

## Test Plan

### Project Title: OPENCART

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### Purpose of the Document

This document describes some test functionality of OpenCart website which is PHP-based, using a MySQL database and HTML components. It includes the objectives, scope, test responsibilities, entry and exit criteria, schedule of major milestones, approaches, risks, and acronyms.

PROJECT NAME	Team Leader	PROJECT
Open Cart – Online E-commerce Website	Abdelwahab Ayman	AMIT Education
Group Code	Sub-Group	Track
SWD1_GIZ6_G1	Sub-Group 1	Software Testing
ASSIGNED	EXPECTED START DATE	EXPECTED COMPLETION DATE
	-10-2025	--2025

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## 1. Introduction

### PURPOSE

THIS DOCUMENT DESCRIBES SOME TEST FUNCTIONALITY OF OPENCART WEBSITE WHICH IS PHP-BASED, USING A MYSQL DATABASE AND HTML COMPONENTS. IT INCLUDES THE OBJECTIVES, SCOPE, TEST RESPONSIBILITIES, ENTRY AND EXIT CRITERIA, SCHEDULE OF MAJOR MILESTONES, APPROACHES, RISKS, AND ACRONYMS.

## 2. Scope

### 2.1 IN-SCOPE

#### • **Register**

- Well-organized menu.
- Ability to input "First Name," "Last Name," "E-Mail," "Telephone," "Password," etc. to create a new account.
- Should have a back option.

#### • **Login and Logout**

- Well-organized menu.
- Ability to choose currency.
- Options for "Contact," "My Account," "Wish List," "Shopping Cart," "Checkout," and "Item."
- Forgot the password link.
- Should have a back option.

#### • **Login and Logout**

- Well-organized menu.
- Ability to input E-Mail address.
- Instruction text on top.
- Back and continue options.

#### • **Search**

- Organized Search bar

#### • **Product Compare**

- Allows comparing specifications, features, and prices of multiple products.
- Should have back and Show more>Show less options.
- Add to cart and remove options.

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#### • **Your Store Page**

- Currency choice.
- Options for "Contact," "My Account," "Wish List," "Shopping Cart,"

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"Checkout," and "Item."

- Clickable company logo on the top left.
- Search product feature.
- Organized by category.
- Show all features.
- "Show more/Show less" after product description.
- More product options.
- Clickable products.
- Clickable cart sign-on product view.
- "Wish list" and "compare" options.
- Navigation to OpenCart Homepage.
- Functional page numbers and next/previous buttons.
- The price displayed on products.
- Scrollbar on products.

#### ● Product Detail Page

- Product image with alternate views.
- Product details: code, availability, price.
- Cart functionality: select quantity, add to cart, wish list, compare.
- Rating/Sharing: rate the product, and share on social media.
- Description and review tabs.

#### ● Other features

- Add To Cart
- Wish List
- Shopping Cart
- Currencies
- Checkout page
- My Account Page
- Order History
- Download Page
- Contact Us Page
- Menu Option
- Footer Option

## 2.2 OUT-OF-SCOPE

Any feature added later.

### 3. Testing Strategy

Test Type	Scope	Approach & Tools	Exit Criteria
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1. Functional Testing	All user-facing features: Registration, Login, Account Overview, Transactions (Transfer, Bill Pay), Account History, etc.	<ul style="list-style-type: none"> <li>- <b>Manual:</b> Test cases derived from user stories/requirements.</li> <li>- <b>Automation:</b> Selenium WebDriver with Java for regression suites.</li> </ul>	<ul style="list-style-type: none"> <li>- 95% of test cases passed.</li> <li>- All critical &amp; blocker bugs resolved.</li> </ul>
2. GUI Testing	Visual elements, layout, formatting, and navigation across all pages.	Manual checking against a style guide on different screen resolutions and browsers.	<ul style="list-style-type: none"> <li>- All UI elements render correctly.</li> <li>- No major layout breaks.</li> </ul>
3. Security Testing	Authentication, Authorization, Session Management, SQL Injection, XSS.	<ul style="list-style-type: none"> <li>- <b>Manual:</b> Attempt to breach authentication. Test user privileges.</li> <li>- <b>Tools:</b></li> </ul>	<ul style="list-style-type: none"> <li>- No critical/high-severity security vulnerabilities are open.</li> <li>- User data is properly segregated.</li> </ul>
4. Compatibility Testing	Application behavior on different browser and OS combinations.	<ul style="list-style-type: none"> <li>- <b>Manual:</b> Smoke test on Chrome, Firefox, Safari, Edge (latest versions).</li> <li>- <b>Tools:</b> BrowserStack for cross-browser testing.</li> </ul>	<ul style="list-style-type: none"> <li>- Application functions correctly on all supported browsers.</li> </ul>
5. Performance Testing	Application response time and stability under normal load.	<ul style="list-style-type: none"> <li>- <b>Tools:</b> JMeter.</li> <li>- Simulate multiple users performing common actions (login, view accounts).</li> </ul>	<ul style="list-style-type: none"> <li>- Average response time &lt; 3 seconds for key transactions.</li> <li>- No memory leaks or crashes.</li> </ul>
6. Usability Testing	Ease of use, navigation flow, and clarity of information.	Internal testing with a small group of non-technical users. Gather feedback on the overall experience.	<ul style="list-style-type: none"> <li>- Feedback is reviewed and major UX issues are logged as bugs or enhancements.</li> </ul>

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<b>5. Database Testing</b>	Data accuracy, ACID properties of transactions, and stored procedures.	<ul style="list-style-type: none"> <li>- Run functional tests and verify data directly in the DB.</li> <li>- Test rollback for failed transactions.</li> <li>- <b>Tools:</b> SQL queries.</li> </ul>	<ul style="list-style-type: none"> <li>- All transactions are accurately recorded.</li> <li>- No orphaned or corrupted data.</li> </ul>
<b>6. API Testing</b>	Backend services and endpoints (if applicable).	<ul style="list-style-type: none"> <li>- <b>Tools:</b> Postman or REST Assured.</li> <li>- Test various HTTP methods, status codes, and response payloads.</li> </ul>	<ul style="list-style-type: none"> <li>- All API endpoints return expected responses.</li> <li>- Error handling is robust.</li> </ul>

## TEST CASE PREPARATION AND EXECUTION

- QA WILL BE PREPARING TEST CASES. THIS WILL COVER ALL SCENARIOS FOR REQUIREMENTS.
- PEER REVIEW WILL BE CONDUCTED FROM TIME TO TIME FOR TEST CASES AND TEST MATRIX BY THE QA LEAD.
- THE RESPECTIVE AUTHOR OF THE TEST CASE AND TEST MATRIX WILL PROVIDE COMMENTS OR SUGGESTIONS ON TEST CASES AND TEST COVERAGE IF NEEDED.
- THE AUTHOR WILL RE-WORK THE SUGGESTIONS/IMPROVEMENTS THAT HAVE BEEN GIVEN ON TEST CASES/MATRIX AND WILL SEND THEM FOR APPROVAL. RE-WORKED ENHANCEMENTS WILL BE REVIEWED AND APPROVED BY THE REVIEWER.
- RESPECTIVE QA WILL EXECUTE TEST CASES ON THE TEST SITE BASED ON DESIGNED SCENARIOS, TEST CASES, AND TEST DATA.
- (ACTUAL RESULT WITH EXPECTED RESULT-> PASS/FAIL) TEST RESULTS WILL BE UPDATED IN THE TEST CASE DOCUMENT.

## DEFECT LOGIN AND REPORTING

- QA WILL LOG THE DEFECTS/BUGS IN THE PROSPECTIVE MANAGEMENT TOOL. AFTER THIS, QA WILL INFORM THE RESPECTIVE DEVELOPER ABOUT THE DEFECTS/BUGS THAT

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HAVE BEEN LOGGED.

#### **RETESTING**

- RESPECTIVE QA WILL RE-TEST FOR FIXED BUGS AFTER THE RESPECTIVE DEVELOPER RESOLVES IT. BUG/DEFECT STATUS WILL BE UPDATED ACCORDINGLY. IN CERTAIN CASES, IF IT'S REQUIRED THEN REGRESSION TESTING WILL BE DONE.

#### **DEPLOYMENT / DELIVERY**

- ONCE ALL BUGS/DEFECTS THAT HAVE BEEN REPORTED AFTER COMPLETE TESTING ARE FIXED, AFTERWARD IF NO OTHER BUGS ARE FOUND, THE REPORT WILL BE DEPLOYED TO THE TEST SITE BY PM.
- ONCE QA IS DONE WITH THE TESTING ROUND ON THE TEST SITE AND IF IT IS REQUIRED, THE REPORT WILL BE DELIVERED ALONG WITH SAMPLE OUTPUT BY EMAIL TO THE RESPECTIVE TEAM MEMBER.
- QA WILL HAND OVER THE HARD COPY OF THE DELIVERY DOCUMENTS TO THE

#### **Participants:**

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1. Abdewahab Ayman	
2. Ahmed Dandrawy	
3. Alaa	
4. Moemen	
5. Mahmoud Helmy	
6. Nesma Elmasry	

## 4. Execution Strategy

#### **ENTRY CRITERIA**

- QA RESOURCES HAVE COMPLETELY UNDERSTOOD THE REQUIREMENTS AND COMPLETED THE FRS DOCUMENT.

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- QA RESOURCES HAVE SOUND KNOWLEDGE OF FUNCTIONALITY.
- TEST SCENARIOS & TEST CASES APPROVED.
- TEST PLAN
- ALL THE NECESSARY DOCUMENTATION, DESIGN, AND REQUIREMENTS INFORMATION SHOULD BE AVAILABLE THAT WILL ALLOW TESTERS TO OPERATE THE SYSTEM AND JUDGE THE CORRECT BEHAVIOR.
- UNIT TEST CASES SHOULD PASS
- APPLICATION SMOKE TEST COMPLETED (IF APPLICABLE)

### Exit Criteria

- TEST CASES EXECUTION COMPLETED.
- A CERTAIN LEVEL OF REQUIREMENTS COVERAGE HAS BEEN ACHIEVED.
- OUTSTANDING SEVERITY 1 & 2 DEFECTS COMPLETED
- NO HIGH PRIORITY IS LEFT OUTSTANDING.
- COMPLETION OF PLANNED TEST CASE EXECUTION
- UAT TEST EVIDENCE COLLECTED
- TEST CLOSURE MEMO COMPLETED AND SIGNED OFF

## 5. Environment Requirements

### Test Environment Setup

APPLICATION	Open Cart demo site (public)
BROWSER	Operations, Sales, Project Management, Engineering
OS	WINDOWS
STAGING /QA ENVIORNMENT	Use public demo ,monitor for downtime

### TEST TOOLS

Test Management	Google Sheets, Excel, Jira	Test Management		
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Automation	Java, Selenium ,	Automation		
Defect Tracking	GitHub Issues or spreadsheet	Defect Tracking		
Collaboration	GitHub, Jira	Collaboration		
Automation	Java, Selenium WebDriver, JUnit	Automation		