

TEST PLAN FOR FLIPKART E-COMMERCE WEB APPLICATION

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- [Name and Title of Stakeholder 1]
- [Name and Title of Stakeholder 2]

1. Introduction

1.1 Purpose

The purpose of this Test Plan is to outline the testing strategy, approach, resources, and schedule for testing the Flipkart e-commerce web application to ensure its reliability, functionality, security, and user-friendliness.

1.2 Scope

This Test Plan covers functional and non-functional testing aspects of the Flipkart web application, including but not limited to product browsing, user authentication, payment transactions, and security aspects.

1.3 Objectives

- Verify the functionality of critical features (login, search, add to cart, checkout).
- Validate compatibility across multiple browsers and devices.
- Assess the performance under various load conditions.
- Ensure the security of user data and transactions.

2. Test Strategy

2.1 Testing Approach

- Utilize a combination of manual and automated testing methodologies.
- Conduct both functional and non-functional testing types (functional, compatibility, performance, security).
- Perform exploratory testing to uncover unforeseen issues.

2.2 Test Levels

- Unit Testing
- Integration Testing

- System Testing
- Acceptance Testing

2.3 Test Types

- Functional Testing: Validate core functionalities.
- Compatibility Testing: Ensure compatibility across browsers (Chrome, Firefox, Safari) and devices (Desktop, Mobile).
- Performance Testing: Evaluate system performance under normal and peak load conditions.
- Security Testing: Assess the security of user data and transactions.

2.4 Test Environment

- Operating Systems: Windows 11, OS 17, Android 14
- Browsers: Chrome v120, Firefox v, Safari v17
- Devices: Desktop, Mobile (Android and iOS)
- Tools: Selenium WebDriver, JMeter, OWASP ZAP

2.5 Entry and Exit Criteria

- Entry criteria: Requirement analysis completion, test environment readiness.
- Exit criteria: Successful completion of test cases, minimal critical defects remaining.

3. Test Deliverables

- Test Plan
- Test Cases
- Test Reports (Progress, Defect, Summary)
- Performance Evaluation Reports

4. Testing Schedule

4.1 Test Phases

1. Test Planning and Preparation: Dec 1, 2023 - Dec 7, 2023

2. Test Case Development: Dec 8, 2023 - Dec 14, 2023
3. Test Execution: Dec 15, 2023 - Dec 28, 2023
4. Defect Reporting and Tracking: Ongoing during Test Execution
5. Test Closure: Dec 29, 2023 – Jan 4, 2023

4.2 Milestones

- Start Date: Dec 1, 2023
- End Date: March 7, 2023

5. Risks and Assumptions

5.1 Risks

- Unexpected increase in traffic during special events or promotions
- Security vulnerabilities leading to potential data breaches.
- Compatibility issues across multiple devices and browsers.

5.2 Assumptions

- Test environments will be available as per the schedule.
- Requirements are well-documented and accessible.

6. Requirements

6.1 Functional Requirements

- The application should allow users to register and log in securely.
- Users must be able to browse products by categories and search for specific items.
- Users should be able to add items to their cart and proceed to checkout.
- The application must handle payment transactions securely.
- Users should receive confirmation emails after successful purchases.

6.2 Non-Functional Requirements

- The application should respond within 3 seconds for page loads and interactions.
- It should support a minimum of 10,000 simultaneous users during peak load conditions.
- The website should be compatible with the latest versions of Chrome, Firefox, and Safari on both desktop and mobile devices.
- Data encryption must be implemented for user-sensitive information.

7. Training

7.1 Testing Team

- The testing team members will undergo training on the usage of testing tools:
 - ✓ Selenium WebDriver for automated testing
 - ✓ JMeter for performance testing
 - ✓ OWASP ZAP for security testing
- Training sessions will be conducted by experienced professionals to ensure proficiency in tool usage.

7.2 Development Team Collaboration

- Regular meetings and workshops will be organized to facilitate collaboration between the testing and development teams.
- This collaboration aims to ensure a mutual understanding of requirements, features, and potential issues for efficient testing.

8. Responsibilities

- Test Manager: [Name]
- Testers
 - 1.
 - 2.
 - 3.
 - 4.

9. Approvals

- [Name and Title of Stakeholder 1]
- [Name and Title of Stakeholder 2]