**Test Plan for Computer Mania BD Website**

**1. Introduction**

**Objective:** To ensure the Computer Mania BD website meets functional, performance, and usability standards by validating core features such as product browsing, search functionality, order placement, and user account management.

**Scope:** The test plan focuses on the e-commerce functionality of the Computer Mania BD website, including browsing, product filtering, cart operations, checkout, payment gateway integration, and user management.

**2. Test Objectives**

* Verify that users can browse and search for products seamlessly.
* Validate the accuracy and functionality of the cart and checkout process.
* Ensure secure and reliable integration with payment gateways.
* Confirm that user accounts and profiles are managed appropriately.

**3. Test Scope**

**In-Scope:**

* Product search and filtering functionality.
* Add to cart and checkout processes.
* Payment gateway functionality.
* User registration, login, and profile management.
* Responsiveness on desktop and mobile devices.

**Out-of-Scope:**

* Backend database optimizations.
* Third-party vendor functionalities not directly related to the user experience.

**4. Test Items**

* Homepage navigation.
* Product catalog.
* Search functionality.
* Product details page.
* Cart management.
* Checkout and payment processes.
* User registration and login.
* Order history and tracking.

**5. Assumptions and Dependencies**

* The website is hosted on a stable server.
* Payment gateways are fully configured.
* Test environment mirrors the production environment.
* Necessary test data (e.g., dummy user accounts and payment credentials) are provided.

**6. Test Strategy**

**Types of Testing:**

* Functional Testing: Validate the functionality of website features.
* Usability Testing: Ensure the website is intuitive and user-friendly.
* Performance Testing: Test the website’s response time under various loads.
* Security Testing: Validate data protection during transactions.

**Testing Levels:**

* Unit Testing (by developers).
* Integration Testing (interaction between modules).
* System Testing (complete system validation).
* User Acceptance Testing (UAT).

**7. Test Environment**

**Hardware:**

* Desktop: Windows 10/11, macOS Monterey
* Mobile: Android, iOS

**Software:**

* Browsers: Chrome, Firefox, Safari, Edge
* Tools: Selenium, Postman, JMeter

**8. Test Data**

* Valid and invalid user credentials.
* Dummy payment card details.
* Test product entries.
* Order history and status scenarios.

**9. Test Schedule**

* **Test Preparation:** Jan 22–Jan 24
* **Test Execution:** Jan 25–Feb 5
* **Test Reporting:** Feb 6–Feb 8

**10. Roles and Responsibilities**

* **Test Lead:** Plan, coordinate, and review the testing process.
* **Test Engineers:** Execute test cases and document results.
* **Developers:** Fix bugs identified during testing.

**11. Test Deliverables**

* Test cases and test scripts.
* Test execution report.
* Defect report.
* Final test summary.

**12. Entry and Exit Criteria**

**Entry Criteria:**

* Test environment is set up.
* All modules are delivered.
* Test cases are reviewed and approved.

**Exit Criteria:**

* All critical defects are resolved.
* 95% of test cases pass successfully.
* Test summary report is signed off.

**13. Risks and Mitigation**

**Risks:**

* Delayed module delivery.
* Payment gateway downtime.

**Mitigation:**

* Adjust the test schedule for delayed modules.
* Use a mock payment gateway for testing.

**14. Approvals**

* **Test Lead:** [Signature]
* **Project Manager:** [Signature]
* **Client Representative:** [Signature]