

## Question 4

# **Test Plan for E-Commerce Website**

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## **1. Introduction**

This inspection strategy explains how the e-commerce site is intended to be inspected. All features are tested to see if they work properly, serve their purpose effectively, and are convenient, and this website is used to improve user satisfaction. In this document, it includes the objective, scope, and methods of testing followed during this period

### **1.01. Objective And scope**

This test plan's primary objective is to highlight that the e-commerce website performs as expected, does what it's supposed to do, and is simple to interact with. The aim concerns such aspects as payment options – what types are supported, the functionality of shipping and address fields, order overview and review, and the confirmation and the receipt.

#### **Scope**

This test plan includes completing payment, selecting a delivery method, placing an order, and receiving a receipt among other functions. It is usually the case that certain tests are done so that the site shall comply towards the outlined requirements and perform effectively under a variety of circumstances.

### **1.02. Tasks**

- If there are multiple payment facilities, say Credit Card Debit card, PayPal, etc.
- Shipping and address management (Different carriers, address entry, address validation)
- Order summary and review (Summary of the cart, number of items, price range)
- Order confirmation and generation of the receipt (Confirmation page, email receipt)

## **2. List of components**

### **2.01. Features to be Tested**

- **Payment methods:** Types of payments, how they are processed, how successful and unsuccessful
- **Shipping options:** Alternative dispatch technologies and their variations, calculating postal fees, checking address or location.
- **Order summary:** Details regarding the purchase, item descriptions, prices for each tax amount, and total expenditure.
- **Order confirmation:** The order invoice, email with the order confirmation, and the order confirmation window should all be arranged correctly

### **2.02. Features Not to be Tested**

- Internal administrative functions that do not impact the user experience
- Third-party APIs not directly affecting payment

## **3. Testing strategy**

- **Unit testing:** In this area, units, and attributes are tested in terms of performed functionality in isolation.
- **Integration testing:** Integrated components check the functioning of all features integrated in the previous step.
- **System testing:** Testing the application in an environment which is configured as per the organization's requirement to check whether the application works as it should and whether its standards are adhered to.
- **Functional testing:** To ensure that the website is functioning within the requirements and the specification limits set.
- **Regression testing:** Whenever a new feature is added or any changes are made, it needs to be verified how previous features are behaving and have not been altered.
- **Load testing:** Testing the performance of the website about resistance to load and efficiency under different loads

### **3.01. Tools**

- Selenium for UI testing,
- JMeter for load testing,
- Postman for API testing,
- BrowserStack for cross-browser testing.

## **4. Test Criteria**

### **4.01. Entry Criteria**

- All test cases have been reviewed and approved
- The testing environment is fully configured and stable

### **4.02. Exit Criteria**

- No critical defects remain unresolved
- All test deliverables are completed and reviewed

### **4.03. Deliverables**

- Test plan document
- Test cases
- Defect reports
- Test summary reports
- Automation scripts

## **5. Hardware Requirements**

- **Hardware**

Servers with sufficient process power, and memory to simulate real word usage

- **Software**

Web browsers for testing (Chrome, Firefox, Safari, Edge)

Selenium, JMeter, Postman

- **Network configurations**

Replication of production network setting to ensure accurate load testing

## **6. Responsibilities**

- Test Analysis
- Developers
- Project managers
- Test managers

## **7. Schedules**

### **7.01. Timeline for testing activities**

- Planning of Test - 1 week
- Create Test Cases – 2 weeks
- Execution of Test – 3 weeks
- Retesting and fixing defects – 2.5 weeks
- Reporting and Closing the Final Test – 1 week

## **8. Risks /Assumptions**

### **8.01. Potential risks and mitigation strategies**

#### **Potential risks**

- If the development team does not deliver comments on time testing may be delayed
- An unstable test environment could lead to inaccurate test result

#### **Mitigation strategies**

- Weekly check-ins to monitor process and address issues
- Backup resources and alternative testing environment to avoid delays

## **9. Approvals**

- Project manager - Ensure alignment with project goals
- Test Manager - Confirms the testing strategy and resources
- Dev Lead - Validates the test plan against the development schedule
- Product owner - Confirm that the test plan meets business requirements

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