

Orbit: Personal Well-being Web Application

Fundamentals of Software Engineering

Deliverable 3: Sprint 2 (Iteration 2)

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Orbit: Personal Wellbeing Application

0.1 Introduction

This project, Orbit: Personal Well-being Web Application, is designed to help users manage their daily tasks, track habits, reflect on their thoughts, and improve their mental well-being. Many apps focus on only one aspect, like task management or meditation, but Orbit brings everything together in one place. It is built using C and MySQL with Windows Forms, making it a functional and user-friendly desktop application. Users can securely log in, organize tasks, monitor their emotions, and analyze their progress through interactive features.

Orbit offers several key features, including a To-Do List for organizing tasks, Journaling for self-reflection, a Habit Tracker to build positive routines, Meditation Exercises for relaxation, a Mood Tracker to log emotions, and a Monthly Overview with calendars and graphs to track progress.

The scope of Orbit is to provide an easy-to-use and efficient tool for personal growth. The app ensures secure data storage with MySQL, smooth functionality through Windows Forms, and an intuitive interface for all users.

The solution Orbit provides is a single platform for managing both productivity and well-being. Instead of using multiple apps, users can track everything in one place. With a structured C backend, a secure database, and an interactive design, Orbit ensures a seamless and practical experience. It is built to be scalable and adaptable, with future possibilities for AI-driven insights and cloud storage.

Orbit is an efficient, simple, and reliable way to help users stay productive and take care of their mental health, making everyday life more organized and stress-free.

0.2 Sprint 2 Backlog

Module for Sprint 2: Homepage, To do List, Journal Your Thoughts, Meditation, Monthly Overview

0.2.1 User Stories for Sprint 2

- **User Story 1: Homepage**

- As a *user*, I want to *view a welcoming homepage* so that I can *understand the app's purpose and features*.

Sub-User Stories:

- As a *user*, I want to *see a navigation bar* so that I can *easily access other sections*.
- As a *user*, I want to *read a brief app description* so that I *understand its features*.

• **User Story 2: To Do List**

- As a *user*, I want to *add tasks to a to-do list* so that I can *stay organized*.

Sub-User Stories:

- As a *user*, I want to *mark tasks as completed* so that I can *track my progress*.
- As a *user*, I want to *delete tasks* so that I can *remove irrelevant items*.
- As a *user*, I want to *set due dates for tasks* so that I can *manage time effectively*.

• **User Story 3: Journal Your Thoughts**

- As a *user*, I want to *write and save my thoughts* so that I can *reflect on my day*.

Sub-User Stories:

- As a *user*, I want to *edit existing journal entries* so that I can *make corrections or updates*.
- As a *user*, I want to *view past entries* so that I can *track my emotional progress*.
- As a *user*, I want to *delete journal entries* so that I can *remove outdated or unwanted reflections*.
- As a *user*, I want to *search journal entries by keyword or date* so that I can *quickly find specific memories*.

• **User Story 4: Monthly Overview**

- As a *user*, I want to *view a monthly calendar* so that I can *schedule and plan important events or goals*.

Sub-User Stories:

- As a *user*, I want to *add events to specific dates* so that I can *remember appointments or tasks*.

- As a *user*, I want to *edit events on the calendar* so that I can *adjust plans as needed*.
- As a *user*, I want to *delete calendar events* so that I can *remove old or canceled events*.
- As a *user*, I want to *see upcoming events at a glance* so that I can *stay prepared for the month*.

0.3 Structured Specifications for User Stories

| User Story | ID | Preconditions | Description | Expected Output |
|-----------------------|--------|-------------------|--|--|
| Homepage | US-001 | None | The user visits the homepage to see an introduction to the app | The user sees a welcoming homepage with navigation and brief app details |
| To Do List | US-002 | User is logged in | The user adds, checks, and deletes tasks from a list | The to-do list updates based on the user's actions |
| Journal Your Thoughts | US-003 | User is logged in | The user writes and reviews personal journal entries | Entries are saved, viewable, and editable by the user |
| Meditation | US-004 | None | The user selects and starts a guided meditation session | A meditation session plays with chosen options like duration or theme |

Table 1: Structured Specifications for User Stories

0.4 Scrum Board Snapshots for Sprint 1

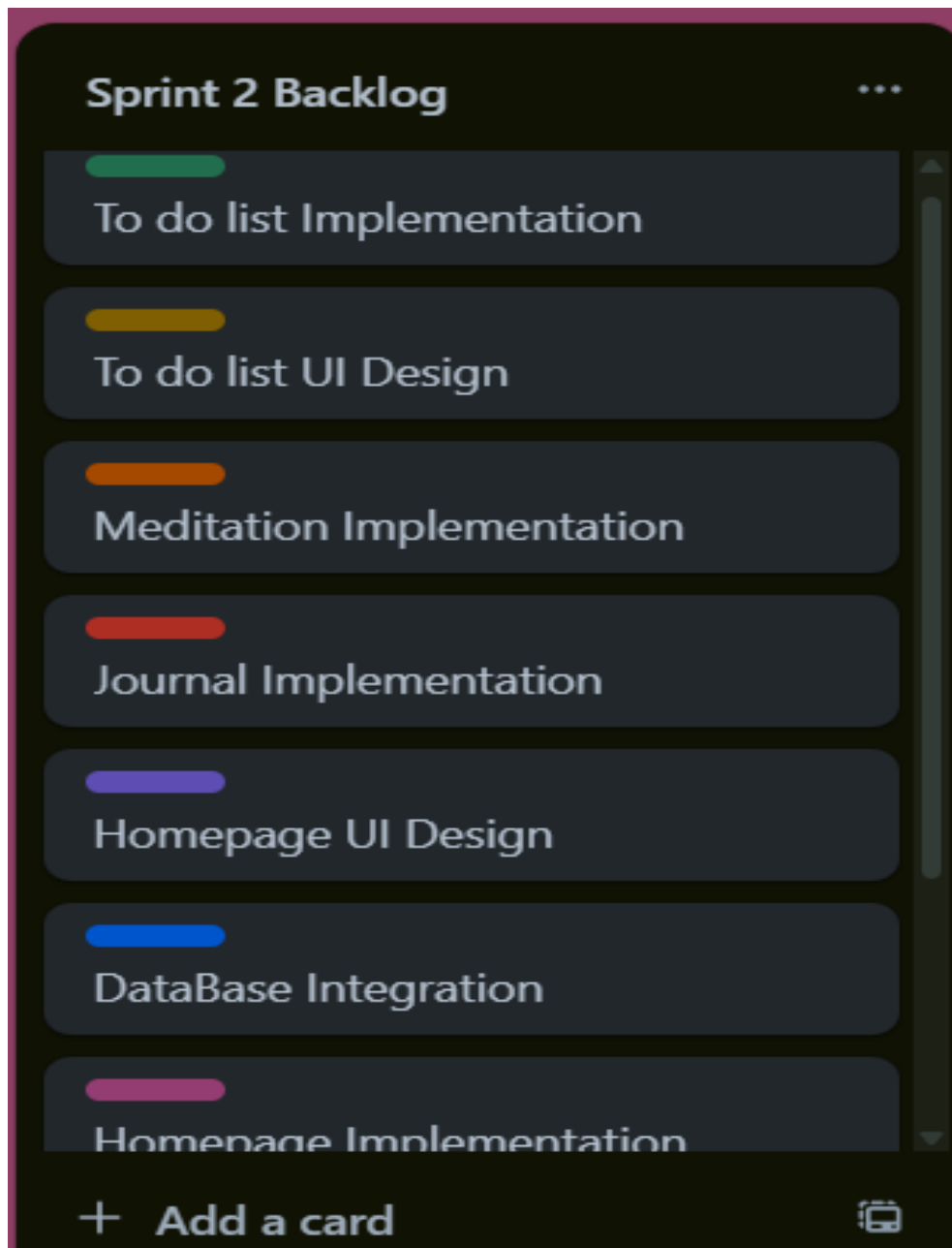


Figure 1: Snapshot 1:Sprint Backlog

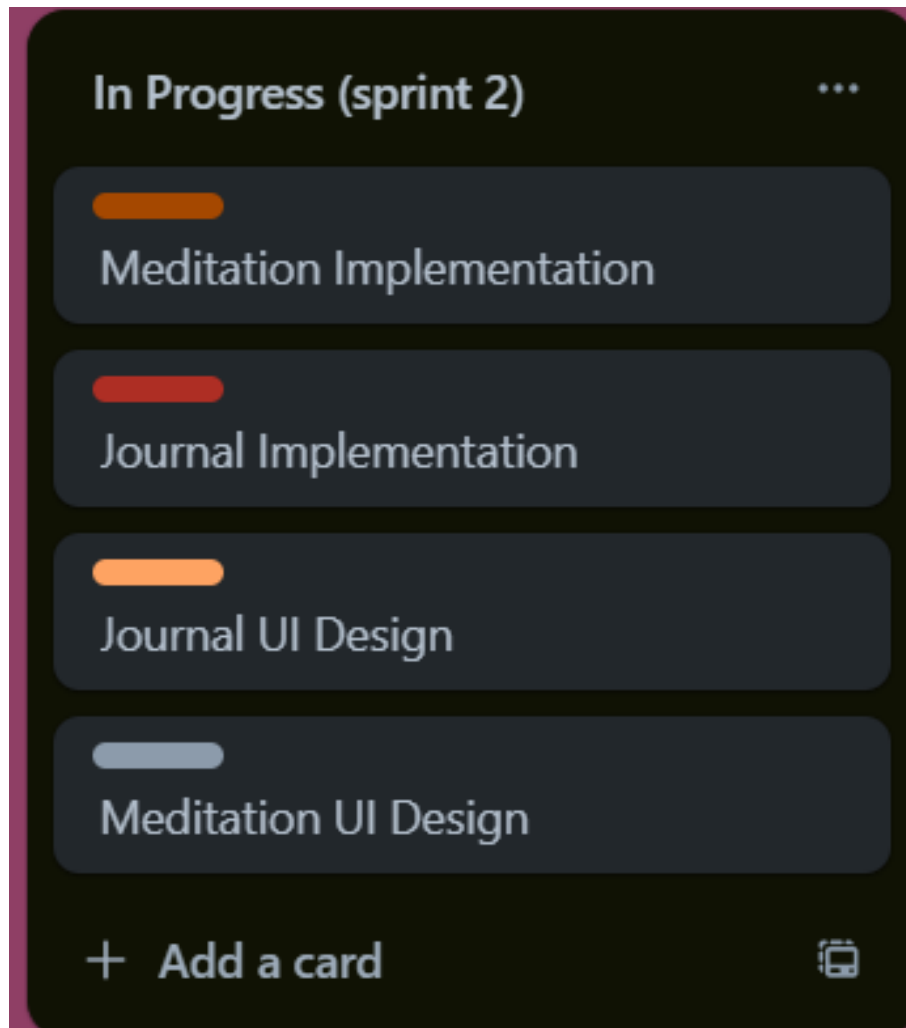


Figure 2: Snapshot 2: Mid-Sprint Progress (Half of User Stories Completed)

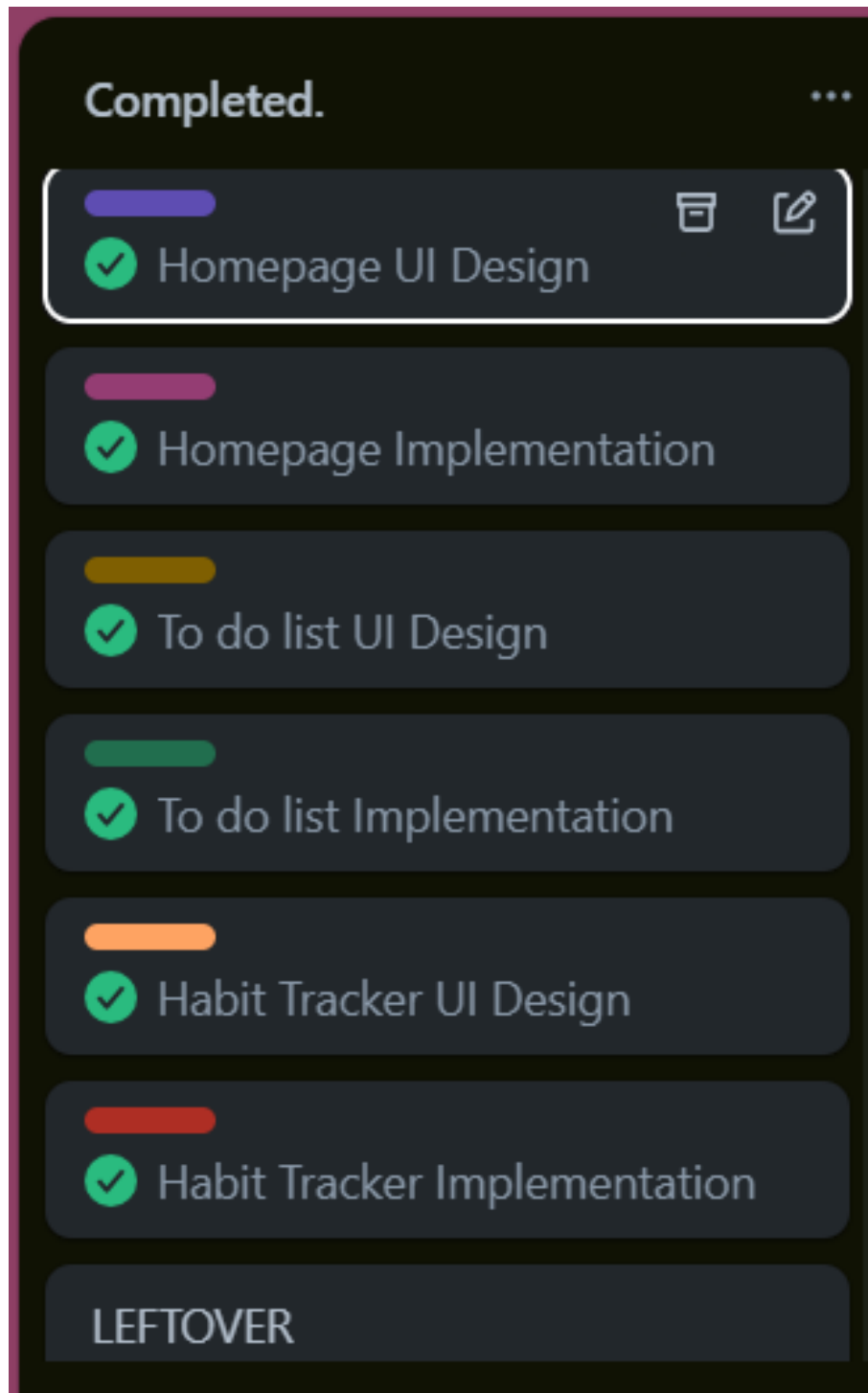


Figure 3: Snapshot 3: Sprint Completion

0.5 Design

In this section, we present the design components of our productivity and wellness application, which is structured around the main modules highlighted in the user stories: the To-Do List, Journal, and Monthly Overview. These designs help visualize the system's structure, data flow, interactions, and user engagement. The following diagrams are included:

| Diagram Type | Description |
|-------------------|---|
| Activity Diagrams | Diagrams illustrating the flow of control for the three main processes of the system: To-Do List, Journal, and Monthly Overview. |
| Use Case Diagram | A high-level representation of the system's functionality by showing interactions between users (actors) and the system's use cases. |
| Sequence Diagrams | Detailed interaction sequences for each major activity (To-Do List, Journal, Monthly Overview), demonstrating the flow of messages between objects. |
| Class Diagram | Structural blueprint of the system, displaying classes, their attributes and methods, and the relationships among them. |

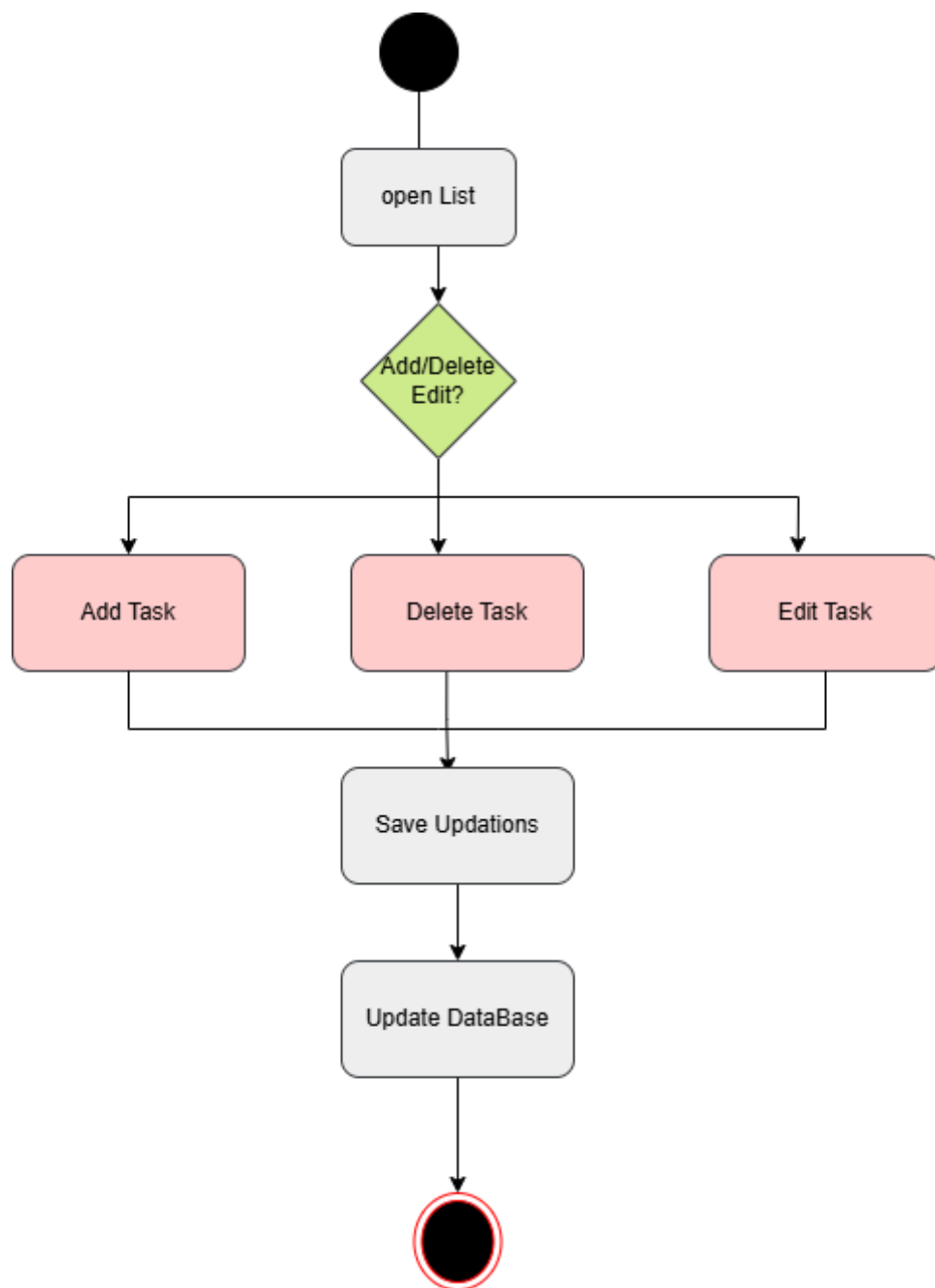


Figure 4: Activity Diagram for To Do List

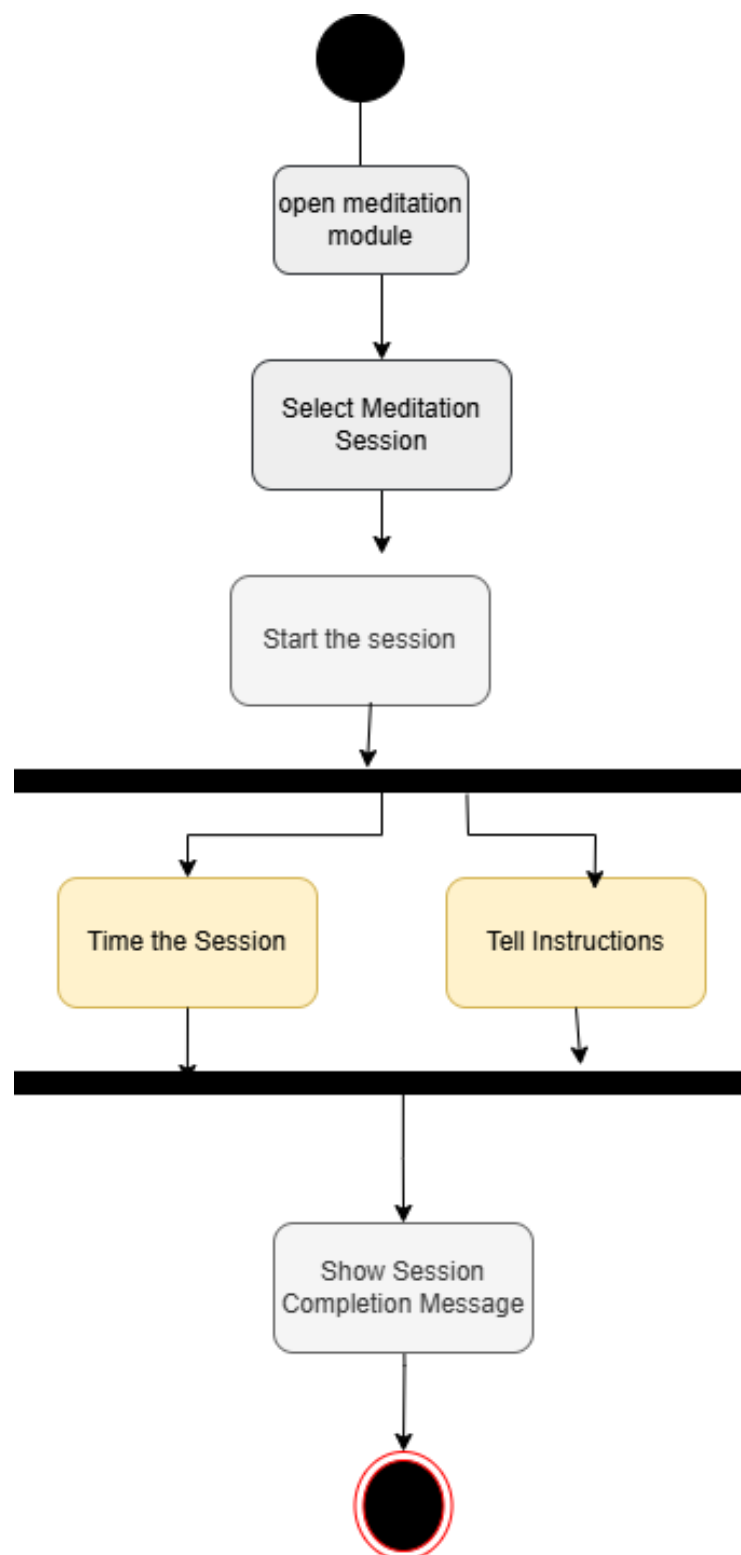


Figure 5: Activity Diagram for Meditation Page

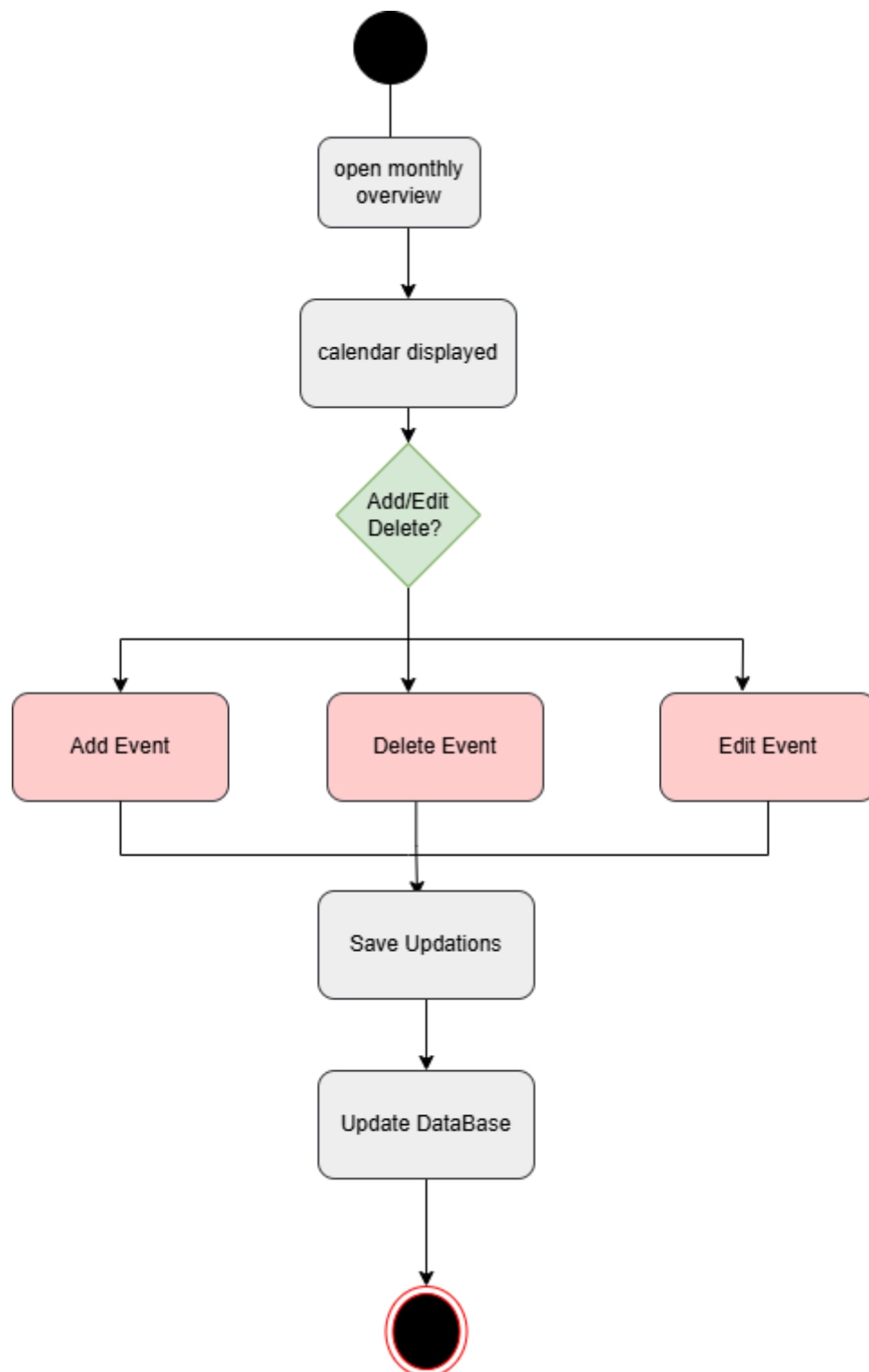


Figure 6: Activity Diagram for Monthly Overview

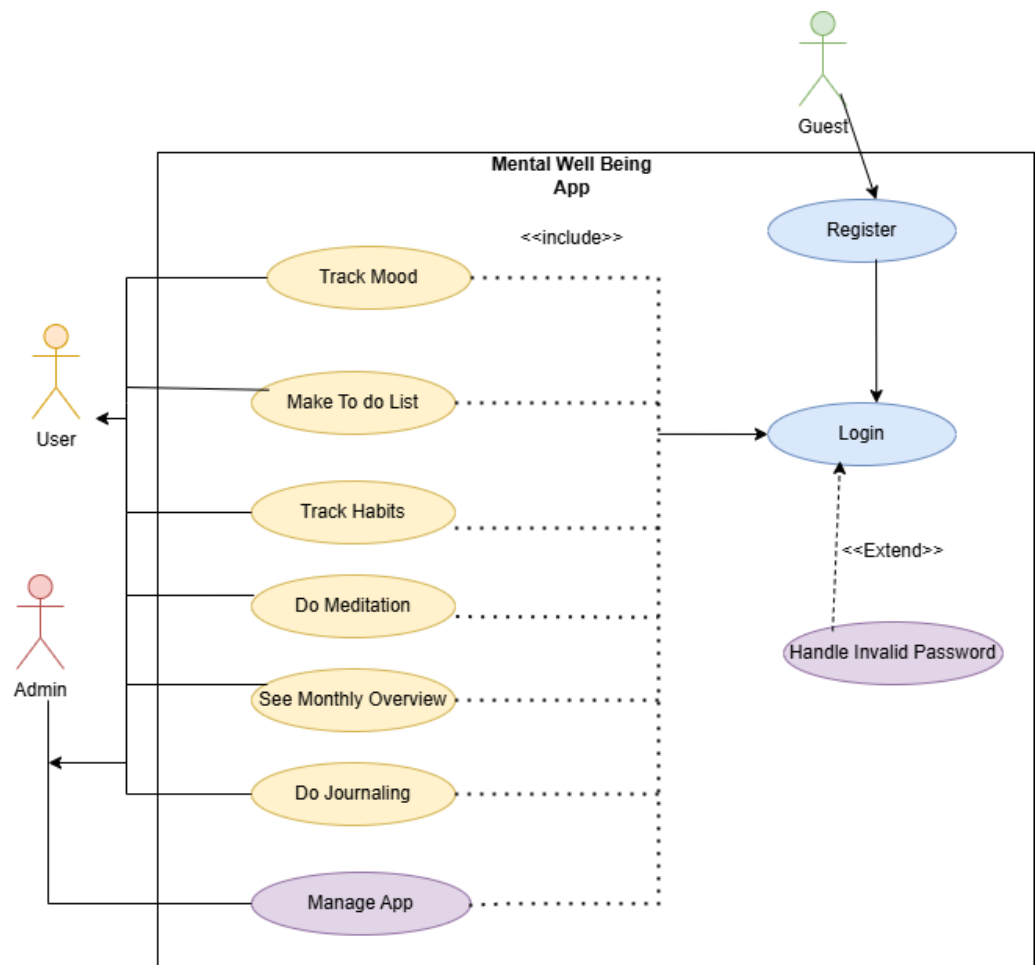


Figure 7: Use Case Diagram for the Entire System

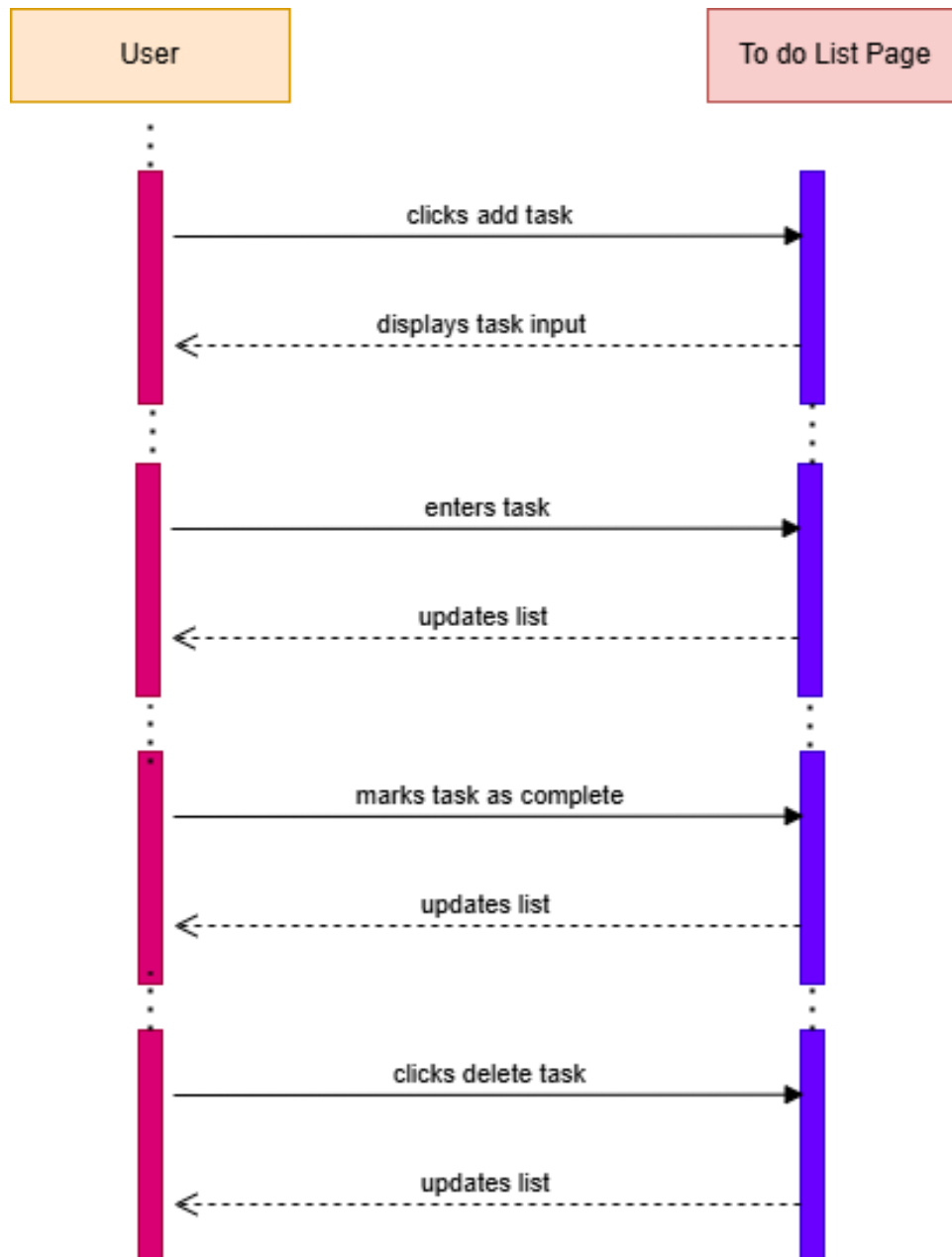


Figure 8: Sequence Diagram for To Do List Page

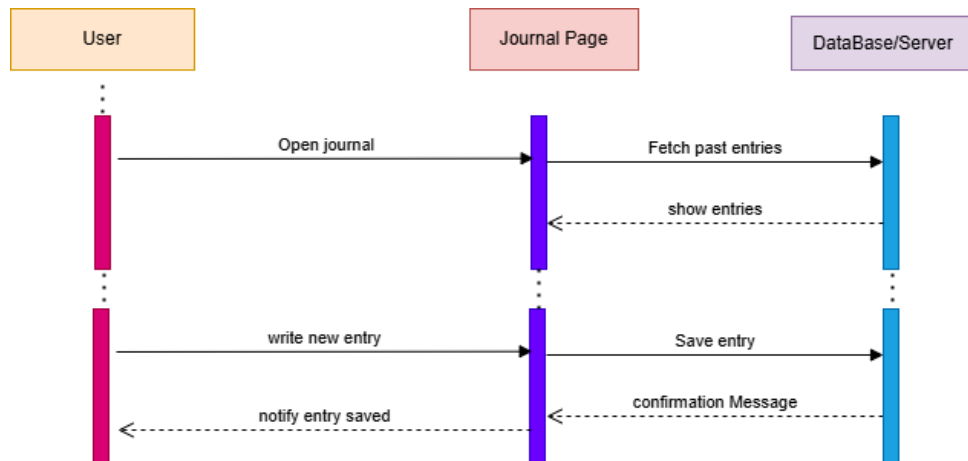


Figure 9: Sequence Diagram for Journal Page

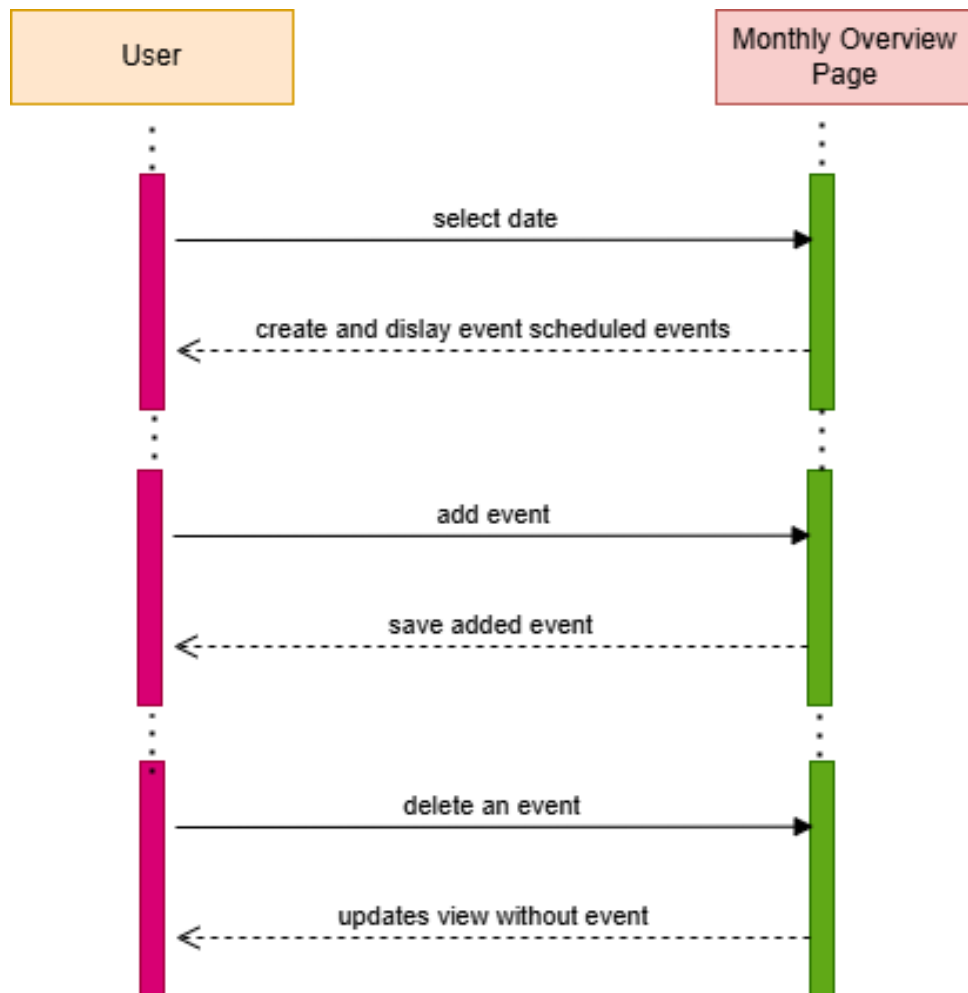


Figure 10: Sequence Diagram for Monthly Overview Page

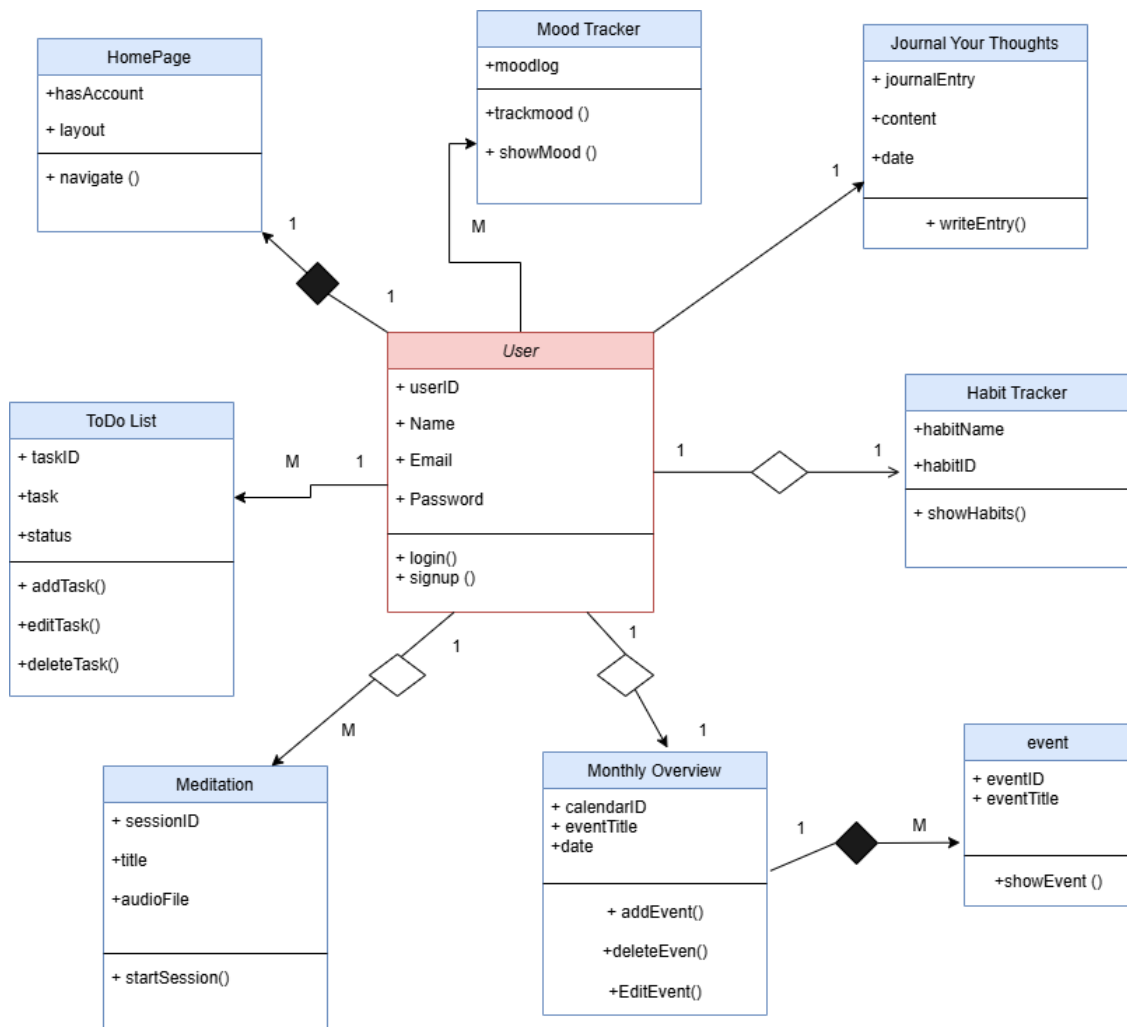


Figure 11: Class Diagram for System Architecture

0.6 Implementation

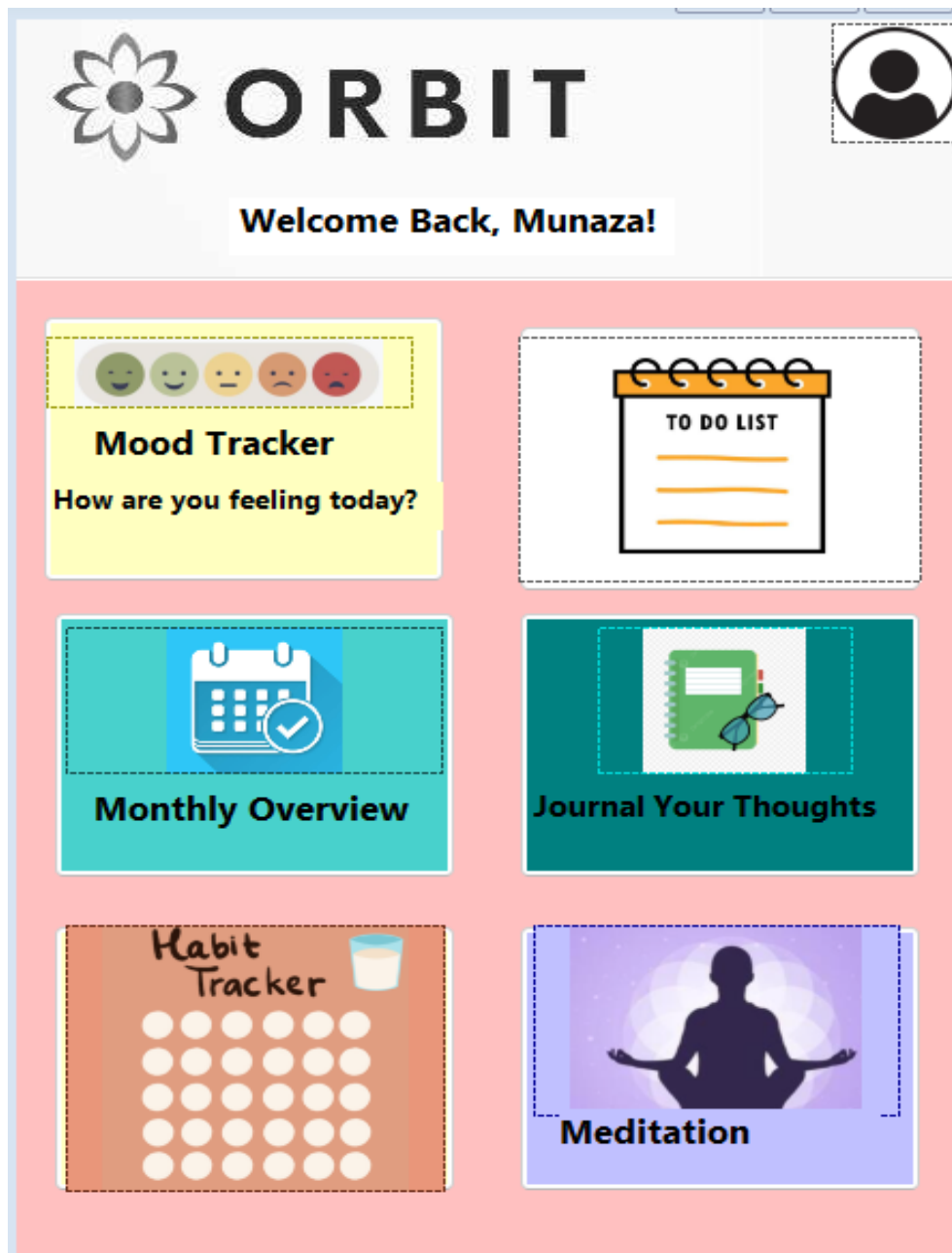


Figure 12: Iteration 2 - Home Page

[Home](#)

Todo List

Title

Description

Date and Time

New

Edit

Delete

Save

| | Title | Description | Date and Time |
|---|-------|-------------|---------------|
| * | | | |
| | | | |

Figure 13: Iteration 2 - To do List

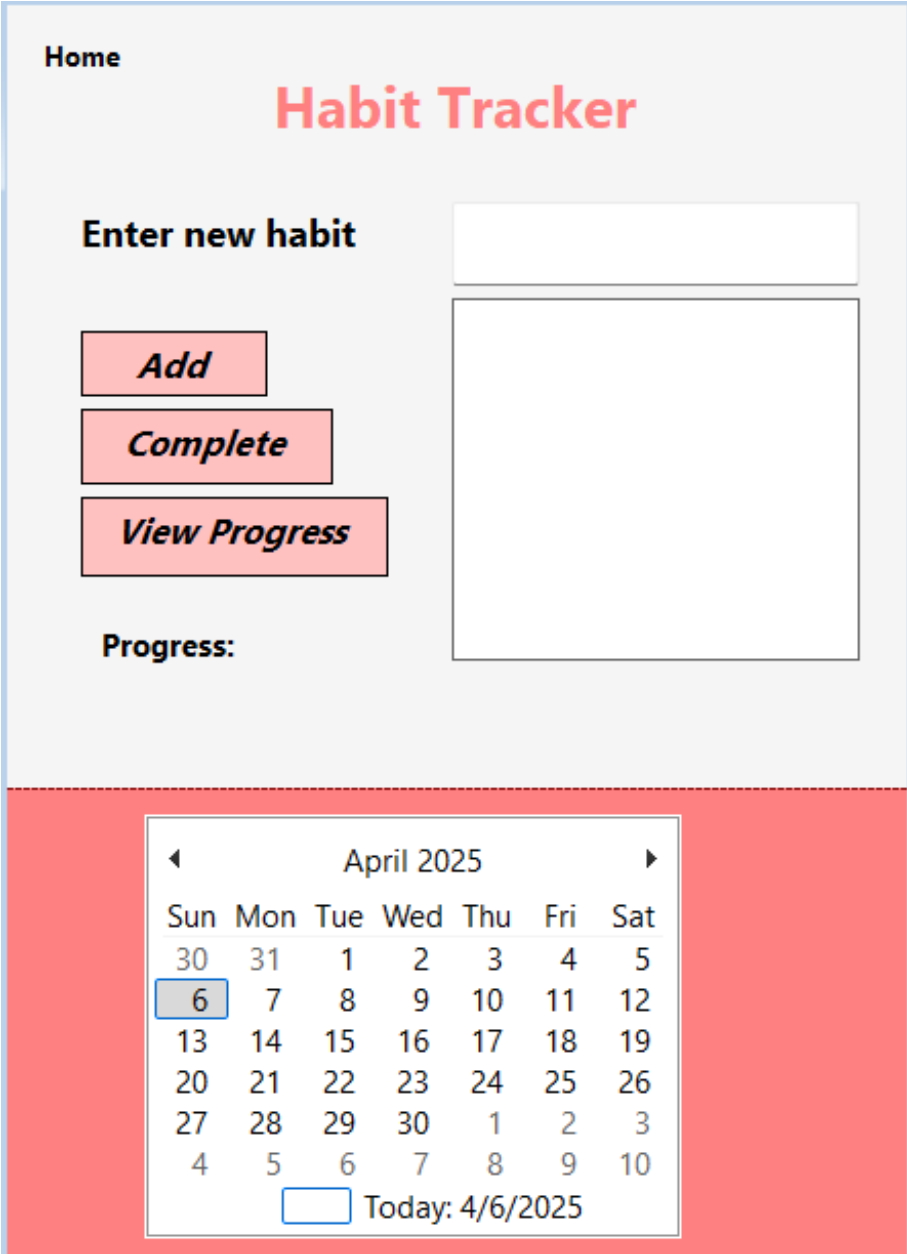


Figure 14: Iteration 2 - Habit Tarcker

0.7 Work Division

| Team Member | Roles and Responsibilities |
|--------------------------------|--|
| Dania Waseem(Team Lead) | <ul style="list-style-type: none">- Managed Trello (Scrum Board) and LaTeX documentation- Made Sequence Diagrams- Made Class Diagram- Made Use Case Diagrams- Made Activity Diagrams |
| Munaza Tariq | <ul style="list-style-type: none">- Designed Todo List UI-Implemented Todo List Page- Designed Habit Tracker UI- Implemented Habit Tracker UI |

Table 2: Work Division