Team 9 - IEEE 829 Standard Test Plan

**1. Test Plan Identifier**

Test Plan Name: ECS-TestPlan-Team9  
Version: 1.1  
Date: August 17, 2025  
Author: Team 9 – DeVry University Software Engineering  
Contact: Timothy Jones (timothybjones3@gmail.com)  
Revision History: Initial draft created for Week 2 deliverables.

**2. Introduction**

The purpose of this test plan is to define the testing scope, strategy, and resources for the Equipment Checkout System (ECS) for GB Manufacturing. This system aims to reduce tool losses and improve warehouse efficiency by tracking equipment check-in and check-out. This is a Level Test Plan for functional testing. References include:  
- Project Plan  
- IEEE SRS 830 (Requirements Specification)  
- Quality Assurance Plan  
- UML Diagrams (Use Case, Class, and VOPC)

**3. Test Items**

The following items will be tested in this phase:  
- User Login and Authentication  
- Equipment Check-Out Process  
- Equipment Check-In Process  
- Overdue Checkout Alerts  
- Requesting Materials

**4. Features to Be Tested**

From the user’s perspective, the following features will be tested (risk levels: H=High, M=Medium):  
1. Logging in – Validates credentials for system access. (H)  
2. Checking Out Equipment – Tracks equipment and updates status. (H)  
3. Checking In Equipment – Confirms returns and damaged tool reporting. (H)  
4. Overdue Checkout Alerts – Sends alerts for unreturned tools. (M)  
5. Requesting Materials – Submits and tracks material requests. (M)

**5. Features Not to Be Tested**

- Automated warehouse inventory optimization (future enhancement).  
- Integration with third-party inventory management systems.

**6. Approach**

A black-box testing approach will be used. Test cases will be derived from the UML diagrams and requirements specifications. Manual functional testing will be executed first, followed by regression testing during later SDLC phases. Test data will be manually prepared to simulate equipment and employee records.

**7. Item Pass/Fail Criteria**

- A test passes if actual results match expected results for all steps.  
- A test fails if functional discrepancies or data mismatches occur.  
- Completion criteria: 100% of high-priority test cases executed with ≤5% minor defects.

**8. Suspension and Resumption Criteria**

Testing will be suspended if:  
- Login system failures block all other tests.  
- Critical defects prevent major workflows.  
Testing will resume once blocking defects are resolved and revalidated.

**9. Test Deliverables**

- Test Plan (this document)  
- Test Design and Test Case Specifications  
- Test Procedure Specifications  
- Test Logs and Test Incident Reports  
- Test Summary Reports  
- The detailed Week 6 Test Cases document (5 cases total) is included as part of the deliverables.

**10. Test Tasks**

- Develop detailed test cases.  
- Execute functional and regression tests.  
- Record defects and maintain incident reports.  
- Deliver summary reports after execution.

**11. Environmental Needs**

- Test Server configured with ECS application and database.  
- Simulated barcode scanner for equipment checkout.  
- Manual test tracking spreadsheets or basic defect tracking tool.

**12. Responsibilities**

Team 9 Members:  
- Test Lead: Timothy Jones – Oversees test activities and reporting.  
- Testers: Harold Byrd, Tyler Feret, Angel Lively – Execute tests.

**13. Staffing and Training Needs**

- Familiarization with ECS workflows.  
- Basic training on test case execution and defect logging.

**14. Schedule**

- Test Case Design: Week 3  
- Test Execution: Weeks 5-6  
- Test Summary and Approval: Week 7

**15. Risks and Contingencies**

- Late delivery of ECS modules may delay execution.  
- Insufficient test data may reduce coverage (mitigation: use simulated data).

**16. Approvals**

This plan requires approval by Team 9 and course instructor.  
  
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Instructor Signature & Date  
  
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Team Lead Signature & Date