PART 1: TEST PLAN

Project: Simple Login Page (Full Stack)

GitHub: https://github.com/huytungst/Demo-Project-1--Simple-Login-Page-Full-Stack

1. Test Scope and Objectives:

The goal is to validate the main user flows of a full-stack login web application including registration, login, and logout functionalities. Testing ensures both frontend and backend operate as expected and handle invalid inputs properly.

2. Test Approach (Manual vs. Automated):

- Manual testing for UI verification and exploratory test scenarios

- Automated testing (Selenium + C#) for regression and repetitive scenarios such as login and registration flows

3. Test Environment Requirements:

- Windows 10+ OS

- Visual Studio 2022 or later

- Google Chrome browser

- .NET SDK 6.0 or later

- ChromeDriver installed and available in PATH

- Application cloned and running locally (localhost:3000 for frontend, localhost:5000 for backend)

4. Test Cases for Critical User Flows:

1. Register new user with valid email and password

2. Register user with invalid email format

3. Register user with weak password

4. Login with valid credentials

5. Login with incorrect password

6. Login with non-existent user

7. Access profile page without login

8. Logout after login

9. Login with empty fields

10. Check that user is redirected to login after logout

5. Risk Assessment and Test Prioritization:

- High: Login and registration (core functionality)

- Medium: Error message visibility and validation

- Low: Styling or layout consistency

6. Defect Reporting Procedure:

- Bugs will be documented in a structured format including title, severity, priority, steps to reproduce, expected vs. actual results

- Tool: Simple document format compatible with Jira or Azure DevOps