialist (MySQL & JDBC)**
 - Design and manage the database schema, ensuring it meets the needs of the Project Diary application.
 - Develop APIs for interacting with the database and ensure seamless data flow between the frontend and backend.
- **Requirements Engineer**
 - Gather and define the functional and non-functional requirements for the project.
 - Work with the Project Manager and other team members to ensure that all user stories are captured, understood, and properly documented.
- **Tester (Quality Assurance)**
 - Develop and execute test cases to ensure the application is functional and free of bugs.
 - Test both individual features and the overall system to ensure integration between frontend, backend, and database works correctly.

Project Planning

- **Timeline:**
 - The project will follow an agile development model, with regular sprints and iterations to ensure that feedback can be incorporated throughout the process.
 - Each phase will last for approximately two weeks, with milestones and objectives clearly defined for each phase.
 - Regular team meetings will take place to discuss progress, blockers, and next steps. These meetings will be scheduled and documented in Notion for easy reference.
- **Communication:**
 - The team will communicate primarily through Slack for quick discussions and urgent questions.
 - Weekly progress meetings will be held on Googlemeet, where the team will update each other on progress, identify any obstacles, and plan the next steps.
 - Miro will be used for visual collaboration during these meetings, ensuring all members are on the same page.
- **Task Management:**
 - Tasks will be tracked using GitLab's project management boards, where each task will be assigned to a team member with deadlines.
 - Notion will be used for high-level tracking, ensuring that overall project objectives, requirements, and technical decisions are kept up-to-date.