## 

|  |
| --- |
| DEPI |
| Test Plan Document |
| Project Discussion R2 Software Testing |

Contents

1. About the Project

[Project Overview](#_Toc190448066)

[Purpose of test plan](#_Toc190448067)

[Scope](#_Toc190448068)

[Deliverables](#_Toc190448069)

[2. Testing Overview](#_Toc190448070)

[Test Strategy](#_Toc190448071)

[Test Environment](#_Toc190448072)

[Test Data](#_Toc190448073)

[Test Schedule](#_Toc190448074)

Functional test Coverage

[3. Reporting & Log](#_Toc190448075)

[Test Execution](#_Toc190448076)

[Defect tracking](#_Toc190448077)

[Test Reporting](#_Toc190448078)

[4. Risk Management](#_Toc190448080)

[5. Resources](#_Toc190448080)

1. **About the Project**:

**Project:** LMS education platform Web Application

**Test Team:**

|  |
| --- |
| Consultants |
| |  | | --- | | Sarah Elhassan Abd El Latif | |  | |
| Ahmed Ibrahim Khalil |
| |  | | --- | | Zainab Osama Ali | |  | |
| |  | | --- | | Walaa Anwar | |  | |
| Youssef Yasser Abdelhamid |

**1. Introduction**

**1.1 Purpose:**

The purpose of this test plan is to outline the testing strategy, scope, resources, and schedule for validating the functionality, usability, and performance of the LMS website. It ensures that the website meets the defined requirements and provides smooth user experience before release

* 1. **Scope:**

Validate core features: login, registration, product browsing, and search.

Ensure cross-browser compatibility with Chrome, Firefox, and Edge.

Conduct performance and security testing.

**1.3 Deliverables:**

Test Plan Document

Test Cases

Test Execution Report

Defect Report

Performance and Security Testing Results

* + **Functional requirement:**

**3.1 User Authentication:**

Covers login, registration, and password reset. Its purpose is to verify user identity and ensure secure access to the system.

**3.2 Product Browsing & Details:**

This allows users to explore categories, search for products, and view detailed information such as price, specifications, reviews, and images.

**3.3 Account Management:**

Enables users to manage their profile, update personal information, view order history, track shipments, and modify passwords.

* + **Non-Functional Requirement:**

|  |  |
| --- | --- |
| Category | Requirement |
| Usability | |  | | --- | | Test reports must be clear and easy to interpret for users without a technical background |  |  | | --- | |  | |
| Scalability | Must be capable of handling over 100 test runs at the same time |
| Performance | Every test case should finish execution within 10 minutes for an average-sized store |
| Security | Confidential data must be protected through encryption; assess system for security flaws |
| Compatibility | Should function properly on both mobile and desktop web browsers |

**2. Test Strategy**

**2.1 Testing Approach:**

The **testing approach** is the strategy and methodology used to ensure software quality. It defines how testing activities are planned, executed, and tracked.

Manual testing will be performed.

**Testing tools** are software platforms used to assist in the testing process. They help manage tasks, track bugs, and ensure efficient testing workflows. For example:

* **Jira**: A project management tool used to track defects, plan tasks, and manage test cases and sprints in Agile development.
* **Bugzilla**: An open-source tool primarily used for bug tracking. It helps teams report, manage, and track software defects.

**2.2 Test Environment:**

|  |  |
| --- | --- |
| Microsoft Edge | Recent Updated |
| Firefox | 132.0 |
| Chrome | 132.0.6834.160 |

**2.3 Test Data:**

Test data will be created to cover various scenarios, including valid and invalid inputs:

* Types of test data used
* Security measures (e.g., encrypted credentials)

**3. Test Planning**

**3.1 Test Schedule:**

|  |  |
| --- | --- |
| Activity | Duration |
| Requirements Gathering | 4 - 5 Days |
| Test Plan creation | 5 - 6 Days |
| Test Execution & Monitoring | 6 - 7 Days |
| Performance & Security Checks | 4 - 5 Days |
| Report Preparation & Review | 3 - 4 Days |

**4. Test Case Design**

[Test Case design.](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fraw.githubusercontent.com%2FSarahElHassan1%2FALX2_SWD6_G1_Group5%2Frefs%2Fheads%2Fmain%2FTest%2520cases%2520LMS%2520final.xlsx&wdOrigin=BROWSELINK)

**5. Test Execution**

**5.1 Test Execution Procedure:**

* Use functional requirements to develop test cases
* Manual execution
* Logging and reporting

**6. Defect Tracking**

* Tools (Excel, GitHub, Jira)

[Bug Report Excel](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fraw.githubusercontent.com%2FSarahElHassan1%2FALX2_SWD6_G1_Group5%2Frefs%2Fheads%2Fmain%2FTest%2520cases%2520LMS%2520final.xlsx&wdOrigin=BROWSELINK)

<https://github.com/SarahElHassan1/ALX2_SWD6_G1_Group5>

**7. Test Reporting**

**7.1 Test Summary Report:**

[**Test\_Report.xlsx**](https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fraw.githubusercontent.com%2FSarahElHassan1%2FALX2_SWD6_G1_Group5%2Frefs%2Fheads%2Fmain%2FTest_Report.xlsx&wdOrigin=BROWSELINK)

|  |  |
| --- | --- |
| **Metric** | **Count** |
| Total Test Cases | 70 |
| Executed Test Cases | 70 |
| Passed Test Cases | 61 |
| Failed Test Cases | 9 |
| Bugs Identified | 9 |

### 8. Risk Management

**8.1 Risk Identification:**

**Cross-Browser Compatibility**Risks associated with the website’s functionality and appearance vary across different browsers (e.g., Chrome, Firefox, Safari, etc.), potentially causing issues for users.

**Mobile Responsiveness**The risk is that the website may not function properly on mobile devices, leading to a poor user experience and lost traffic.

**Performance Under Load**Risks related to how the website performs under high traffic volumes, which could lead to slow page loads, crashes, or downtime.

**Security Vulnerabilities**Risks associated with potential security flaws, such as SQL injections, cross-site scripting (XSS), or data breaches, which could compromise user data.

**Third-Party Integrations**Risks arise from external services (e.g., payment gateways, APIs, or analytics tools) failing or causing issues on the website, affecting its functionality.

**8.2 Risk Assessment:**

* **Technical Risk**
* Performance Risk >> Medium
* Security Risk >> Medium
* Compatibility Risk >> Medium
* Usability Risk >> Low

o **Project Risks**

* Schedule >> Critical
* Communication >> Critical

**8.3 Risk Mitigation:**

* **Technical Risk**
  + Performance Risk >> use the tool to simulate multiple concurrent users entering the website.
* Security Risk >> We must assign a security testing team to apply penetration testing
* Compatibility Risk >> test website from mobile and desktop different browsers
* Usability Risk >> test website using different screen sizes and test responsiveness

o **Project Risks**

* **Schedule >> use agile methodology and divide modules on team members**
* **Communication >> use shared documents with team members and test in workshop**

**8.4 Risk Monitoring:**

* Risks reassessed monthly; mitigation plans adjusted accordingly.