Test Plan ID – 001

Test Plan Name – E-Commerce website Development

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1. <u>Objective</u>

To ensure that the application works as intended and meets specified requirements.

2. <u>Scope</u>

- Payment Processing: Verify the multiple payment methods
- Shipping Options and Address Management: Verify the shipping methods, address management and cost calculations based on the shipping method
- Order summary and review: Verify the order editing, order summary and review order section
- Order Confirmation and Receipt Generation: Verify the order confirmation, receipt generation and email the receipt

3. <u>Features and Functions</u>

I. Multiple Payment Methods
- Credit/Debit Card: Visa, MasterCard, American Express
- Digital Wallets: PayPal, Apple Pay, Google Pay
- Bank Transfer: Direct bank transfer

II. Shipping Options and Address Management
- Shipping Methods: Standard, Expedited, Overnight
- Address Management: Add, Edit, Delete addresses
- Shipping Cost Calculation: Based on shipping method, address, and order weight

III. Order Summary and Review
- Order Summary: Display of item details, quantities, prices, and total cost
- Review Order Section: Ability to review order before final submission
- Edit Order: Option to edit items in the cart before checkout

IV. Order Confirmation and Receipt Generation
- Order Confirmation: Confirmation message and order number
- Receipt Generation: Receipt with order details, including items purchased, total cost, shipping method, and delivery address

- Email Receipt: Automatic email with order receipt sent to the customer

4. <u>Test Strategy</u>

4.1 Test Approach
- Manual Testing: execute test cases for critical functionalities like user registration, payment processing, and order management.
- Automation Testing: Automation scripts will be created using Selenium WebDriver to handle repetitive tasks like login/logout, adding items to the cart, and performing search operations.

4.2 Test Levels
- Unit Testing: Test each component of the software application
- Integration Testing: To test interactions between features (e.g., payment integration with order processing).
- System Testing: End-to-end testing of the complete system.

5. <u>Test Scenarios and test cases</u>

5.1 Multiple Payment Methods
  I. Test Scenario: Validate the payment via Credit/Debit Card.
      - Test Case: Verify successful transaction for valid card details.
      - Test Case: Verify handling of invalid card details.
  II. Test Scenario: Validate the payment via Digital Wallets.
      - Test Case: Verify successful transaction using PayPal.
      - Test Case: Verify successful transaction using Apple Pay.
  III. Test Scenario: Validate the payment via Bank Transfer.
      - Test Case: Verify transaction initiation and confirmation.

5.2 Shipping Options and Address Management
  I. Test Scenario: Validate shipping method selection.
      - Test Case: Verify availability of different shipping methods.
      - Test Case: Verify shipping cost calculation based on method and address.
  II. Test Scenario: Validate address management functionality.
      - Test Case: Verify adding a new address.
      - Test Case: Verify editing an existing address.
      - Test Case: Verify deleting an address.

5.3 Order Summary and Review

    I.   Test Scenario: Validate order summary details.

- Test Case: Verify accurate display of item details, quantities, and total cost.

    II.   Test Scenario: Validate order review functionality.

- Test Case: Verify ability to review and confirm order before submission.
- Test Case: Verify ability to edit cart items before checkout.

5.4 Order Confirmation and Receipt Generation

    I.   Test Scenario: Validate order confirmation message.

- Test Case: Verify successful order confirmation and generation of an order number.

    II.   Test Scenario: Validate receipt generation.

- Test Case: Verify receipt details match the order summary.

    III.   Test Scenario: Validate email receipt.

- Test Case: Verify automatic email receipt is sent to the customer with accurate order details.

6. **Test Environment**

6.1 Hardware Requirements:

- Web servers
- Database servers

6.2 Software Requirements:

- Web browsers (Chrome, Firefox)
- Test automation tools (e.g., Selenium WebDriver)
- Email service for receipt generation

7. **Test Data**

- Valid and invalid credit card details
- Valid and invalid digital wallet credentials
- Different shipping addresses and methods

- Sample orders for testing order summary and receipt generation

8. <u>Test Schedule</u>

- Test Planning: August 28, 2024
- Test Design: August 30 - September 5, 2024
- Test Execution: September 6 - September 16, 2024
- Bug Fixing and Retesting: September 17 - September 21, 2024
- Final Review and Reporting: September 22 - September 24, 2024

9. <u>Risks and Mitigation</u>

Risks:

- Data Accuracy: Risk of incorrect data in orders or receipts.

Impact:

- Incorrect data in orders or receipts can lead to significant customer dissatisfaction.

Mitigation:

- Data Verification: Implement validation checks and reconciliation processes.

10. <u>Reporting and Communication</u>

- Daily Status Reports: Provide daily updates on testing progress and issues..
- Final Test Report: Summarize test results, issues found, and resolutions.