

Test Plan for CA Marketing Website

1. Introduction

This test plan outlines the quality assurance strategy for the CA Marketing website, covering manual, automation, API, performance, and security testing. The testing will focus on two key modules:

- **Sign-In and User Profile Management** – ensuring secure authentication and address management.

These modules will be tested for functionality, usability, and reliability.

2. Scope

The testing will verify that the website operates correctly, maintains optimal performance, and meets security standards.

3. Test Approach & Sub-Tasks

3.1 Website Manual Test

- **Sign In Tests**
 1. **Positive test.** Verify that a user can successfully sign in with valid credentials.
 2. **Negative test.** Check that registration fails when trying to sign up with an already existing username.
- **Make a New Address Tests**
 3. **Positive test.** Check that a user can successfully add a new address with valid details and save it in their profile.
 4. **Negative test.** Ensure that an error appears when trying to save an address with missing required fields.

3.2 Website Automation Test

- Implement automated UI tests using Selenium as the primary tool.
- Validate core website functionalities with regression tests.

3.3 Website API Test

- Test API endpoints for expected responses using Postman or REST-assured.
- Verify data validation, authentication, and error handling.

3.4 Website Performance Automation Test

- Conduct performance testing with Lighthouse, GTMetrix, or BrowserStack-SpeedLab.
- Measure page load speed, Core Web Vitals, and optimization scores.

3.5 Website Automation Security Test

- Use Snyk and Mozilla Observatory to scan for security vulnerabilities.
- Validate SSL implementation, HTTP security headers, and vulnerabilities in third-party dependencies.

Sub-Tasks

Specific actions within the testing process, such as:

- Writing test cases.
- Preparing test data.
- Conducting testing (manual and automated).
- Analyzing and logging defects.
- Retesting after bug fixes.

4. Test Environment

- Browsers: Chrome, Firefox, Edge
- Devices: Desktop
- Automation Tools: Selenium, Postman, Lighthouse, GTMetrix, Snyk

5. Test Deliverables

- Test Cases & Test Scripts
- Bug Reports
- Performance & Security Reports
- Final Test Summary

6. Test Schedule

Activity	Start Date	End Date
Test Case Design	02/01/2025	02/10/2025
Execution	02/11/2025	02/20/2025
Bug Fix Verification	02/21/2025	02/28/2025

7. Roles and Responsibilities

- **QA Engineer:** Maxim Kugayevskiy
- **Developer & Project Manager:** Sergey Efremov

8. Entry and Exit Criteria

Entry Criteria:

- Development of Sign-Up/Sign-In is complete.
- Test environment is set up.

Exit Criteria:

- All critical and major defects are fixed.
- Test cases executed with pass rate $\geq 95\%$.

9. Defect Management

- Defects will be tracked in JIRA.
- Priority will be assigned based on severity.

10. Test Tools

- Selenium for automation
- Postman for API testing
- JIRA for bug tracking