ERP System Comprehensive Test Plan

1. Introduction and Objectives

1.1 Purpose

The purpose of this document is to define the approach, scope, resources, schedule, and success criteria for all testing activities related to the implementation of the new ERP system.

1.2 Testing Objectives

The primary goal of testing is to ensure that the new ERP system:

1. Meets all documented business requirements and the approved system blueprint.
2. Processes end-to-end business transactions seamlessly across all integrated modules.
3. Is the system stable, does it perform adequately, and is it ready for the Go-Live cutover?
4. Accurately migrates and utilizes critical master and transactional data.

2. Scope of Testing

2.1 Modules In-Scope

- [e.g., Financial Accounting (GL, AP, AR)]
- [e.g., Procurement (Purchasing, Inventory Management)]
- [e.g., Sales Order Management]
- [e.g., Manufacturing/Production Planning]
- [e.g., Human Resources/Payroll Integration]

2.2 Testing Out-of-Scope

- [e.g., Testing of legacy systems after Go-Live (except for read-only archival)]
- [e.g., Custom development outside the approved blueprint]

3. Testing Strategy and Phases

Testing will be executed in three major phases, each with distinct goals and ownership:

Phase	Objective	Owner	Environment	Duration (Est.)
Unit Testing	Validate individual configurations, customizations, and development objects (e.g., reports, forms)	Technical Team/ Configurators	Development/ Sandbox	[2 Weeks]
System Integration Testing	Validate end-to-end business processes across multiple integrated modules (e.g., Quote-to-Cash, Procure-to-Pay)	Internal Project Team (SMEs)	Integration Environment	[4 Weeks]
User Acceptance Testing	Validate that the system meets business requirements and user expectations for daily tasks and critical workflows	End-Users/Key Business Users	Quality/Test Environment	[3 Weeks]
Performance/ Stress Testing	Validate system response times and stability under high user load	IT/Technical Team	Dedicated Performance Environment	[1 Week]
Data Migration Testing	Validate the completeness and accuracy of master and transactional data loaded into the QAS environment	Data Process Owners	QAS Environment	(Runs concurrently with SIT/UAT)

4. Roles and Responsibilities

Role	Primary Testing Responsibilities
Test Manager	Manages the overall plan, schedule, resources, and defect resolution process
Process Owners	Provides final sign-off on tested processes and UAT results for their respective business areas
Key Business Users (UAT)	Executes test scripts, documents results, and verifies system usability and accuracy
Technical ETL Team	Executes Unit Tests, supports environment maintenance, and resolves technical defects
Data Migration Lead	Manages data loads for testing, verifies data transformation rules, and reconciles data post-load

5. Test Environment and Data Requirements

- **Environment:** Testing will be conducted in a dedicated quality assurance environment that mirrors the production architecture
- **Access:** All testers must have unique logins and security roles assigned prior to testing kickoff
- **Data:** The QAS environment must be loaded with the latest iteration of cleansed and transformed
- **Mock Data:** Production data must never be used in the test environment
- **Cutover Data:** Final data migration test loads will use a frozen subset of production data to simulate the Go-Live cutover

6. Defect Management Process

1. **Logging:** All defects must be logged in the centralized defect tracking system (e.g., JIRA, Azure DevOps)
2. **Prioritization:** Defects will be prioritized using a standard scale:
   - **P1 (Critical):** Stops core business process (immediate fix required)
   - **P2 (High):** Major functional error or severe data issue (required before Go-Live)
   - **P3 (Medium):** Minor functional error or cosmetic issue (fix required post Go-Live)
   - **P4 (Low):** Suggestion or minor aesthetic change (discretionary fix)
3. **Resolution:** Technical/Functional teams will fix the defect and mark it as "Ready for Retest"
4. **Verification:** The original tester (or Test Manager) must re-execute the test case to verify the fix before closing the defect

7. Exit Criteria

Testing for a phase is complete only when all the following criteria are met:

- **Execution Rate:** 100% of prioritized (P1/P2) test cases have been executed
- **Pass Rate:** Minimum 95% overall Pass Rate achieved for SIT and UAT phases
- **Defect Closure:** All P1 and P2 defects are resolved, verified, and closed. All P3 defects are reviewed and accepted for remediation post-Go-Live
- **Sign-Off:** Formal sign-off is obtained from the Executive Sponsor and all relevant Process Owners

8. Sample Test Scenarios

A. System Integration Testing Sample Case: Procure-to-Pay

ID	Module(s)	Test Scenario Description	Expected Result	Status
SIT-P2P-001	MM, FI	Create Purchase Requisition (PR) > Approve PR > Convert PR to Purchase Order (PO) > Receive Goods (GR) > Post Vendor Invoice > Final Payment	Goods Receipt creates an inventory balance; Invoice Posting creates AP liability; Payment clears AP liability and reduces Cash/Bank GL	
SIT-P2P-002	MM, FI	Attempt to post an Invoice against a PO with a quantity variance exceeding 10% tolerance	The system must block the invoice posting and route it to the Procurement Manager for manual review/release	
SIT-P2P-003	MM, FI	Test currency conversion logic for a foreign currency PO/Invoice process	The conversion rate applied must be the one established in the system for the invoice date, posting to the correct GL accounts	

B. User Acceptance Testing Sample Case: Financial Close

ID	Module(s)	Test Scenario Description	Expected Result	Status
UAT-FC-001	FI	Execute the standard Month-End Close sequence, including calculating depreciation, allocating costs to departments, and generating internal reporting	The system successfully locks the ledger period, and the balance sheet/PandL reports match expected results	
UAT-FC-002	FI	Run the mandated external regulatory report (e.g., tax report, quarterly filing) using the new system data	The report output is correct, accurate, and satisfies all regulatory formatting and data requirements	

C. Data Migration Testing Sample Case

ID	Data Object	Test Scenario Description	Expected Result	Status
DM-CUST-001	Customer Master	Verify a sample set of 50 migrated customer records (names, addresses, credit limits) against the source data	100% data accuracy for key fields; all required lookups (e.g., Region Code) are valid in the ERP	
DM-PROD-002	Material Master	Validate that all critical manufacturing items have an active Bill of Materials (BOM) linked post-migration	The 'Active_BOM_ID' field is correctly populated for all manufactured items	