

SE 2226 Test Plan

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Test Plan For: Online Phone Accessories Store (OPAS)

1. Context of testing

1.1 Project/test levels/test types

This test plan is designed for testing an online phone accessories store named “Case Do It”. Testing will include unit testing, integration testing, system testing and user acceptance testing. And testing types such as functional testing, usability testing and security testing.

1.2 Test items

The test for this project includes testing of:

- User Registration and Login
- Shopping Cart Operations
- Search Functionality
- Product Selection Process

1.3 Test scope

The scope of testing includes features of the “Case Do It” applications such as user registration and logging in to the system, searching accessories, selecting an accessory, adding items to the cart and payment process. Features specifically excluded from testing are third-party payment gateways.

1.4. Test basis

The test basis is guided by the functional and non-functional requirements documented in the project specifications.

2. Assumptions and constraints

It is assumed that test environment and test data will be available at all times, there will not be any contractual requirement constraints.

3. Test strategy

3.1 General

The testing approach will involve a combination of manual and automated testing techniques.

3.2 Test levels

The test for the Case Do It website shall include the following test levels:

- Unit Testing
- Integration Testing (component level)
- System Testing
- User Acceptance Testing

3.3 Test types

- Functional Testing
- Usability Testing
- Security Testing

3.4 Test deliverables

The following test documentation will be produced:

- Test Plan
- Test Case Specification
- Test Completion Report

An overall Project Test Completion Report will also be produced at the end of the project, summarizing the results of testing across all levels of testing.

3.5 Test design techniques

- Equivalence Partitioning
- Boundary Value Analysis
- Category Partition Method
- Use Case Testing

3.6 Entry and exit criteria

Entry criteria for test execution during system testing:

- The system test plan has been created.
- Test scenarios and test cases have been developed and reviewed by the testing team.
- Test data and necessary test environments have been prepared and are available for use.
- Test execution schedule has been finalized.

Exit criteria for system testing:

- All test cases that have been executed and passed testing.
- All planned test activities have been completed, including the execution of all identified test cases.
- Test environment and data management activities have been executed as planned.
- Test cases and test scripts have been executed as per the defined test plan.
- Test incidents and defects have been logged, tracked, and managed effectively.
- Test coverage metrics have been collected and evaluated to ensure adequate coverage of requirements and functionalities.

3.7 Test completion criteria

Test completion criteria may be the same as the exit criteria for each test level.

3.8 Metrics to be collected

- Number of defects found and fixed per test level.
- Test case pass rate.
- Test coverage metrics.

3.9 Test data requirements

Origin of Test Data:

- Using real data from the live system.
- Creating synthetic data specifically for testing purposes.

Location of Test Data:

- Test data is located in files systems.

Data Quality Requirements:

- The data quality model defined in ISO/IEC 25012 can support the identification of test data quality requirements.

Data Validation and Verification:

- Ensuring it meets the requirements specified in test cases.
- Checking for any discrepancies or errors in the test data.

3.10 Test environment requirements

Hardware: Standard PCs

Software: Web browsers (Chrome), Operating Systems (Windows)

Test Tools: Selenium WebDriver, JIRA for defect tracking.

Personnel: Test Team members for test preparation and execution

3.11 Testing activities and estimates

Test Planning: Develop a comprehensive test plan outlining the testing approach, scope, objectives, and resources required for testing.

Estimated Duration: 2 weeks.

Test Design and Implementation:

Description: Create detailed test cases, test scripts, and test data based on requirements and test objectives. Implement test automation where applicable.

Estimated Duration: 2 weeks.

Test Execution:

Description: Execute test cases, perform manual and automated testing, record test results, and identify defects.

Estimated Duration: 2 weeks.

Defect Management:

Description: Log defects in the defect tracking system, prioritize issues and track their resolution status.

Estimated Duration: Ongoing throughout the testing phase.

4. Staffing

4.1 General

The staffing requirements for the testing covered by this plan include two individuals.

4.2 Roles and responsibilities

Test Team Members: Both team members will share primary responsibilities as test analysts, actively involved in test planning, test design, test execution, and defect reporting.

4.3 Schedule

The overall schedule of the testing activities will be like:

Test Planning: 2 weeks (Shared responsibility)

Test Design and Implementation: 2 weeks (Shared responsibility)

Test Execution: 2 weeks (Shared responsibility)

Test Reporting: Ongoing (Shared responsibility)