Recreation and Wellness Intranet Project

CSIT883 / System Analysis and Project Management

Presented by: Karan Goel

Group 5

Date: 24 May 2024

Lab: Friday 16:30

University of Wollongong, Australia

UOW

The Team

Member	Role
Karan Goel	Team Leader
Banin Sensha Shrestha	Business Analyst
Dipesh Baral	Network Specialist
Kushal Rimal	Programmer/Analyst
Affan Mehmood	Programmer/Analyst

Agenda

1 • Introduction	**2** • Project Selection	**3** • Project Overview	**4** • Project Scope
5 • Project Schedule	**6** • Quality Assurance	**7** • Risk Management	**8** • Methodology
	9 • Diagrams/Exhibits	**10** • Conclusion and Lesson Learned	

1. Introduction - Problem Statement

Manage Your Health, Inc. (MYH) is a Fortune 500 global healthcare provider with 25,000 employees worldwide. The company aims to reduce internal costs, boost cross-selling, and improve collaboration using new web technologies.
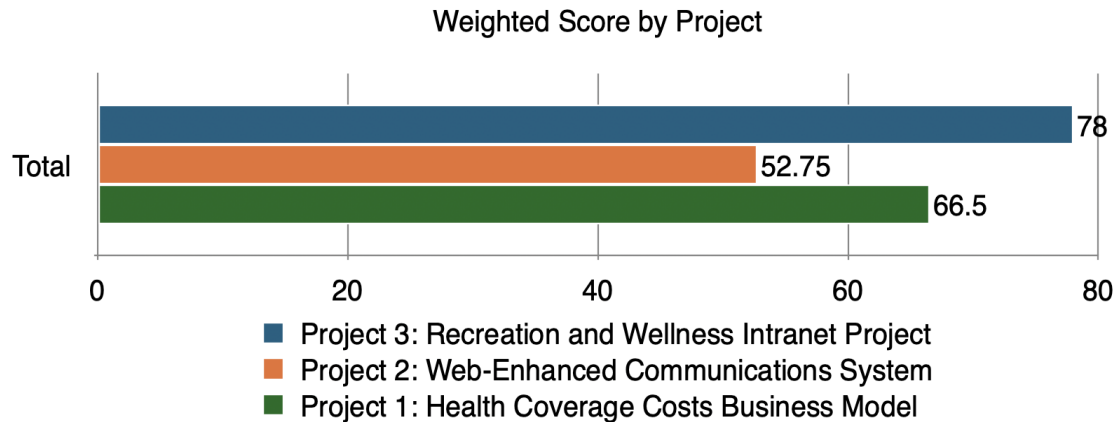
MYH develop a project to achieve its strategic objectives

Cost reduction

Business growth

Enhanced collaboration

1. Introduction - 3 Proposals

Name of project	Business strategies	Development Cost	Maintenance Cost	Financial Benefits	Other Benefits
Health Coverage Costs Business Model	Reduce Cost	$100,000	Very low	Saves $20 per employee per year for full-time employees over next 4 years. ~ $400,000/year for 20,000 full-time employees ~ $ 1,600,000	Usage of both old and new data to improve healthcare policies. Managers and analyst have access to data so they can analyze and plan expenses and health trends. Transparency in healthcare spending.
Web-Enhanced Communications System	Business Growth Develop	$3,000,000	20% of dev cost ~ $600,000/year	Saves $2,000,000 each year for three years after implementation	Improving ordering experience by adding suggestion, entering order, viewing status and history of orders, and electronic commerce capabilities.
Recreation and Wellness Intranet Project	Reduce Cost	$200,000	Very low	Saves $30 per employee per year for full-time employee over next four years ~ $600,000/year for 20,000 full-time employees	Company-sponsored recreational programs. Company-sponsored classes and programs to manage employee health. Offer incentives for people to join.

2. Project Selection – Proposal Analysis

Weighted Score by Project

- Project 3: Recreation and Wellness Intranet Project
- Project 2: Web-Enhanced Communications System
- Project 1: Health Coverage Costs Business Model

Weighted Score Model:
- **Recreation Wellness Intranet s**tandout with weighted score of **78 out of 100**

Financial Analysis:
- **Recreation Wellness Intranet** and **Health Coverage Cost** standout with **Returns greater than 1000%**

Project	NPV (Discount=8%)	ROI
Health Coverage Costs Business Model	$1,134,121.05	1500%
Web-Enhanced Communications System	$154,553.58	11%
Recreation and Wellness Intranet Project	$1,654,885.28	1100%

2. Project Selection – Selection Justification

Project 3: The Recreation and Wellness Intranet Project is the optimal choice.

IT DEMONSTRATES SUBSTANTIAL FINANCIAL RETURNS.
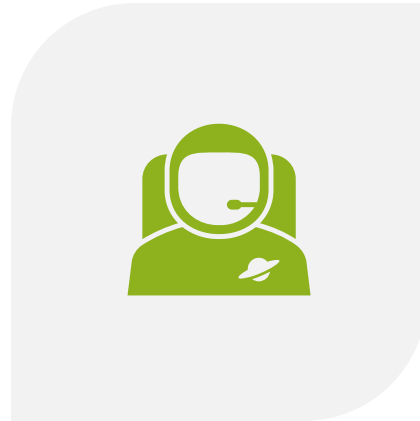
IT ALIGNS WITH TECHNOLOGICAL FEASIBILITY AND EXISTING IN-HOUSE EXPERTISE.

ITS STRATEGIC ALIGNMENT WITH ENHANCING EMPLOYEE ENGAGEMENT AND WELLNESS.

3. Project Overview

Project Manager: Tony Prince

Client: Manage Your Health Inc.

Duration: 6 months

Budget: $200,000

Benefits: $600,000 annually for four years

Market Assessment: Targets 20,000 full-time employees

Objectives:

Reduce healthcare costs by improving employee health.

Enhance employee productivity and morale through structured wellness programs.

Offer a tailored intranet solution to promote health management.

4. Scope - Project Stakeholders

👤	Employees	Direct beneficiaries, interested in wellness programs and facilities
🗂	Project Management Team	Responsible for planning, executing, and closing the project
👥	Human Resources	Interested in employee satisfaction and retention
🖥	IT Department	Responsible for supporting technology needs and system integration
➕	Health and Safety Officers	Ensure compliance with health and safety regulations
🩺	External Vendors	Provide necessary equipment or services for the wellness programs
💵	Senior Management	Strategic oversight and funding decisions

4. Scope - Project Requirements

Stakeholder Interviews

Develop a user-friendly interface for the wellness program application.

Enable customization of wellness programs to meet individual health goals.

Legal Requirements

Ensure compliance with data privacy laws in health management applications.
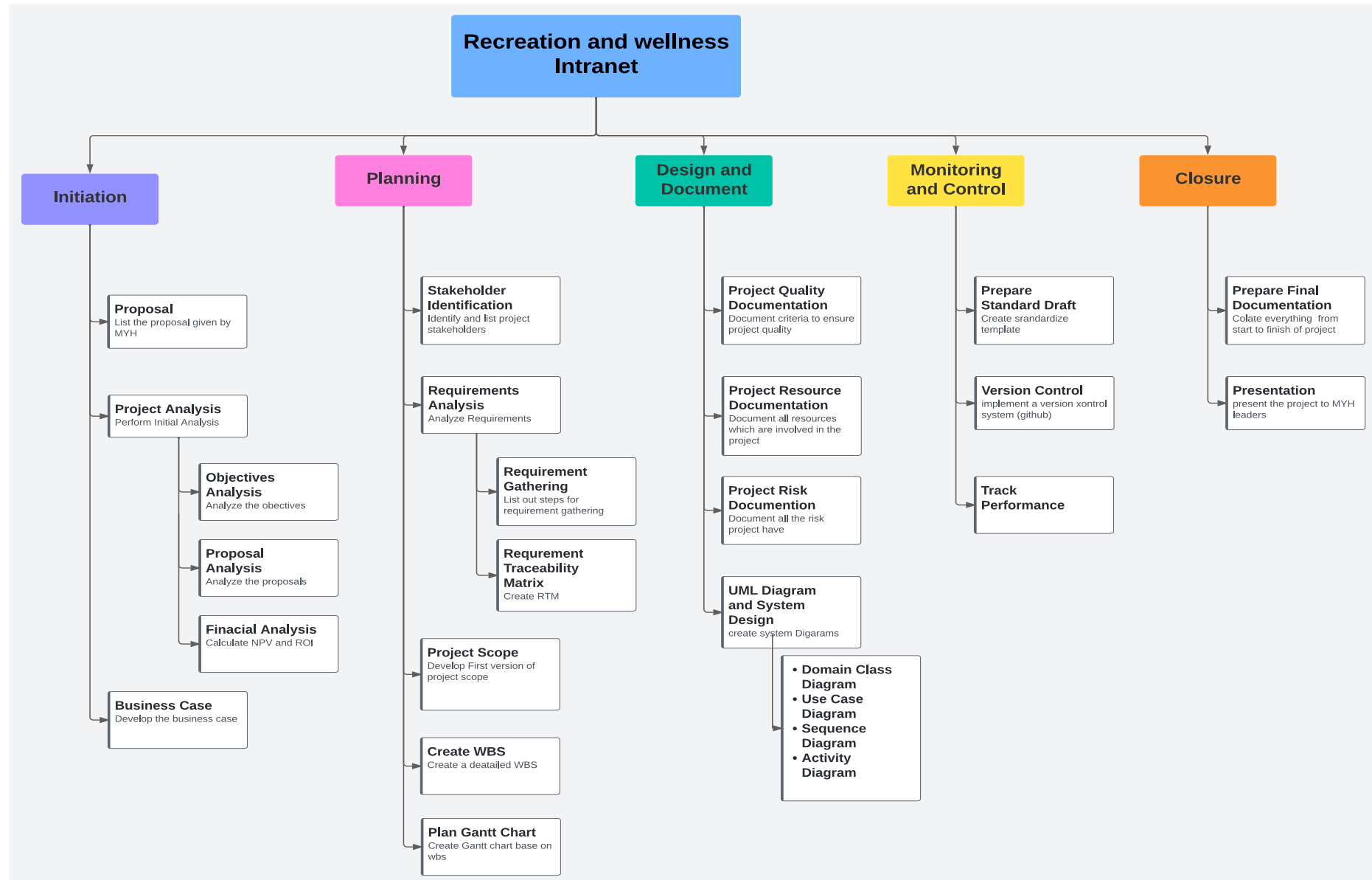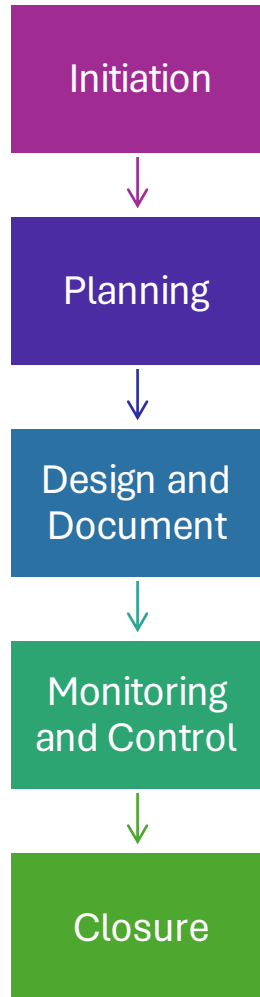
Employee Surveys

Implement a system for tracking employee participation in wellness activities.

Create a feedback mechanism for users to report issues and suggestions.

Focus Groups

Integrate third-party services for mental health resources.

5. Project Schedule – Work Breakdown

Initiation

Planning

Design and Document

Monitoring and Control

Closure

Recreation and wellness Intranet

Initiation

Proposal
List the proposal given by MYH

Project Analysis
Perform Initial Analysis

Objectives Analysis
Analyze the obectives

Proposal Analysis
Analyze the proposals

Finacial Analysis
Calculate NPV and ROI

Business Case
Develop the business case

Planning

Stakeholder Identification
Identify and list project stakeholders

Requirements Analysis
Analyze Requirements

Requirement Gathering
List out steps for requirement gathering

Requrement Traceability Matrix
Create RTM

Project Scope
Develop First version of project scope

Create WBS
Create a deatailed WBS

Plan Gantt Chart
Create Gantt chart base on wbs

Design and Document

Project Quality Documentation
Document criteria to ensure project quality

Project Resource Documentation
Document all resources which are involved in the project

Project Risk Documention
Document all the risk project have

UML Diagram and System Design
create system Digarams

- **Domain Class Diagram**
- **Use Case Diagram**
- **Sequence Diagram**
- **Activity Diagram**

Monitoring and Control

Prepare Standard Draft
Create srandardize template

Version Control
implement a version xontrol system (github)

Track Performance

Closure

Prepare Final Documentation
Colate everything from start to finish of project

Presentation
present the project to MYH leaders

5. Project Schedule – Work Schedule

#	Task	Duration	Start	Finish	Predecessor
1	⊟**Initiation**	10 days?	18/03/24 8:00 …	29/03/24 5:00 PM	
2	Review Proposals	1 day?	18/03/24 8:00 AM	18/03/24 5:00 PM	
3	Project Kickoff Milestone	1 day?	19/03/24 8:00 AM	19/03/24 5:00 PM	2
4	⊟**Project Analysis**	4 days?	20/03/24 8:00 …	25/03/24 5:00 PM	3
5	Objective Analysis	1 day?	20/03/24 8:00 AM	20/03/24 5:00 PM	
6	⊟**Proposal Analysis**	2 days?	21/03/24 8:00 …	22/03/24 5:00 PM	5
7	Create Weighted Model	2 days?	21/03/24 8:00 AM	22/03/24 5:00 PM	
8	⊟**Financial Analysis**	2 days?	21/03/24 8:00 …	22/03/24 5:00 PM	5
9	Calculate NPV	2 days?	21/03/24 8:00 AM	22/03/24 5:00 PM	
10	Calculate ROI	2 days?	21/03/24 8:00 AM	22/03/24 5:00 PM	
11	Budger Milestone	1 day?	25/03/24 8:00 AM	25/03/24 5:00 PM	6;8
12	⊟**Business Case**	4 days?	26/03/24 8:00 …	29/03/24 5:00 PM	11
13	Summarize Project	1 day?	26/03/24 8:00 AM	26/03/24 5:00 PM	
14	Prepare Business Case Document	4 days	26/03/24 8:00 AM	29/03/24 5:00 PM	
15	⊟**Planning**	12 days?	1/04/24 8:00 AM	16/04/24 5:00 PM	1
16	Stakeholder Identification	1 day?	1/04/24 8:00 AM	1/04/24 5:00 PM	
17	⊟**Requirement Analysis**	4 days?	1/04/24 8:00 AM	4/04/24 5:00 PM	
18	Requirement Gathering	4 days?	1/04/24 8:00 AM	4/04/24 5:00 PM	
19	Requirement Tracebility Matrix	4 days?	1/04/24 8:00 AM	4/04/24 5:00 PM	
20	⊟**Project Scope**	4 days?	5/04/24 8:00 AM	10/04/24 5:00 PM	17
21	Write first Project Scope	4 days?	5/04/24 8:00 AM	10/04/24 5:00 PM	
22	WBS	2 days?	11/04/24 8:00 AM	12/04/24 5:00 PM	20
23	Gantt Milestone	2 days?	15/04/24 8:00 AM	16/04/24 5:00 PM	22
24	Planning Milestone	0 days?	16/04/24 5:00 PM	16/04/24 5:00 PM	23
25	⊟**Design and Document**	11 days?	17/04/24 8:00 …	1/05/24 5:00 PM	24
26	⊟**Project Quality Documentation**	5 days?	17/04/24 8:00 …	23/04/24 5:00 PM	
27	Create Petro Chart	5 days?	17/04/24 8:00 AM	23/04/24 5:00 PM	
28	⊟**Project Resource Documentation**	5 days?	17/04/24 8:00 …	23/04/24 5:00 PM	
29	Responsibilty Matrix	5 days?	17/04/24 8:00 AM	23/04/24 5:00 PM	
30	⊟**Project Risk Documentation**	5 days?	17/04/24 8:00 …	23/04/24 5:00 PM	
31	Positive and Negative Risk	5 days?	17/04/24 8:00 AM	23/04/24 5:00 PM	
32	Risk Action	5 days	17/04/24 8:00 AM	23/04/24 5:00 PM	
33	⊟**UML Diagram and System Design**	5 days?	24/04/24 8:00 …	30/04/24 5:00 PM	26;28;30
34	Domain Class Diagram	5 days?	24/04/24 8:00 AM	30/04/24 5:00 PM	
35	Use Case Diagram	5 days?	24/04/24 8:00 AM	30/04/24 5:00 PM	
36	Sequence Diagram	5 days?	24/04/24 8:00 AM	30/04/24 5:00 PM	
37	Activity Diagram	5 days?	24/04/24 8:00 AM	30/04/24 5:00 PM	
38	Design Milestone	1 day?	1/05/24 8:00 AM	1/05/24 5:00 PM	33
39	**Monitoring and Control**	7 days?	17/04/24 8:00 …	25/04/24 5:00 PM	24
40	⊟**Prepare First Draft**	6 days?	17/04/24 8:00 …	24/04/24 5:00 PM	
41	Latex Template	6 days?	17/04/24 8:00 AM	24/04/24 5:00 PM	
42	⊟**Version Control**	1 day?	25/04/24 8:00 …	25/04/24 5:00 PM	40
43	Setup Github	1 day?	25/04/24 8:00 AM	25/04/24 5:00 PM	
44	Execution,Testing and Quality Milestone	1 day?	26/04/24 8:00 AM	26/04/24 5:00 PM	43
45	⊟**Closure**	16 days?	2/05/24 8:00 AM	23/05/24 5:00 PM	38;44
46	Prepare Final Document	10 days?	2/05/24 8:00 AM	15/05/24 5:00 PM	
47	Presentation	6 days?	16/05/24 8:00 AM	23/05/24 5:00 PM	46
48	Monitoring and Promotion Milestone	0 days?	23/05/24 5:00 PM	23/05/24 5:00 PM	47

Milestones

1. Project Kick-Off
2. Budget Approval
3. Gantt Chart Creation
4. Planning Phase Completion
5. Execution Phase Completion
6. Testing and Quality Assurance
7. Design Phase Completion
8. Monitoring and Promotion

5. Project Schedule – Gantt Chart
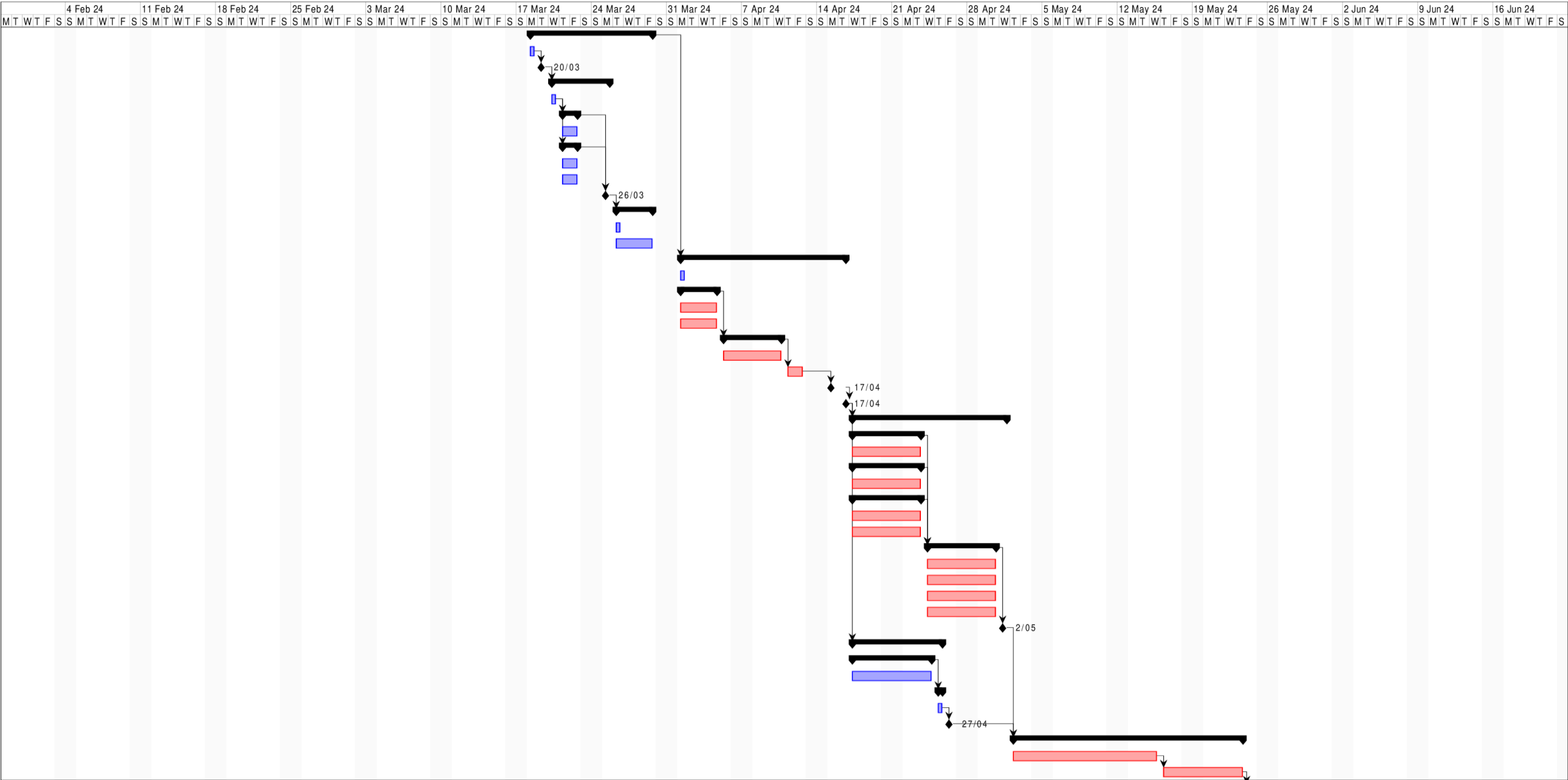
6. Quality Assurance

Interface Optimization

Conduct iterative usability tests.

Gather and incorporate user feedback to refine the system's interface.

Aim to enhance the overall user experience.

Security Measures

Perform regular security assessments.

Conduct vulnerability scans to ensure protection against potential threats and breaches.

Performance Monitoring

Utilize performance monitoring tools to track system responsiveness and uptime.

Monitor overall performance metrics to ensure system reliability.

Health Outcomes Evaluation

Evaluate the system's impact on health outcomes by analyzing relevant health indicators.

Compare health data from before and after the system's implementation.

Feedback Analysis

Analyze feedback data to identify trends and address user concerns.

Continuously improve the system based on user input and feedback analysis

7. Risk Management

Mitigate

- **Key Team Members Leaving**
- **Technical Challenges**
- **Insufficient Employee Incentives**

Accept

- **Budget Overruns**
- **Minor User Dissatisfaction**

Transfer

- **Security Breaches**

Avoid

- **Scope Creep**
- **Uncooperative Users**
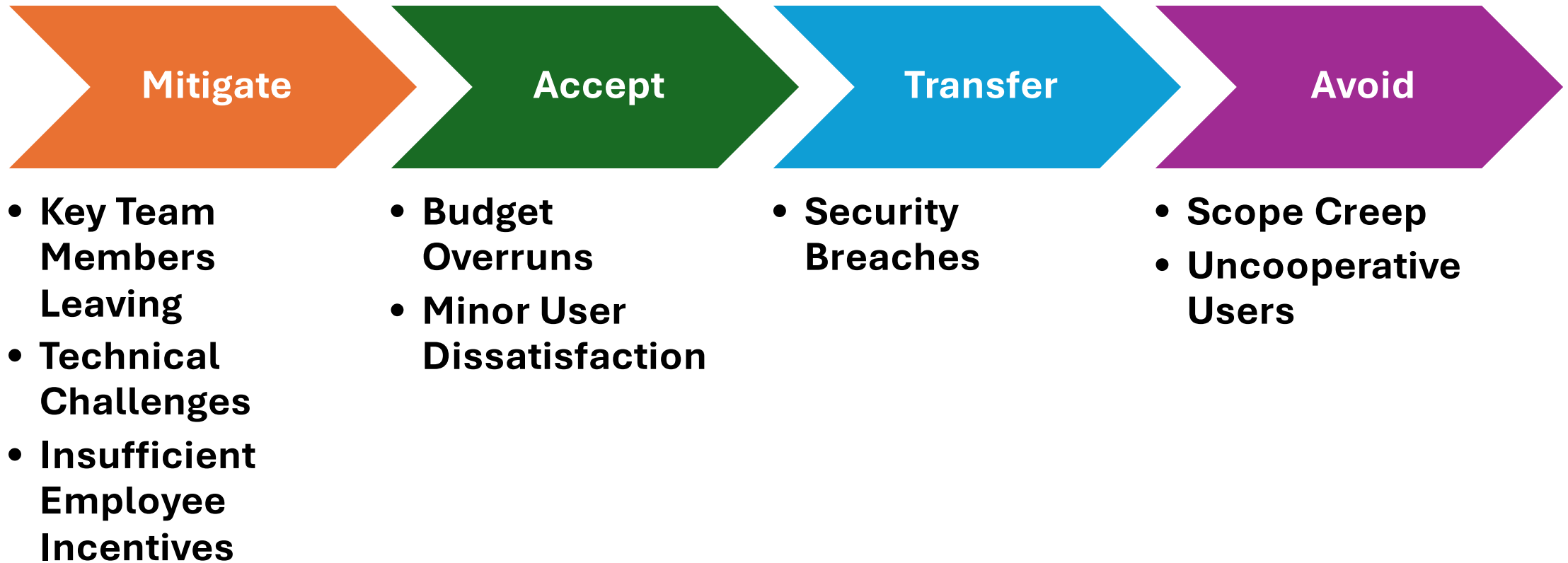
8. Methodology

Weekly Meetings

Scrum

Github board

Reports

Developer Tools

Figma

Latex

Open Libre

Lucid Chart

UMLet

Microsoft Suite

Operations

GitHub

OneDrive
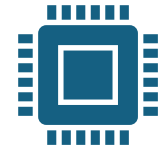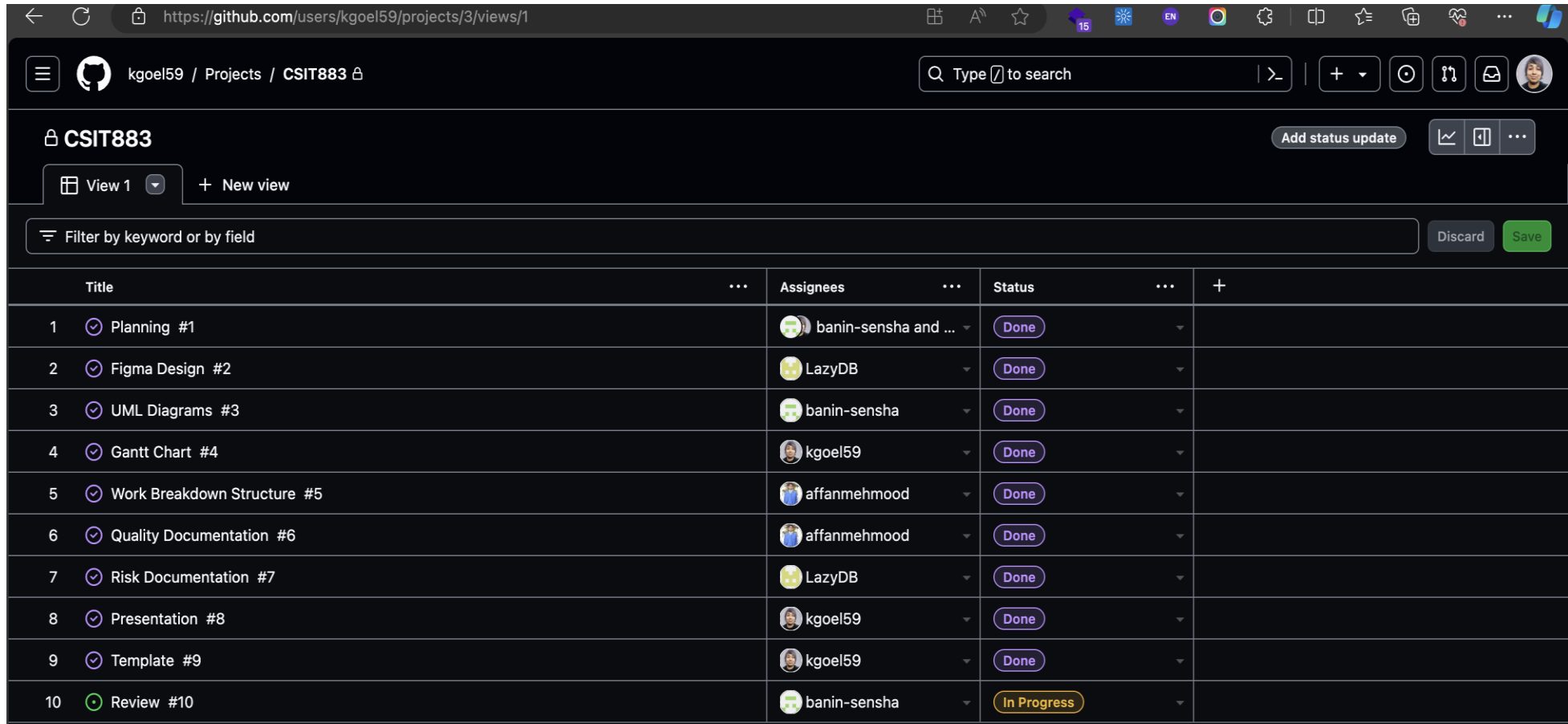
Supporting Tools

Whatsapp

Outlook

8. Methodology – Assigning Tasks

GitHub Dashboard for Tasks and Assignee

CSIT883 (github.com)

8. Methodology – Version Control

GitHub Code Repo

8. Methodology – Tracking and Monitoring

GitHub Insights

Progress Tracking

Commit Tracking
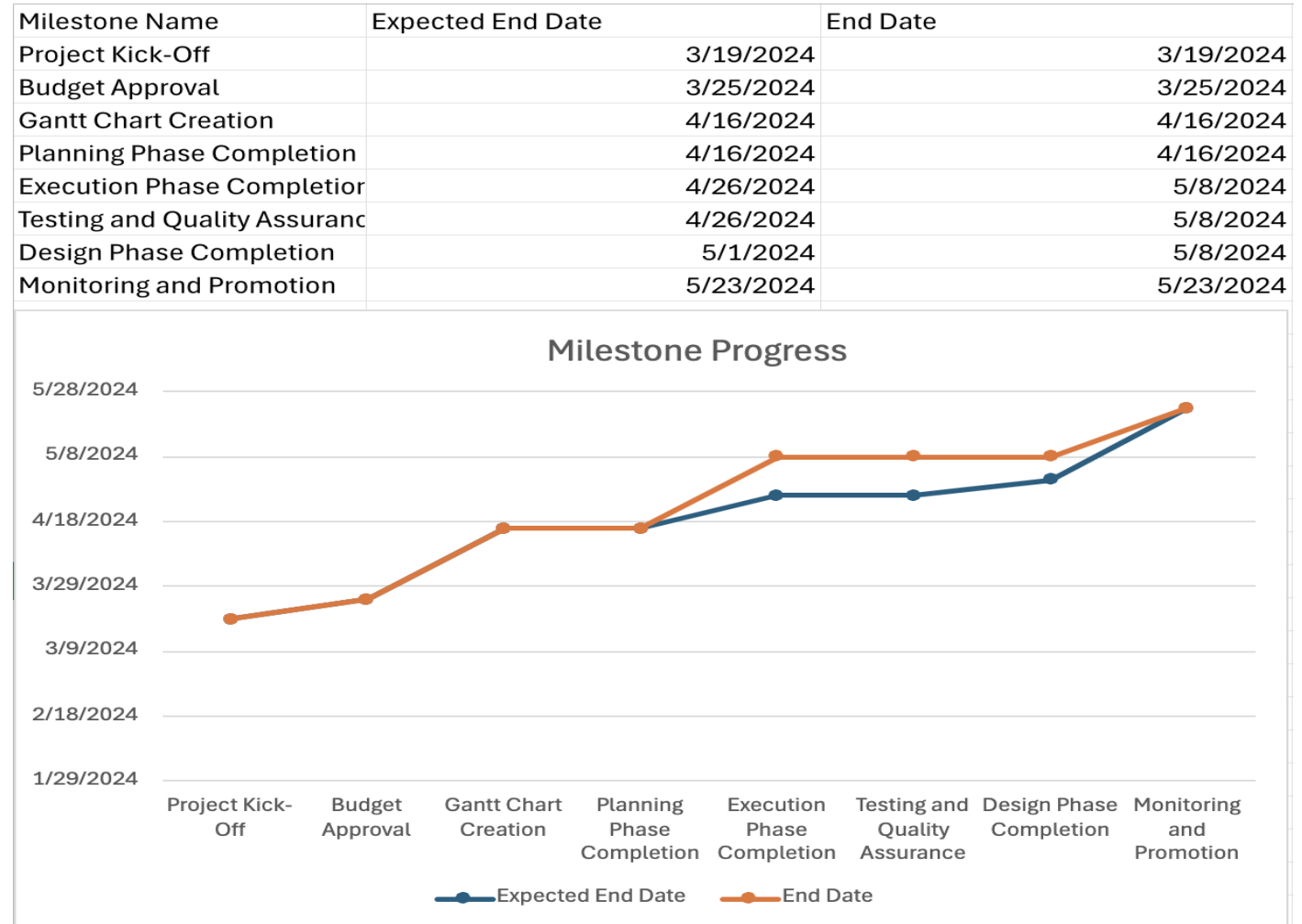

CSIT883 (github.com)

8. Methodology – Tracking and Monitoring

Microsoft Excel

Quantitative Tracking of Milestones

| Milestone Name	Expected End Date	End Date
Project Kick-Off	3/19/2024	3/19/2024
Budget Approval	3/25/2024	3/25/2024
Gantt Chart Creation	4/16/2024	4/16/2024
Planning Phase Completion	4/16/2024	4/16/2024
Execution Phase Completion	4/26/2024	5/8/2024
Testing and Quality Assurance	4/26/2024	5/8/2024
Design Phase Completion	5/1/2024	5/8/2024
Monitoring and Promotion	5/23/2024	5/23/2024

Milestone Progress

9. Exhibits

- Domain Model Class Diagram

- Activity Diagram

- Use Case Diagram

- Sequence Diagram

- Figma Designs
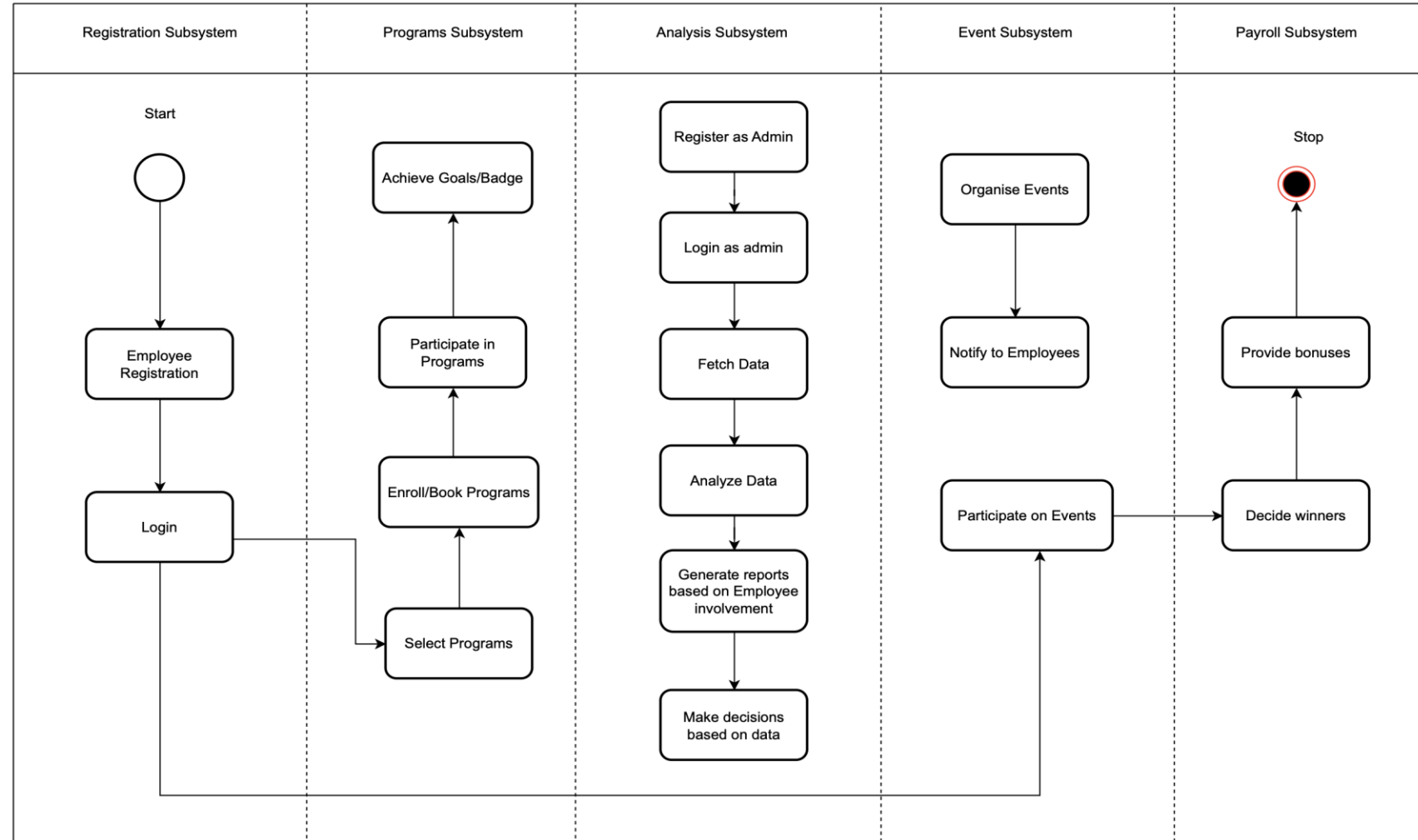
UML Diagrams

Domain Model Class Diagram

- Admin, Employee, and Account classes for user accounts and management.

- Employees can participate in Programs and earn Bonuses.

- Recreational and Health are subclasses of Programs.

- Winners is a class that is related to the Event class, winners are determined by Events.
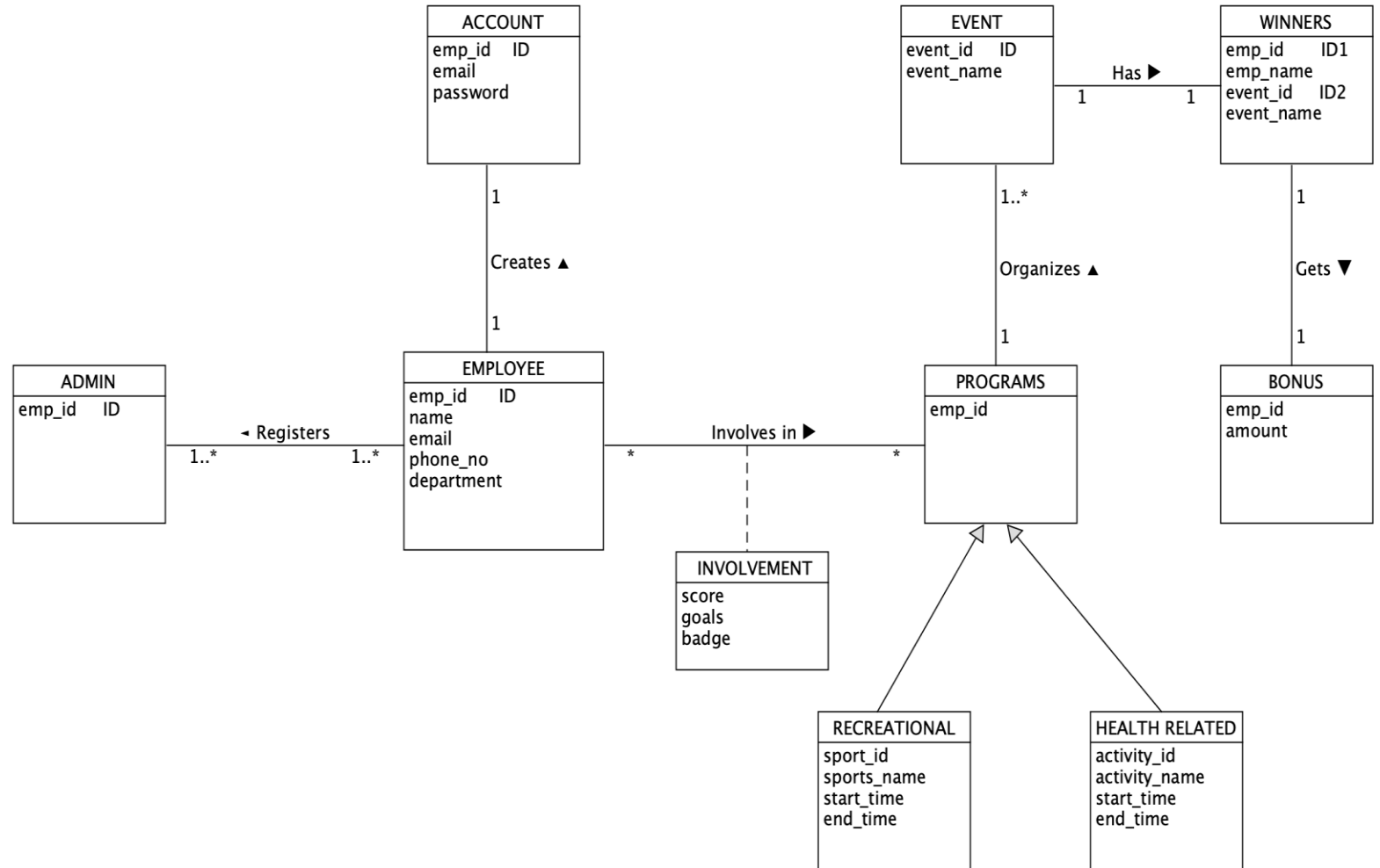
UML Diagrams

Activity Diagram

- The system starts with an employee registering for an account.

- Employee can choose to participate in programs or events.

- Employees can enroll in programs and book their slots.

- An analysis subsystem is also part of the system which generates reports based on employee involvement.
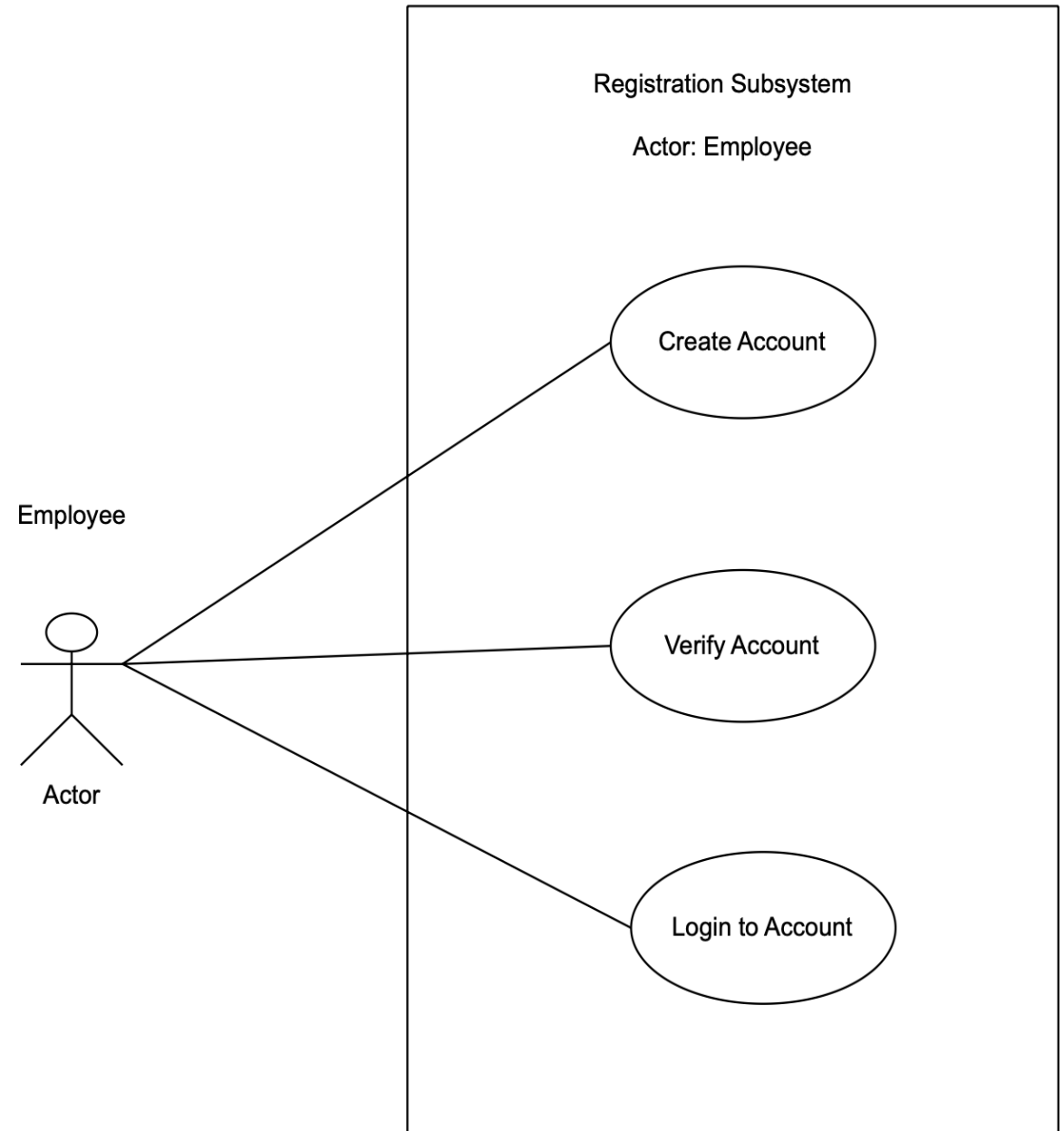
UML Diagrams

Use Case Diagram of Registration Subsystem

The diagram shows these use cases:
Create Account
Verify Account
Login to Account

Registration Subsystem

Actor: Employee

Create Account
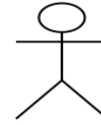
Verify Account

Login to Account

Employee
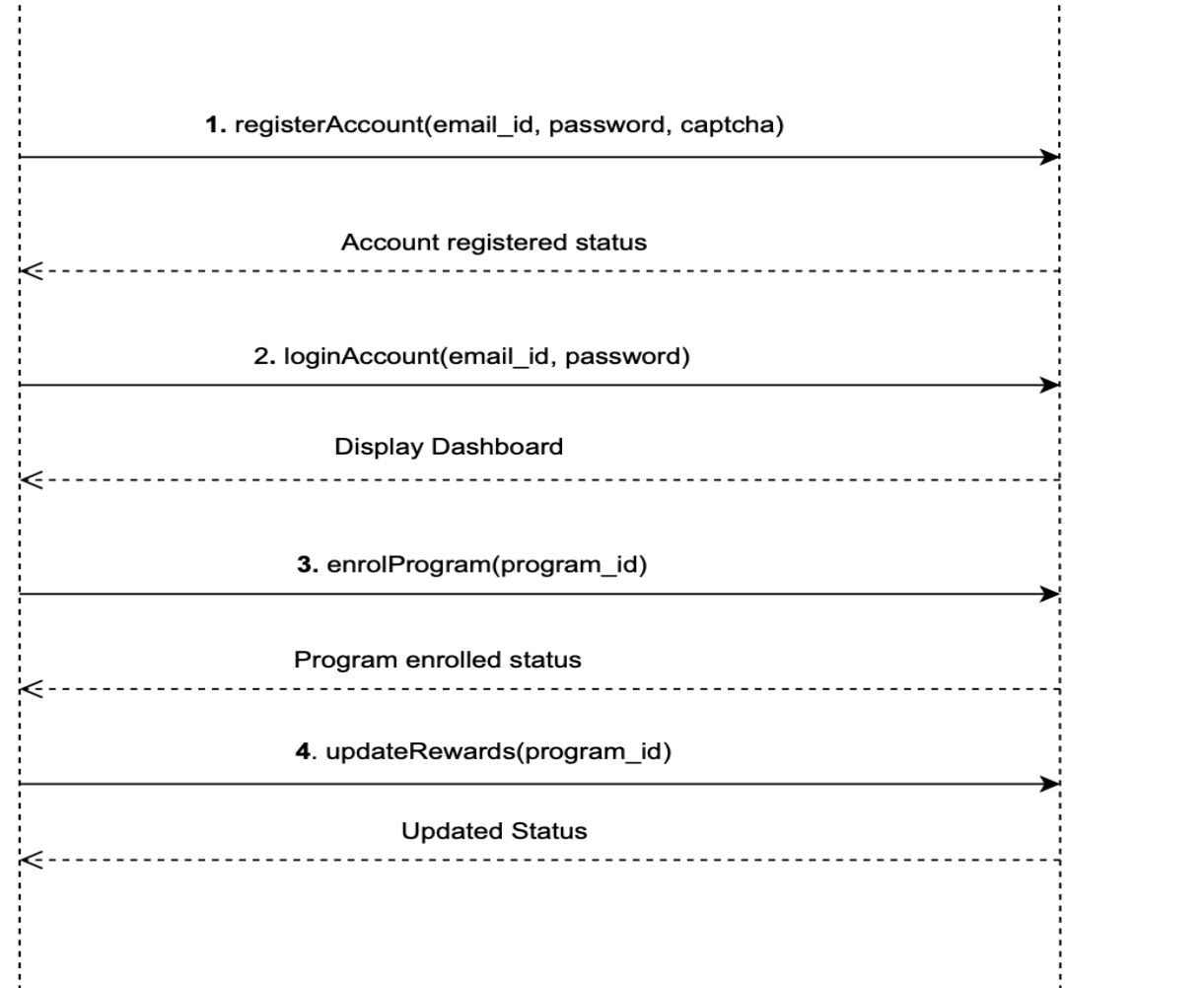
Actor

UML Diagrams

Sequence Diagram

- Employee registering an account
- The system then verifies the employee's email address by sending a verification email.

- The employee can then login to the system using their email address and password.
- The system verifies the employee's email address again.

- If the email verification is successful, the system displays the employee dashboard.
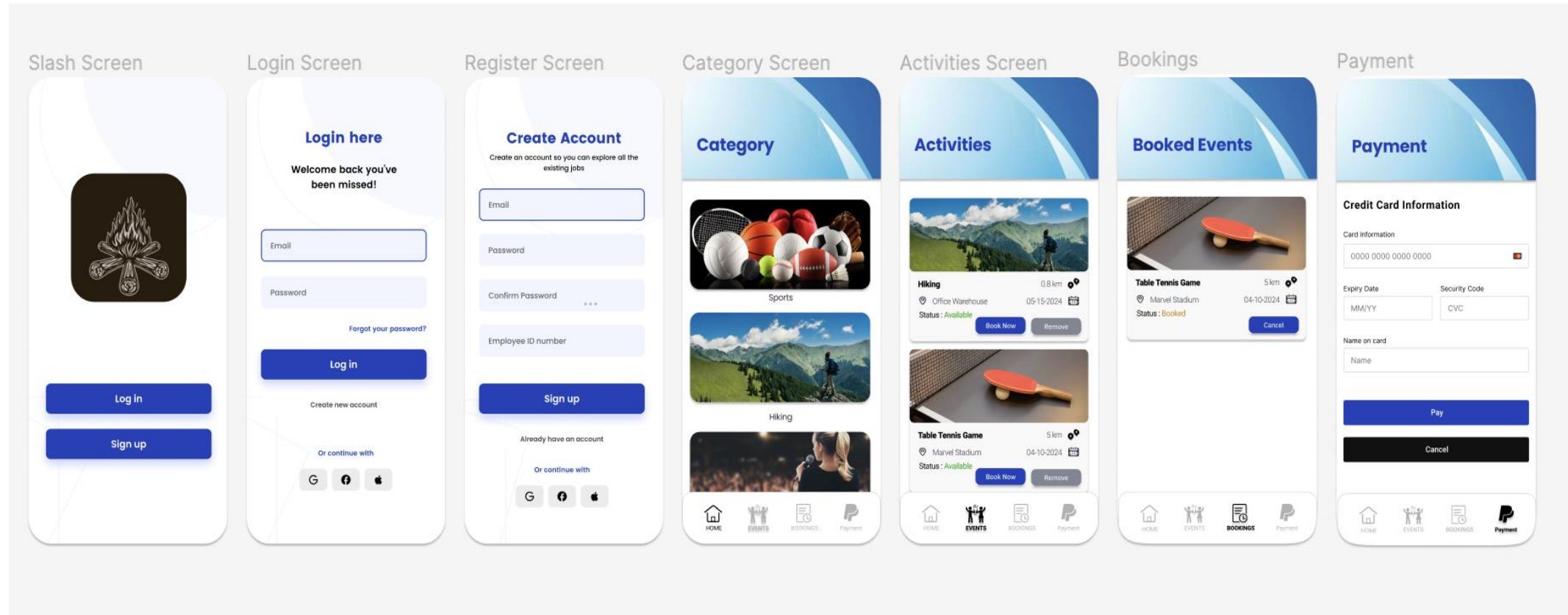
Employee

Actor

:System

1. registerAccount(email_id, password, captcha)

Account registered status

2. loginAccount(email_id, password)

Display Dashboard

3. enrolProgram(program_id)

Program enrolled status

4. updateRewards(program_id)

Updated Status

Figma Design

10. Conclusion

Lessons Learned

Effective Communication: Using a variety of communication channels (email, meetings, phone calls) to keep stakeholders informed and engaged.

Detailed Planning: Creating and continuously monitoring a detailed project plan helps in staying on track and avoiding delay.

Measuring Success: Tracking and measuring the success of the project helps in identifying areas of improvement and demonstrating value to stakeholders.

10. Conclusion

Challenges Faced

Time Underestimation: Misjudging the time required for development, leading to last-minute efforts and stress to meet deadlines.

Team Not Familiar with Tools: Lack of familiarity with new tools caused delays and required additional training, which incurred extended project timelines.

Closing Note

We are thankful to University of Wollongong for giving us an opportunity to work on this Project.

Thank You.