

# Test Cases

## Practical Question 2

E-commerce Checkout Process: You are assigned to test the checkout process of an e-commerce website. The website allows users to add products to their cart, proceed to checkout, and complete the purchase. The checkout process involves multiple steps, including entering shipping information, selecting a payment method, and confirming the order.

- a. Outline a high-level test strategy for testing the e-commerce checkout process. Consider key testing objectives, environments, and testing types (e.g., functional, usability, security).
- b. Identify and list five critical test scenarios that you would prioritize for testing the checkout process. Include scenarios related to both positive and negative test cases.
- c. Develop a test case for the scenario of completing the checkout process using the website's user interface. Include step-by-step instructions, expected results, and any necessary test data.

## Answer

- a. When testing the e-commerce checkout process, it is crucial to have a comprehensive test strategy in place. The key objectives of testing would include ensuring the functionality of the checkout process, testing for usability and user experience, and addressing potential security vulnerabilities.

In terms of environments, it is important to test the checkout process across different browsers, operating systems, and devices to ensure compatibility. Testing would also be conducted in both staging and production environments to replicate real-world scenarios accurately.

As for testing types, functional testing would cover all the steps involved in the checkout process, including adding products to the cart, entering shipping information, selecting payment methods, and confirming the order. Usability testing would focus on the ease of use and intuitive nature of the checkout process. Security testing would include validating the security measures in place, such as secure payment gateways and data encryption.

- b. To prioritize critical test scenarios for the checkout process, I will consider both positive and negative test cases. Here are five scenarios I will consider:

- **Positive Scenario: Successful Checkout** - Add a product to the cart, enter valid shipping information, select a payment method, and complete the purchase. Verify that the order is successfully processed and the user receives a confirmation.
- **Negative Scenario: Invalid Payment Information** - Enter invalid payment details, such as an expired credit card or incorrect CVV code. Verify that the system correctly identifies the error and prompts the user to correct the information.
- **Negative Scenario: Out of Stock Product** - Add a product to the cart that is out of stock. Proceed to checkout and ensure that the system alerts the user about the unavailability and doesn't allow the purchase to proceed.
- **Negative Scenario: Shipping Address Validation** - Enter an incomplete or invalid shipping address. Verify that the system detects the error and prompts the user to provide a valid address.
- **Negative Scenario: Security Testing** - Attempt to manipulate the payment process by injecting malicious code or attempting unauthorized access. Verify that the website has measures in place to prevent such security breaches.

c. Test Case: Completing the Checkout Process

Test Case	Steps to Reproduce	Test Data:	Expected Results:
Completing the Checkout Process	<ul style="list-style-type: none"> <li>● Navigate to the e-commerce website and log in with valid credentials.</li> <li>● Browse the products and add a desired product to the cart.</li> <li>● Click on the cart icon and proceed to checkout.</li> <li>● Enter valid shipping information, including name, address, and contact details.</li> <li>● Select a preferred payment method (e.g., credit card).</li> <li>● Enter valid payment details, including card number, expiration date, and CVV code.</li> <li>● Review the order summary and ensure that all details are accurate.</li> <li>● Click on the "Place Order" button to complete the purchase.</li> </ul>	<ul style="list-style-type: none"> <li>● Valid shipping information (name, address, contact details)</li> <li>● Valid payment information (card number, expiration date, CVV code)</li> <li>● Product details for the selected item.</li> </ul>	<ul style="list-style-type: none"> <li>● The system should successfully process the order and display a confirmation message.</li> <li>● An order confirmation email should be received with the correct details.</li> <li>● The order details should match the selected product and shipping information.</li> <li>● The payment amount should be accurately charged to the</li> </ul>

	<ul style="list-style-type: none"><li>• Verify that the system processes the order successfully.</li><li>• Check for an order confirmation message or email notification.</li><li>• Validate that the order details match the selected product and shipping information.</li><li>• Ensure that the payment amount is correctly charged to the provided payment method.</li></ul>		provided payment method.
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