Digital Egypt Pioneers

PROJECT PLAN

OpenCart Demo –
Online Shopping Platform

Submitted by:

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1. Project Team Structure

- **Context:** This project serves as the final graduation requirement for the Software Testing Track within the Digital Egypt Pioneers (DEP) initiative. The goal is to apply comprehensive testing methodologies (Manual, Automation, API, DB) to a real-world E-commerce platform.
- **Platform Under Test:** OpenCart Demo (Online Shopping Platform)
- **Duration/Timeline:** 6 Weeks\ (Mid-October to End of November)

2. Project Team Structure

- **Project Team:** Nirvana Isaac, Youssef Khaled, Amira Samy, Hadeer Mahmoud
- **Leadership:** Nirvana Isaac (Test Lead) is responsible for overall project coordination, documentation, risk management, and database integrity checks.
- **Collaboration Model:** The team will adopt a modified Agile approach, utilizing short, focused iterations (Sprints) for test execution and daily stand-ups for progress tracking.

3. Project Goals

The project aims to achieve the following objectives, detailed in the Test Plan:

- Achieve 100% test coverage for critical paths, including:
  - User Registration & Login/Logout
  - Product Browsing, Search, and Filtering
  - Cart Management (Add, Remove, Update, Apply Coupon)
  - Checkout & Payment Flow
  - Order History & Confirmation
  - Admin Product and Order Management
  - Admin Dashboard & Reporting
- Set up a robust automation framework (Selenium) capable of running the core regression suite.
- Verify API functionality and data integrity following key transactions.

- Deliver a comprehensive final report detailing defects, coverage, and analysis.

4. Scope Definition

- **In-Scope:** (Reference to Section 2.1 of Test Plan: Customer Frontend, Admin Backend, API Testing, Database Integrity Checks, Manual & Automation Testing.)
- **Out-of-Scope:** (Reference to Section 2.2 of Test Plan: Load Testing, Live Payment Gateway Integration, Legacy Browser Testing, Source Code Unit Testing.)

5. Key Deliverables

The following artifacts will be produced and submitted:

1. **Test Plan** (Separate Document)
2. **Test Cases & Execution Results** (Spreadsheet/Repository)
3. **Automation Scripts** (GitHub Repository)
4. **API Collections** (Postman .json file)
5. **Defect Report** (Jira)
6. **Final Project Report**

6. Resource Allocation and Schedule

- **Roles & Responsibilities:**
    - Test Lead & DB Specialist: Nirvana Isaac
    - Automation Engineer: Youssef Khaled
    - API & Security Tester: Amira Samy
    - Manual & Exploratory Tester: Hadeer Mahmoud
- **Tools and Technology:** The team will use a combination of industry-standard tools and technologies to perform different testing activities:
    - **Java & Selenium:** for automation testing of core user workflows (login, cart, checkout).

- **IntelliJ IDEA:** as the primary IDE for writing and executing Java Selenium automation scripts.
- **Postman:** for validating API functionality, status codes, and data responses.
- **Jira:** for bug reporting, tracking, and team collaboration.
- **SQL:** for verifying data consistency and integrity in database-related scenarios.

- **Project Timeline and Risks:** The table below outlines key project milestones, owners, deadlines, and related risks with mitigation plan.

Milestone	Activity	Owner	Estimated Completion	Potential Risks & Mitigation
Week 1	Test Plan Finalization, Environment Setup (Tools Installation).	Team	End of week 1	**Risk:** Tool setup failures or conflicts. **Mitigation:** Schedule joint troubleshooting session
Week 2	Manual Test Case Creation & Review, Automation Framework Setup, API Test Collection Creation.	Team	End of week 2	**Risk:** Delay in automation framework stability. **Mitigation:** Prioritize high-level manual execution until framework is stable.
Week 3-4	Execution Cycles (Manual/Automation/API), Daily Defect Logging.	Team	End of week 4	**Risk:** Demo site unexpected downtime. **Mitigation:** Implement exponential backoff for automated tests, focus on documentation during downtime.
Week 5	Regression Cycles, Database Integrity Checks, Test Results Analysis.	Team	End of week 5	**Risk:** High volume of defects delaying analysis. **Mitigation:** Nirvana leads a dedicated triage meeting to categorize defects efficiently.
Week 6	Final Report Compilation, Project Documentation Submission.	Team	End of week 6	**Risk:** Incomplete documentation due to time pressure. **Mitigation:** Daily review of final deliverables against the submission checklist.