# Project Plan

# Password strength checker

# 1. Project Objective

The goal of this is to develop a Password Strength Checker, which evaluates password security based on different criteria and assigns a strength rating to guide users in creating secure passwords.

# 2. Milestone

• Milestone 1: Project&&Initial Planning

# Task 1.1: Define project scope & requirement

Identify the key features and objectives of the password strength checker; including the criteria for password evaluation and expected security guidelines.

# Task 1.2: Set up GitHub repository and development environment

Initialize a GitHub repository, configure Git settings, and set up a local development environment with necessary tools.

# Task 1.3: Research password security best practices

Gather information on password strength standards, hashing techniques, and security vulnerabilities to ensure a secure

implementation.

#### • Milestone 2: Backend Development

# Task 2.1: Implement password strength evaluation logic

Develop a function to analyze passwords based on length, character variety, and special symbols, returning a strength score.

#### Task 2.2: Add different strength classification levels

Define thresholds for weak, moderate, and strong passwords based on security criteria and implement them in the evaluation function.

#### Task 2.3: Implement error handling and validation

Ensure that invalid or empty passwords are handled properly, preventing crashes and incorrect evaluations.

# • Milestone 3: Frontend Development

# Task 3.1: Design user interface for inputting passwords

Create a simple UI (CLI or web-based) where users can enter passwords and view their strength rating.

#### Task 3.2: Connect UI with backend logic

Integrate the password evaluation function into the UI, ensuring realtime feedback for entered passwords.

# • Milestone 4: Testing & Bug Fixing

# Task 4.1: Write unit tests for backend validation

Develop test cases to verify that the password strength function

correctly classifies different password inputs.

#### Task 4.2: Conduct integration testing

Test the entire application workflow, from user input to password evaluation and feedback, identifying potential issues.

# • Milestone 5: Deployment & Final Review

### Task 5.1: Deploy application (if applicable)

Host the application on a platform to make it accessible for users.

#### Task 5.2: Final project review and documentation

Prepare documentation, including README.md and user instructions, and review code for improvements before final submission.