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**Roll No: 41 Div: B**

**Course: SPMT**

**Assignment No: 6**

### 1. Test Plan Identifier

* **Identifier:** IMS-TP-001
* **Version:** 1.0
* **Date:** sep 21, 2024

### 2. References

* **Project Requirements Document:** IMS-REQ-001
* **System Design Specification:** IMS-SDS-002
* **IEEE 829 Standard:** IEEE Std 829
* **Previous Test Reports:** IMS-TR-002

### 3. Introduction

* **Purpose:** This test plan outlines the approach and procedures for testing the Inventory Management System (IMS). It is designed to ensure that all functionalities of the IMS meet the specified requirements and quality standards.
* **Scope:** The plan covers functional, performance, and integration testing of the IMS, including inventory tracking, order management, and reporting features.
* **Audience:** Project managers, test engineers, developers, and quality assurance personnel.

### 4. Test Items

* **Software:** Inventory Management System (Version 2.3)
* **Modules:**
  + Inventory Tracking
  + Order Processing
  + Reporting and Analytics
  + User Management
* **Hardware:**
  + Server (Windows Server 2019)
  + Client machines (Windows 10)

### 5. Software Risk Issues

* **Known Risks:**
  + Integration issues with third-party supplier databases.
  + Performance degradation under high load conditions.
  + Data synchronization issues between distributed inventory locations.
* **Impact:** These risks may affect the accuracy of inventory records and system performance.

### 6. Features to be Tested

* **Inventory Tracking:** Accuracy of stock levels, item addition, and removal.
* **Order Processing:** Order creation, update, and fulfilment.
* **Reporting:** Generation of inventory reports, sales reports, and audit trails.
* **User Management:** User authentication, authorization, and role-based access control.

### 7. Features Not to be Tested

* **Legacy Interfaces:** Interfaces with outdated systems that are not part of the current scope.
* **Non-functional Aspects:** Usability testing and aesthetic design, as these are covered by separate evaluation processes.

### 8. Approach

* **Testing Methods:**
  + **Functional Testing:** Verify that each feature of the IMS functions according to the requirements.
  + **Performance Testing:** Assess system behaviour under varying loads.
  + **Integration Testing:** Ensure that the IMS integrates correctly with third-party systems.
* **Test Design Techniques:**
  + **Equivalence Partitioning:** For validating input fields.
  + **Boundary Value Analysis:** For testing limit conditions.
  + **Use Case Testing:** For verifying system functionalities against user scenarios.

### 9. Item Pass/Fail Criteria

* **Pass Criteria:**
  + All test cases must meet the specified functional and performance requirements.
  + No critical or major defects are identified during testing.
* **Fail Criteria:**
  + Any defect categorized as critical or major that impacts system functionality or performance.
  + Any deviation from the requirements that cannot be resolved within the test cycle.

### 10. Suspension Criteria and Resumption Requirements

* **Suspension Criteria:**
  + Critical defects that halt testing (e.g., system crashes).
  + Unavailability of required test environments.
* **Resumption Requirements:**
  + Defects must be resolved, and the system verified to be stable.
  + Required test environments must be restored and validated.

### 11. Test Deliverables

* **Test Plan Document:** This document.
* **Test Cases:** Detailed test cases for each feature.
* **Test Scripts:** Automated test scripts for performance and regression testing.
* **Test Logs:** Logs capturing the execution of tests and results.
* **Defect Reports:** Documentation of any issues discovered during testing.
* **Test Summary Report:** An overview of testing activities, results, and conclusions.

### 12. Remaining Test Tasks

|  |  |  |
| --- | --- | --- |
| **Task** | **Assigned To** | **Status** |
| Create Detailed Test Cases | Test Engineers |  |
| Setup Test Environment | Test Lead |  |
| Automate Test Scripts | Test Engineers |  |
| Conduct Performance Testing | Performance Analysts |  |

### 13. Environmental Needs

|  |  |
| --- | --- |
| **Hardware** | **Software** |
| Server with Windows Server 2019 | Inventory Management System (Version 2.3) |
| Client machines with Windows 10 | Database server (e.g., SQL Server 2019) |
|  | Testing tools (e.g., JMeter for performance testing, Selenium for automation) |

### 14. Staffing and Training Needs

* **Staffing:**
  + **Test Lead:** Oversees testing activities.
  + **Test Engineers:** Execute test cases and report defects.
  + **Performance Analysts:** Conduct performance testing.
* **Training:**
  + Training on IMS features and test procedures.
  + Familiarization with testing tools and environments.

### 15. Responsibilities

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Activity** | **Test Lead** | **Test Engineers** | **Performance Analysts** | **Developers** |
| Overall responsibility for the test plan execution and reporting | X |  |  |  |
| Execute functional and integration tests, log defects |  | X |  |  |
| Conduct and report on performance tests |  |  | X |  |
| Address and resolve defects reported during testing |  |  |  | X |

### 16. Schedule

|  |  |  |
| --- | --- | --- |
| **Activity** | **Start Date** | **End Date** |
| Test Planning | August 21, 2024 | August 28, 2024 |
| Test Case Development | August 29, 2024 | September 5, 2024 |
| Test Execution | September 6, 2024 | September 20, 2024 |
| Performance Testing | September 21, 2024 | September 25, 2024 |
| Test Reporting | September 26, 2024 | September 30, 2024 |

### 17. Planning Risks and Contingencies

* **Risks:**
  + Delays in test environment setup.
  + Unresolved critical defects.
* **Contingencies:**
  + Allocate additional time for environment configuration.
  + Establish a process for defect prioritization and rapid resolution.

### 18. Approvals

|  |  |  |
| --- | --- | --- |
| **Role** | **Name** | **Signature** |
| Project Manager | Prashant Dasnur |  |
| QA Lead | Vedant Bhosale |  |
| Development Manager | Dhiraj Aher |  |

### 19. Glossary

* **IMS:** Inventory Management System.
* **Functional Testing:** Testing the functionality of the software.
* **Performance Testing:** Testing how the system performs under load.
* **Integration Testing:** Testing the interfaces between integrated systems.
* **Defect:** A deviation from the expected behaviours or requirements.