**1. Prepare Technical Documentation**

**Introduction of Project:**

* **Project Name:** RestApiProject
* **Overview:** This project is a web-based application that allows users to view, create, and manage user profiles. The backend is built using Spring Boot, while the frontend is developed using Angular. The system allows users to add new users, retrieve a list of users, and view detailed information for a specific user."

**Technical Documentation:**

**Flowchart:**

System send request to backend

Data exist?

Response => status 404

**No**

none

**Yes**

Wrapped in json

Get data

Status code 200

1. **Frontend (Angular) Sends Request** →
   * GET /api/users to get all users.
   * POST /api/users to create a new user.
   * GET /api/users/{id} to fetch a specific user by ID.
2. **Backend (Spring Boot) Receives Request** →
   * Fetches data from the database using JPA Repository.
   * Returns data to the frontend in JSON format.
3. **Frontend Displays Data** →
   * Angular consumes the data and renders it in HTML.

**Technical Details of Pages in the Application:**

* **Frontend Pages:**
  + **User List Page:** Displays a list of users retrieved from the backend. Each user is shown with their name and email.
  + **User Detail Page:** When clicked on a user, it shows detailed information about that user.
* **Backend Pages (REST API Endpoints):**
  + **GET /api/users:** Fetch all users.
  + **GET /api/users/{id}:** Fetch a specific user by ID.
  + **POST /api/users:** Create a new user in the database.

**User Documentation:**

* **How to Use the Application:**
  1. **View Users:** Navigate to the homepage where a list of all users is displayed.
  2. **Add User:** Click on the "Add User" button to submit a form with the user's details.
  3. **View User Details:** Click on a user name to view their detailed information.
* **System Requirements:**
  1. **Backend:** Java 8 or above, Spring Boot, PostgreSQL or MySQL database.
  2. **Frontend:** Angular 13 or above, Node.js 14 or above.

**Screenshots of the Working Model:**

A screenshot of a computer

Description automatically generated

To run rest API, we can use below class

A screenshot of a computer

Description automatically generated

We can see that user application is running on tomcat port 8080, see the below screenshot

A screenshot of a computer

Description automatically generated

After running project on tomcat port 8080, we can past local host URL to browser, see below screen shot

A screenshot of a computer

Description automatically generated

We can see list of users,

A screenshot of a computer

Description automatically generatedWe can see the user on postman also, I am taking screen shot only for get method and post

A screenshot of a computer

Description automatically generated

A screenshot of a computer

Description automatically generated

Frontend screenshot: -

I have used visual studio for angular.

A screenshot of a computer

Description automatically generated

To run angular project, we can use command “ng serve” , see screenshot below.

A screenshot of a computer program

Description automatically generated

We can see list of users

A screenshot of a computer

Description automatically generated