Test Strategy for Pick Me Up

Scope

This section outlines the parameters of the testing process:

- Reviewers and Approvers: The document will be reviewed and approved by our teachers, Steffen and Kim.

Testing Activities:

- Unit tests will be conducted each time a method is created. Components will be isolated, and initial integration tests will involve working with two components. Subsequently, single-component integration tests will be performed. System and acceptance testing will commence once at least 80% of user stories are developed and tested.

Test Approach

This section defines the testing process:

- **Process of Testing:** Team members will individually focus on creating unit tests for their respective parts of the program. Unit tests will be developed immediately after creating methods. Integration testing responsibilities will rotate among team members to ensure everyone gains experience.

Roles and Responsibilities:

Metin: Scrum master

Vivek: Developer

Sitthichai: Developer

Turan: Deeloper

Testing Types:

Security testing will be prioritized due to the sensitive nature of user data. Load performance testing will ensure the server can handle concurrent requests. Automated tests will be run using GitHub

Actions for each commit. Functionality testing will verify component behavior, and UAT will confirm the intended flow of the application.

Testing Levels:

Unit testing, integration testing, system testing, acceptance testing.

Automation Tools:

GitHub Actions for automated test runs.

Test Environment

- **Number of Environments:** Define the requirements and setup for each environment.
- **Test Data Backup:** Define backup and restore strategies for test data.

Testing Tools

- **Automation and Test Management Tools:** GitHub Actions for automated test execution.

Release Control

- **Release Management Plan:** Maintain version history to ensure test execution for all modifications.

Risk Analysis

Identify and mitigate potential risks:

- Risk: Security vulnerabilities
- Mitigation: Regular security testing and updates.
- Contingency: Response plan for security breaches.

Review and Approvals

- **Reviewers**: Teachers, Other Groups

- **Summary of Review Changes**: Document any changes during the project