PROJECT MANGEMENT TRACKER

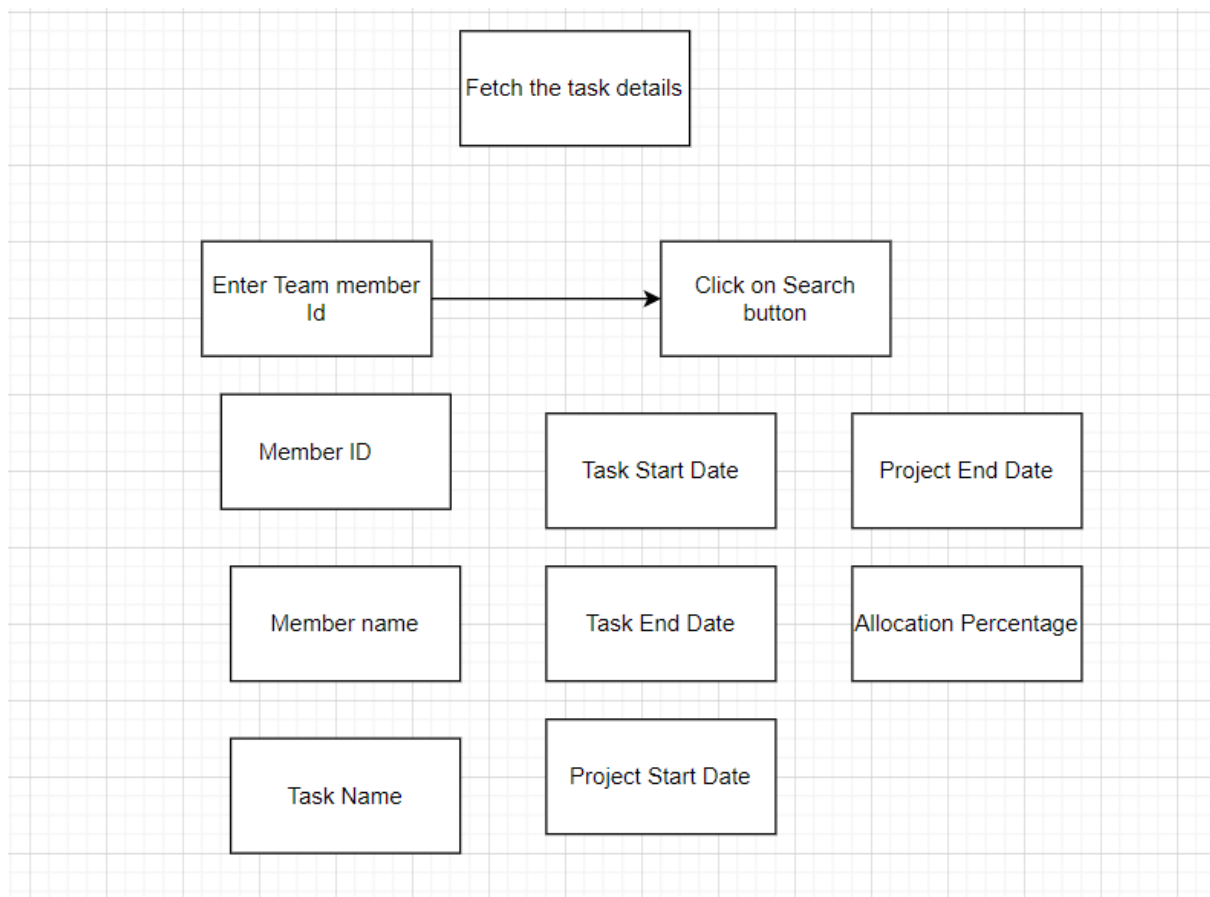# CONTENTS

1 PROBLEM STATEMENT

Project Management Tracker Application is microservice based Cloud Native Application. The Main purpose of **Project Management Tracker** is to provide the ability to add team members with skill set, assign a task and allocate them to the project:

- ✓ Put a new member to the team.
- ✓ Assign the task to each member.
- ✓ Update the allocation percentage.
- ✓ Enlisting of assigned task for each member
- ✓ Enlisting of all members from a team along with complete profile details.

The scope includes developing the application using tool chain mentioned below.

2 PROPOSED APPLICATON WIREFRAME

Below is the wireframe for reference.

3   TOOL CHAIN

Competency	Skill	Skill Detail
Products & Frameworks	Presentation	Angular/React
		Javascript/Typescript
		Bootstrap

4   BUSINESS REQUIREMENTS:

Below are the user stories for the given problem statement

User Story #	User Story Name	User Story
US_01	Adding new member to the project	As a manager I can add a new member to my project team *While adding the member, following information is required.* ➢ Team Member Name ➢ MemberID ➢ Number of years of experience ➢ Skillset ➢ Additional description about current profile ➢ Project start date ➢ Project end date ➢ Allocation percentage Constraints: 1. Only if the number of experiences is greater than 4, the member can be part of this project 2. Member should possess at least 3 skillsets Validations: 1. All the fields are mandatory 2. Project end date should be greater than project start date 3. Allocation should be provided as percentage
US_02	Fetching all the team member details	As a manager, I should be able to fetch all my team member details Considerations: 1. Fetch all the complete profile details of the team members 2. Sort the list in the descending order of number of experiences
US_03	Assigning a task	As a manager, I should be able to assign a new task to each team member When creating a new task, following information is required: 1. Member Name

		2. Member Id 3. Task Name 4. Deliverables 5. Task Start Date 6. Task End Date Pre-condition: Member Id and Member name should be retrieved from the database Constraints: 1. If task end date is greater than Project End date, then custom exception should be thrown 2. Task End date should be greater than task start date
US_04	Viewing the task	As a team member, I should be able to view the assigned task Considerations: • While fetching the task details the API must return the project details also (Project Start Date, Project End date, Allocation percentage)
US_05	Updating the allocation percentage	As a manager, I should be able to update the allocation percentage Constraints: 1. If project end date is lesser than the current date, then the allocation percentage must be updated as 0. If the project end date is greater than the current date, then the allocation percentage must be 100%

5   FRONTEND

Develop the frontend for all the user stories (Implementation as follows)

    I. Implement using either Angular or React.
    II. Implement any one of the Gang of four Patterns to compose data using typescript before presenting the same on UI.
    III. Implement at least one approach for UI performance consideration.
    IV. Identify and Implement client-side Optimization Techniques for Bootstrap.
    V. Implement the prevention of XSS cross-site security threats for frontend application.
    VI. Implement using proper SOLID design principles
    VII. Perform unit and integration testing for the front-end application

6 METHODOLOGY

6.1 AGILE

1. As an application developer, use project management tool along to update progress as you start implementing solution.
2. As an application developer, the scope of discussion with mentor is limited to:
   a. Q/A
   b. New Ideas, New feature implementations and estimation.
   c. Any development related challenges
   d. Skill Gaps
   e. Any other pointers key to UI/UX and Middleware Development