Test Plan Document

LMS: <https://library-assignment-zeta.vercel.app/>

Date: 22 April, 2025

Tester: Prince Kumar Sarswat

Library Management Website Test Automation using Selenium, POM with Cucumber

Tester: Prince Kumar Sarswat

Manager: Pooja Yadav

Timeline: 22 April 2024 – 26 April 2024

# Objective

Implement an end-to-end manual and automation testing framework for the Library Management Website using Selenium and the Page Object Model (POM) with Cucumber. Integrate Extent Reports for enhanced reporting of test execution results.

# Scope of Testing

- Functional testing for User Login, Home Page, Book Search, Book Issue/Return, and Admin modules  
- Cross-browser and Regression Testing  
- Test reporting with Extent Reports

# Key Features of Testing

- Homepage

- User Authentication

- Book Search and Filtering

- Borrow and Return Books

- Contact Us

- Footer Section Links

# Test Approach

- Follow BDD with Cucumber and Gherkin syntax  
- Use POM structure for maintainable code  
- Automate using Selenium WebDriver and Java  
- Use Extent Reports for result visualization

# Tools and Technologies

- Selenium WebDriver  
- Java  
- Cucumber with Gherkin  
- Maven  
- Extent Reports  
- JUnit/TestNG  
- GitHub  
- Miro (for mind mapping)

# Test Environment

- Browser: Chrome, Firefox, Edge  
- OS: Windows/Linux  
- IDE: IntelliJ IDEA / Eclipse

# Timeline Breakdown

22 April 2024: Requirement Analysis and Test Plan Creation  
23 April 2024: Test Scenario and Test Case Design  
24 April 2024: Automation with Selenium POM and Extent Reports  
25 April 2024: Bug Report Preparation and Testing  
26 April 2024: Final Summary Report and Review

# Risks and Mitigation

- UI changes: Use dynamic locators  
- Cross-browser issues: Conduct regular tests  
- Data dependencies: Use mock/staging data  
- Tight schedule: Daily progress review and tracking

# Mind Map

Create a mind map using Miro tool for:  
- Test Planning  
- Scenario and Case Design  
- Automation Flow (Selenium + POM)  
- Bug Report Structure  
- Final Summary

