**Test Plan** for E-commerce Website

1. **Test Plan Identifier**

* Test Plan ID: ECOM-TP-001

2. **Introduction**

This test plan describes how we will test the e-commerce website. The website includes features such as product browsing, search functionality, cart management, secure checkout, and order tracking. The goal is to ensure the website works well, is easy to use, and is safe for customers. We will test all key features and fix any problems we find.

3. **Test Items**

* Homepage
* Product pages
* Search bar
* Shopping cart and Wishlist
* Checkout process
* User accounts (registration and login)
* Payment system
* Order history and tracking
* Admin dashboard (for product, user, and order management)
* Email notifications
* Customer support

4. **Features To Be Tested**

* Navigating the website
* Search functionality with filters and sorting
* Adding and removing items from the cart
* Payment gateway integration and transactions
* Viewing order details
* Receiving confirmation emails
* Admin functionalities (adding products, managing users/orders)
* API performance and security

5. **Features Not to Be Tested**

* Internal database structure
* Third-party tools
* Payment through EMI
* Non-production environment setups

6. **Approach**

**Manual Testing**:

* Check website design, layout, and usability.
* Test main workflows like searching, adding to cart, and checkout.

**Automated Testing:**

* Automate repetitive tasks such as adding items to the cart.
* Run regression tests for existing features.

**Performance Testing:**

* Test loading speed and behavior under high traffic.

**Security Testing:**

* Check payment safety and protect user data from vulnerabilities.

**Compatibility Testing:**

* Test on various devices and browsers to ensure responsiveness.

7. **Pass/Fail Criteria**

* **Pass**: The feature works without any major issues.
* **Fail**: The feature does not work as expected or has serious problems.

8. **Suspension Criteria**

We will pause testing if:

* Critical defects block the testing of other features.
* Required test environments are unavailable or unstable.
* Test data is insufficient or corrupted.

9. **Test Deliverables**

* Test cases
* Test plan documents
* Test data
* Test execution reports
* A report on defects
* Final test summary report

10. **Testing Tasks**

* Write and review test cases
* Prepare test data
* Execute test cases.
* Log and track defects
* Perform re-testing and regression testing.

11. **Environmental Needs**

**Hardware**:

* Desktop and mobile devices (various configurations)
* Servers for staging and production environments

**Software**:

* Browsers: Chrome, Firefox, Safari, Edge
* Testing tools: Selenium, Postman, JIRA
* Database: MySQL or PostgreSQL

**Network**:

* Stable internet connection
* VPN access for secure environments

12. **Responsibilities**

**QA Team**:

* Design and execute test cases.
* Log defects and track their resolution.
* Perform regression and re-testing.
* Prepare test reports.

**Developers**:

* Resolve reported defects.
* Perform unit testing before code delivery.

**Project Manager:**

* Ensure association to the test schedule.
* Facilitate communication between teams.

13. **Training Needs**

* Training in testing tools
* Overview of e-commerce workflows

14. **Schedule**

* Plan testing: Jan 1 - Jan 5
* Write test cases: Jan 6 - Jan 10
* Set up test environment: Jan 11 - Jan 12
* Run tests: Jan 13 - Jan 25
* Fix issues and retest: Jan 26 - Jan 31
* Create report: Feb 1 - Feb 3

15. **Risks and Mitigation**

* Risk: Delays in setup.

Fix: Start setup early.

* Risk: Too many defects.

Fix: Focus on critical features first.

16. **Approval**

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