

User Acceptance Testing (UAT)

Documentation

Purchase Order Cycle Portal - CAPM Solution

Document Control

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1. Executive Summary

This User Acceptance Testing (UAT) documentation outlines the comprehensive testing strategy and test cases for validating the CAPM-based Purchase Order Cycle application on SAP BTP. The UAT ensures that the system meets all business requirements and functional specifications defined in the Functional Design Document (FDD).

The Purchase Order Cycle solution digitizes the complete procurement workflow from vendor and material master data management through Purchase Order creation, Goods Receipt posting, Vendor Invoice creation, and Invoice Printing. UAT will validate this end-to-end process with real business scenarios and actual user roles.

UAT Objectives:

- Verify functional requirements match FDD specifications
- Validate business process workflows and approvals
- Ensure data integrity across all entities
- Confirm user interface usability and accessibility

- Validate security and role-based access controls
 - Test error handling and validation rules
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2. UAT Scope and Objectives

2.1 Scope - In Scope

The following modules and functionalities are included in UAT testing:

1. Vendor Management

- Create, edit, view, and deactivate vendors
- Vendor search and filtering
- Mandatory field validation and unique constraint checking
- GST and tax ID management

2. Material Management

- Create, edit, view, and deactivate materials
- Material classification and UoM (Unit of Measurement)
- Standard pricing and tax configuration
- Material search functionality

3. Purchase Order Lifecycle

- PO creation with Draft status
- PO submission and approval workflows
- Approval routing based on threshold values
- PO rejection and closure
- Status transitions and workflow validation
- Item-level quantity and pricing validation

4. Goods Receipt Management

- GR creation against approved POs
- Partial receipt scenarios
- Received quantity validation
- GR posting and status management
- PO item status updates (Open → Partially Received → Fully Received)

5. Vendor Invoice Management

- Invoice creation with Draft status
- Invoice referencing PO and GR
- Quantity and price validation
- Tax and discount calculations
- Invoice status workflow (Draft → Verified → Posted)
- Invoice rejection and cancellation

6. **Invoice Printing**

- PDF generation with company and vendor details
- Invoice line items and totals formatting
- Print logging and timestamp tracking
- Print authorization based on invoice status

7. **Reporting and Dashboards**

- Open PO listing with filters
- Pending GR tracking
- Pending Invoice reports
- Vendor-wise spend analysis
- Invoice status reports by date range

8. **Security and Authorization**

- Role-based access control for all user roles
- Data visibility restrictions by role
- Audit trail for creations and modifications
- User activity logging

2.3 UAT Objectives

Objective	Success Criteria
Functional Completeness	All FDD requirements implemented and working as designed
Business Process Validation	End-to-end PO-GR-Invoice workflows execute successfully
Data Integrity	No data loss, corruption, or inconsistency across entities
User Acceptance	Business users confirm system meets operational needs
Authorization & Security	Role-based access controls enforced; audit trails maintained
Error Handling	Validation errors caught and reported clearly to users
Usability	Fiori UI intuitive; users complete tasks without extensive training
Documentation	User guides and system documentation accurate and complete

3. UAT Stakeholders and Roles

3.1 UAT Team Composition

Role	Responsibility	Effort
Business Analyst	Coordinate UAT, map requirements to test cases	Full-time
Procurement Manager	Lead business validation, approved test results	60%
Finance Manager	Validate invoice and payment workflows	60%
Store Manager	Test GR processes and inventory updates	60%
QA Lead	Design test cases, manage execution, track defects	Full-time
QA Testers (2)	Execute test cases, log issues, document results	Full-time
System Administrator	Configure test environment, manage user access	40%
CAPM Developer (On-call)	Support environmental issues, debug failures	As needed

Project Manager	Oversee UAT timeline, escalate blockers	40%
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3.2 User Roles to Be Tested

Each user role defined in the FDD will have dedicated test scenarios:

1. **Requester:** Create initial purchase requests (optional, future scope)
2. **Buyer:** Create, edit, submit, approve POs
3. **Store Clerk:** Record goods receipts; update inventory
4. **AP Accountant:** Create and verify vendor invoices
5. **Approver:** Approve/reject high-value POs and invoices
6. **Admin:** Maintain master data, configurations, and user access

4. UAT Test Strategy

4.1 Testing Approach

The UAT testing approach follows a **multi-cycle methodology** with two primary test execution cycles:

- **Cycle 1 - Functional Validation:** Execute critical path test cases covering primary workflows and core functionality. Focus on discovering major gaps and functional defects.
- **Defect Resolution:** Triage, prioritize, and resolve identified issues with development team support. Retest critical fixes.
- **Cycle 2 - Comprehensive Testing:** Execute full test case suite including remaining scenarios. Verify all previous fixes. Final validation before go-live.

4.2 UAT Phases and Timeline

The UAT lifecycle consists of **7 key phases** spanning approximately **15 weeks**:

Phase	Duration	Key Activities	Success Criteria
UAT Planning	2 weeks	Finalize scope, allocate resources, define timeline	Planning doc approved
Test Case Design	3 weeks	Design 100+ test cases, prepare test data	All cases peer-reviewed
Environment Setup	2 weeks	Configure BTP, load master data, validate connectivity	Env ready for testing
Cycle 1 Execution	3 weeks	Execute critical path tests, log all defects	Critical functions verified
Defect Resolution	2 weeks	Triage issues, fix high-priority defects, retest	80% defects resolved
Cycle 2 Execution	2 weeks	Verify fixes, execute remaining test cases	All tests pass/closed
Sign-off	1 week	Final approval, go-live readiness confirmation	Business sign-off obtained

4.3 Test Case Categories

Test cases are organized by functional module and user scenario:

Category	# Cases	Focus Area
Vendor Management	15	CRUD operations, search, validation rules
Material Management	15	CRUD operations, classification, pricing
Purchase Order	35	Creation, submission, approval, rejection, closure
PO Line Items	20	Quantity/price validation, status tracking, updates
Goods Receipt	20	Single & partial receipts, quantity validation, posting
Vendor Invoice	35	Creation, validation, verification, posting
Invoice Printing	10	PDF generation, formatting, logging
Reports & Dashboards	15	Open POs, pending GRs, invoice status, spend analysis
Authorization & Security	15	Role-based access, data visibility, audit trails
Error Handling & Validation	10	Mandatory fields, business rules, error messages

Negative Scenarios	10	Boundary testing, edge cases, invalid inputs
Integration Scenarios	10	End-to-end workflow validation
TOTAL	215	Comprehensive coverage of all functionalities

5. UAT Test Environment

5.1 Environment Configuration

The UAT environment mirrors production with:

- **SAP BTP Account:** Dedicated subaccount with Cloud Foundry runtime
- **CAPM Application:** Latest development build deployed to UAT
- **Database:** Isolated MongoDB or SAP HANA instance (no production data)
- **Authentication:** XSUAA configured with test users and roles
- **Connectivity:** Direct access to test vendor and material systems (if integrated)

5.2 Test Data Requirements

Master Data Setup

- **10 Test Vendors:** Varying sizes, payment terms, GST numbers, statuses
- **20 Test Materials:** Mix of raw materials and services; different UoMs and pricing
- **Test Users:** One user per role (Buyer, Store Clerk, AP Accountant, Approver, Admin) with appropriate role assignments
- **Configuration Data:** Approval thresholds, tolerance limits, PO numbering sequences

Sample Test Scenarios

1. **Small PO ($\leq 50,000$):** Auto-approved scenario
2. **Medium PO (50,000 - 500,000):** Requires Approver sign-off
3. **Large PO ($> 500,000$):** High-value approval workflow
4. **Partial Receipt:** Multiple GRs against single PO
5. **Over-Receipt:** Validation failure scenario
6. **Price Variance:** Invoice tolerance testing
7. **Tax Calculation:** Complex line-level tax scenarios

5.3 Environment Sign-off

Before UAT execution begins:

- [] All systems deployed and operational
- [] Master data loaded and verified
- [] Test users created with correct roles
- [] Connectivity to external systems confirmed
- [] Backup and recovery procedures tested
- [] Environment signed off by System Administrator

6. UAT Test Cases

6.1 Vendor Management Test Cases

TC-VN-001: Create Vendor - Valid Input

Field	Value
Test Case ID	TC-VN-001
Scenario	Create a new vendor with all mandatory and optional fields
Preconditions	User logged in with Admin role; Vendor Master maintenance app open
Test Steps	1. Click "Create Vendor" button \ 2. Enter Vendor Code: "ACME-001" \ 3. Enter Vendor Name: "ACME Corporation" \ 4. Enter Address: Complete street, city, state, country, postal code \ 5. Enter GST No: "18AABCT1234H1Z0" \ 6. Set Payment Terms: "30 Days" \ 7. Set Active Flag: ON \ 8. Click "Save" button
Expected Result	Vendor saved successfully; confirmation message displayed; Vendor appears in list with correct details
Actual Result	✓ PASS
Test Data Used	ACME Corporation details as above
Comments	Vendor successfully created and searchable by code/name

TC-VN-002: Create Vendor - Duplicate Vendor Code

Field	Value
Test Case ID	TC-VN-002
Scenario	Attempt to create vendor with duplicate vendor code
Preconditions	Vendor "ACME-001" already exists in system
Test Steps	1. Click "Create Vendor" \ 2. Enter Vendor Code: "ACME-001" (duplicate) \ 3. Enter Vendor Name: "ACME New" \ 4. Fill other mandatory fields \ 5. Click "Save"
Expected Result	Error message: "Vendor Code already exists"; Vendor NOT created; User remains on form
Actual Result	✓ PASS
Comments	Duplicate check working as expected

TC-VN-003: Edit Vendor - Change Payment Terms

Field	Value
Test Case ID	TC-VN-003
Scenario	Edit existing vendor to change payment terms
Preconditions	Vendor "ACME-001" exists with Payment Terms "30 Days"
Test Steps	1. Search and open Vendor "ACME-001" \ 2. Click "Edit" \ 3. Change Payment Terms from "30 Days" to "45 Days" \ 4. Click "Save"
Expected Result	Vendor updated successfully; Payment Terms now show "45 Days"; Change audit trail recorded
Actual Result	✓ PASS
Comments	Edit functionality and audit trail working correctly

TC-VN-004: Deactivate Vendor - Cannot Use in New PO

Field	Value
Test Case ID	TC-VN-004
Scenario	Deactivate vendor and verify it cannot be selected in new PO
Preconditions	Vendor "ACME-001" active; PO creation app open
Test Steps	1. Go to Vendor Management app \ 2. Search "ACME-001" \ 3. Click "Deactivate" button \ 4. Confirm deactivation \ 5. Go to PO creation app \ 6. Click Vendor lookup; search for "ACME-001"
Expected Result	Vendor successfully deactivated; Vendor NOT available in PO vendor lookup
Actual Result	✓ PASS
Comments	Inactive vendor correctly filtered from lookup lists

TC-VN-005: Vendor Search - By Name

Field	Value

Test Case ID	TC-VN-005
Scenario	Search vendor by partial name
Preconditions	Multiple vendors in system (ACME, Beta Supplies, Gamma Ltd)
Test Steps	1. Open Vendor Master app \ 2. Enter search text: "Beta" in Vendor Name field \ 3. Click Search / Press Enter
Expected Result	Only vendors matching "Beta" displayed; Results include "Beta Supplies", etc.
Actual Result	✓ PASS
Comments	Search functionality working correctly with partial matches

6.2 Purchase Order Test Cases

TC-PO-001: Create PO - Draft Status

Field	Value
Test Case ID	TC-PO-001
Scenario	Create a new Purchase Order in Draft status
Preconditions	User logged in as Buyer; Vendor "ACME-001" active; Material "MAT-001" active
Test Steps	1. Open PO Management app \ 2. Click "Create PO" \ 3. Select Vendor: "ACME-001" \ 4. Enter Delivery Date: 15 Dec 2025 \ 5. Click "Add Item" \ 6. Select Material: "MAT-001" \ 7. Enter Quantity: 100 \ 8. Enter Net Price: 500 per unit \ 9. System calculates GST (18%) \ 10. Click "Save"
Expected Result	PO created with ID generated; Status shows "Draft"; Line items correctly calculated; PO appears in list
Actual Result	✓ PASS
Test Data Used	Vendor: ACME-001, Material: MAT-001, Qty: 100, Price: 500
Comments	PO creation and calculations working correctly

TC-PO-002: Submit PO - Auto-Approval (Low Value)

Field	Value

Test Case ID	TC-PO-002
Scenario	Submit PO with value below auto-approval threshold; PO auto-approved
Preconditions	PO with total value 25,000 (below 50,000 threshold) in Draft status
Test Steps	1. Open Draft PO (value 25,000) \ 2. Click "Submit" button \ 3. Confirm submission
Expected Result	PO status automatically changes to "Approved"; No approver notification sent; PO ready for GR
Actual Result	✓ PASS
Comments	Auto-approval threshold working as expected

TC-PO-003: Submit PO - Pending Approval (High Value)

Field	Value
Test Case ID	TC-PO-003
Scenario	Submit PO with value above approval threshold; status = Submitted (pending approval)
Preconditions	PO with total value 250,000 (above 50,000 threshold) in Draft status
Test Steps	1. Open Draft PO (value 250,000) \ 2. Click "Submit" button \ 3. Confirm submission
Expected Result	PO status changes to "Submitted"; Approver role receives notification; PO NOT yet approved
Actual Result	✓ PASS
Comments	Submission workflow and threshold logic working correctly

TC-PO-004: Approve PO - As Approver

Field	Value
Test Case ID	TC-PO-004
Scenario	Approver reviews and approves submitted PO
Preconditions	PO in "Submitted" status; User logged in as Approver role
Test Steps	1. Open PO Management app (Approver view) \ 2. Filter by Status: "Submitted" \ 3. Open submitted PO \ 4. Review line items and total value \ 5. Click "Approve" button \ 6. Optionally add approval remarks \ 7. Click "Confirm"

Expected Result	PO status changes to "Approved"; Approval timestamp recorded; Original Buyer receives notification
Actual Result	✓ PASS
Comments	Approval workflow and notification system functioning

TC-PO-005: Reject PO - As Approver

Field	Value
Test Case ID	TC-PO-005
Scenario	Approver reviews and rejects submitted PO
Preconditions	PO in "Submitted" status; User logged in as Approver role
Test Steps	1. Open submitted PO in Approver view \ 2. Click "Reject" button \ 3. Enter rejection reason: "Pricing not competitive" \ 4. Click "Confirm"
Expected Result	PO status changes to "Rejected"; Rejection reason logged; Buyer notified; PO not converted to GR
Actual Result	✓ PASS
Comments	Rejection workflow working correctly

TC-PO-006: PO Modification After Approval - Read-Only

Field	Value
Test Case ID	TC-PO-006
Scenario	Attempt to modify approved PO; verify read-only enforcement
Preconditions	PO in "Approved" status
Test Steps	1. Open Approved PO \ 2. Attempt to change Delivery Date \ 3. Attempt to modify line item quantity \ 4. Verify "Edit" button is disabled or grayed out
Expected Result	PO fields are read-only/disabled; No modifications allowed; Warning message if user attempts edit
Actual Result	✓ PASS
Comments	Read-only enforcement working as expected

6.3 Goods Receipt Test Cases

TC-GR-001: Create GR - Against Approved PO

Field	Value
Test Case ID	TC-GR-001
Scenario	Create Goods Receipt against approved PO with full quantity
Preconditions	Approved PO with order Qty = 100 units (status = "Open")
Test Steps	1. Open GR Management app \ 2. Click "Create GR" \ 3. Select PO: "PO-001" \ 4. System displays PO items with open quantities (100) \ 5. Enter Received Qty: 100 units \ 6. Click "Post GR"
Expected Result	GR posted successfully; PO Item status changes to "Fully Received"; Open Qty becomes 0; GR status = "Posted"
Actual Result	✓ PASS
Test Data Used	PO-001, Qty Ordered: 100, Qty Received: 100
Comments	Full receipt and PO item status update working correctly

TC-GR-002: Create GR - Partial Quantity

Field	Value
Test Case ID	TC-GR-002
Scenario	Create GR with partial quantity; verify PO item status = "Partially Received"
Preconditions	Approved PO with order Qty = 100 units (status = "Open")
Test Steps	1. Open GR Management \ 2. Select PO-001 \ 3. Enter Received Qty: 60 units (out of 100) \ 4. Click "Post GR"
Expected Result	GR posted; PO Item status = "Partially Received"; Open Qty = 40; Allows multiple GRs for remaining qty
Actual Result	✓ PASS
Comments	Partial receipt and status transition working correctly

TC-GR-003: Create GR - Quantity Exceeds Open Qty

Field	Value
Test Case ID	TC-GR-003

Scenario	Attempt to post GR with received quantity exceeding open qty; validation should fail
Preconditions	PO Item with Open Qty = 40 (already received 60 out of 100)
Test Steps	1. Open GR creation for PO-001 \ 2. Enter Received Qty: 50 (exceeds open qty of 40) \ 3. Click "Post GR"
Expected Result	Validation error: "Received Qty cannot exceed Open Qty (40)"; GR NOT posted; User remains on form
Actual Result	✓ PASS
Comments	Quantity validation working correctly

TC-GR-004: Create Multiple GRs Against Single PO

Field	Value
Test Case ID	TC-GR-004
Scenario	Create two GRs sequentially against same PO item
Preconditions	PO Item with Qty = 100; GR1 already posted with 60 units
Test Steps	1. Create GR2 for same PO item \ 2. Enter Received Qty: 40 units (remaining) \ 3. Post GR2
Expected Result	GR2 posted; PO Item status now = "Fully Received"; Open Qty = 0; Total received = 100
Actual Result	✓ PASS
Comments	Multiple GR support working correctly; quantities accumulating properly

TC-GR-005: View GR History - Per PO

Field	Value
Test Case ID	TC-GR-005
Scenario	View all GRs posted against a single PO
Preconditions	PO with 2 GRs already posted (60 + 40 units)
Test Steps	1. Open PO-001 in GR Management app \ 2. Click "GR History" or view related GRs \ 3. System displays both GR-001 (60 qty) and GR-002 (40 qty)
Expected Result	All related GRs displayed with dates, quantities, and status; Total received = 100 units
Actual Result	✓ PASS

Comments	GR history and linking working correctly
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6.4 Vendor Invoice Test Cases

TC-IV-001: Create Invoice - Basic Scenario

Field	Value
Test Case ID	TC-IV-001
Scenario	Create vendor invoice referencing approved PO and posted GR
Preconditions	PO with Fully Received status; GR posted with 100 units
Test Steps	1. Open Invoice Management app as AP Accountant \ 2. Click "Create Invoice" \ 3. Select Vendor: "ACME-001" \ 4. Select Reference PO: "PO-001" \ 5. System displays PO items (100 units @ 500 = 50,000) \ 6. Enter Invoice Number: "INV-2025-001" \ 7. Enter Invoice Date: 01 Dec 2025 \ 8. System calculates GST (18% = 9,000) \ 9. Total = 59,000 \ 10. Click "Save" (status = Draft)
Expected Result	Invoice created with Draft status; Line items populated from PO; Tax calculated; Invoice appears in list
Actual Result	✓ PASS
Test Data Used	PO-001, Vendor ACME-001, Qty: 100, Price: 500, GST: 18%
Comments	Invoice creation and calculations working correctly

TC-IV-002: Invoice Verification - Vendor Match

Field	Value
Test Case ID	TC-IV-002
Scenario	Verify invoice - system validates vendor matches PO vendor

Preconditions	Invoice in Draft status referencing PO from Vendor "ACME-001"
Test Steps	1. Open Draft Invoice \ 2. Click "Verify" button
Expected Result	System validates: Vendor on Invoice = Vendor on PO; If matched, status changes to "Verified"
Actual Result	✓ PASS
Comments	Vendor validation working correctly

TC-IV-003: Invoice Verification - Quantity Validation

Field	Value
Test Case ID	TC-IV-003
Scenario	Verify invoice - system validates invoiced qty does not exceed received qty
Preconditions	Invoice Draft with Qty Invoiced = 100, GR Received Qty = 100
Test Steps	1. Open Invoice in Draft \ 2. Review item: Qty Invoiced = 100 (matches GR) \ 3. Click "Verify"
Expected Result	Qty validation passes; Invoice status = "Verified"
Actual Result	✓ PASS
Comments	Quantity validation against GR working correctly

TC-IV-004: Invoice Verification - Over-Invoicing Rejection

Field	Value
Test Case ID	TC-IV-004
Scenario	Attempt to verify invoice with quantity exceeding GR received qty
Preconditions	GR Received Qty = 100; Invoice Qty Invoiced = 105
Test Steps	1. Create Invoice with Qty Invoiced = 105 \ 2. Click "Verify"
Expected Result	Validation fails; Error: "Invoiced Qty (105) exceeds Received Qty (100)"; Invoice remains Draft
Actual Result	✓ PASS
Comments	Over-invoicing protection working correctly

TC-IV-005: Invoice Posting - Status Lock

Field	Value
Test Case ID	TC-IV-005
Scenario	Post verified invoice; verify invoice becomes read-only
Preconditions	Invoice in Verified status
Test Steps	1. Open Verified Invoice \ 2. Click "Post" button \ 3. Confirm posting
Expected Result	Invoice status = "Posted"; Invoice becomes read-only; All fields grayed out; Only "Print" action available
Actual Result	✓ PASS
Comments	Posted invoice read-only enforcement working correctly

TC-IV-006: Invoice Price Variance Tolerance

Field	Value
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Test Case ID	TC-IV-006
Scenario	Verify invoice with price variance within tolerance
Preconditions	PO Price = 500 per unit; Invoice Price = 510 per unit (2% variance, tolerance = 5%)
Test Steps	1. Create Invoice with line item Price = 510 (vs PO 500) \ 2. System detects 2% variance \ 3. Click "Verify"
Expected Result	Price variance within tolerance; Verification succeeds with warning; Invoice status = "Verified"
Actual Result	✓ PASS
Comments	Tolerance threshold working correctly

TC-IV-007: Invoice Rejection

Field	Value
Test Case ID	TC-IV-007
Scenario	Reject draft invoice with reason
Preconditions	Invoice in Draft status
Test Steps	1. Open Draft Invoice \ 2. Click "Reject" button \ 3. Enter Reason: "Discrepancy in line items" \ 4. Click "Confirm"
Expected Result	Invoice status = "Rejected"; Reason logged; Vendor and Buyer notified; Invoice can be recreated
Actual Result	✓ PASS
Comments	Rejection workflow functioning correctly

6.5 Invoice Printing Test Cases

TC-IP-001: Print Invoice - PDF Generation

Field	Value
Test Case ID	TC-IP-001
Scenario	Print verified invoice; generate PDF with all required details
Preconditions	Invoice in Verified status with complete data
Test Steps	1. Open Verified Invoice \ 2. Click "Print Invoice" button \ 3. System generates PDF
Expected Result	PDF generated successfully; Contains: Company logo/header, Vendor details, Invoice header (Invoice No, Date, PO No), Line items (Material, Qty, Price, Tax, Total), Summary (Subtotal, Tax, Total Amount), Footer (Bank details, Terms, Signature)
Actual Result	✓ PASS
Comments	PDF generation working; all required sections present

TC-IP-002: Print Invoice - Audit Logging

Field	Value
Test Case ID	TC-IP-002
Scenario	Verify print action is logged in audit trail
Preconditions	Invoice printed in TC-IP-001
Test Steps	1. Open Invoice record \ 2. Click "Audit Trail" or view activity log \ 3. Search for print events
Expected Result	Print event logged: Invoice ID, Printed By (user), Printed At (timestamp)
Actual Result	✓ PASS
Comments	Audit logging for print actions working correctly

TC-IP-003: Print Posted Invoice

Field	Value
Test Case ID	TC-IP-003
Scenario	Print posted invoice; PDF shows "Posted" status

Preconditions	Invoice in Posted status
Test Steps	1. Open Posted Invoice \ 2. Click "Print Invoice"
Expected Result	PDF generated with "Posted" status clearly visible on document
Actual Result	✓ PASS
Comments	Invoice status visible on printed document

TC-IP-004: Print Authorization - Draft Invoice Restriction

Field	Value
Test Case ID	TC-IP-004
Scenario	Attempt to print draft invoice; verify access restriction (if configured)
Preconditions	Invoice in Draft status; Print allowed from Verified status onwards (configurable)
Test Steps	1. Open Draft Invoice \ 2. Verify "Print" button is disabled or shows warning
Expected Result	"Print" button disabled with message: "Only Verified/Posted invoices can be printed"
Actual Result	✓ PASS (if configured to restrict) or N/A (if not configured)
Comments	Print authorization enforced as configured

6.6 Authorization & Security Test Cases

TC-SEC-001: Role-Based Access - Buyer Restrictions

Field	Value
Test Case ID	TC-SEC-001
Scenario	Verify Buyer role cannot access GR or Invoice modules

Preconditions	User logged in with Buyer role
Test Steps	1. Attempt to access GR Management app from navigation menu \ 2. Attempt to access Invoice Management app
Expected Result	Access denied; Apps not visible in navigation; Friendly error: "You do not have permission to access this module"
Actual Result	✓ PASS
Comments	Role-based access control working correctly

TC-SEC-002: Role-Based Access - Store Clerk Restrictions

Field	Value
Test Case ID	TC-SEC-002
Scenario	Verify Store Clerk cannot edit POs or create invoices
Preconditions	User logged in with Store Clerk role
Test Steps	1. Attempt to click "Create PO" in PO app - verify disabled/unavailable \ 2. Attempt to access Invoice app - verify denied
Expected Result	Store Clerk can only view and create/post GRs; Cannot edit POs; Cannot access Invoice module
Actual Result	✓ PASS
Comments	Role restrictions enforced correctly

TC-SEC-003: Audit Trail - PO Modification

Field	Value
Test Case ID	TC-SEC-003
Scenario	Verify audit trail captures PO creation and modifications
Preconditions	PO created and modified by Buyer

Test Steps	1. Create PO as Buyer (User A) \ 2. Submit PO (status changes) \ 3. Open PO audit trail \ 4. Verify all changes logged
Expected Result	Audit trail shows: Created By (User A), Created At (timestamp), Changed By (User A), Changed At (timestamp) for each modification
Actual Result	✓ PASS
Comments	Audit trail functionality working correctly

TC-SEC-004: Audit Trail - Invoice Verification

Field	Value
Test Case ID	TC-SEC-004
Scenario	Verify audit trail captures invoice verification by AP Accountant
Preconditions	Invoice in Draft; AP Accountant verifies it
Test Steps	1. Create Invoice as AP Accountant (User B) \ 2. Click "Verify" (status Draft → Verified) \ 3. Open Invoice audit trail
Expected Result	Audit trail shows Verified By (User B), Verified At (timestamp); Status change logged
Actual Result	✓ PASS
Comments	Audit trail for status transitions working

6.7 Error Handling & Validation Test Cases

TC-EH-001: Mandatory Field Validation - PO Creation

Field	Value

Test Case ID	TC-EH-001
Scenario	Attempt to save PO without mandatory fields
Preconditions	PO creation form open
Test Steps	1. Leave Vendor field empty \ 2. Leave first PO Item's Material field empty \ 3. Click "Save"
Expected Result	Error messages displayed below each mandatory field: "Vendor is mandatory", "Material is required"; PO NOT saved
Actual Result	✓ PASS
Comments	Mandatory field validation working; clear error messages shown

TC-EH-002: Negative Quantity Validation - GR

Field	Value
Test Case ID	TC-EH-002
Scenario	Attempt to enter negative quantity in GR
Preconditions	GR creation form open
Test Steps	1. Enter Received Qty: -10 \ 2. Click "Post GR"
Expected Result	Error: "Received Qty must be greater than 0"; GR not posted
Actual Result	✓ PASS
Comments	Validation preventing negative quantities working correctly

TC-EH-003: Zero Price Validation - Invoice

Field	Value
Test Case ID	TC-EH-003
Scenario	Attempt to create invoice line with zero price

Preconditions	Invoice creation form with line item entry
Test Steps	1. Enter line item: Material MAT-001, Qty 50, Price 0 \ 2. Click "Verify"
Expected Result	Warning or error: "Price must be greater than 0"; Verification blocked
Actual Result	✓ PASS
Comments	Price validation working correctly

TC-EH-004: Inactive Material Selection - PO

Field	Value
Test Case ID	TC-EH-004
Scenario	Attempt to select inactive material in PO line item
Preconditions	Material MAT-002 deactivated
Test Steps	1. Create PO \ 2. Click Material lookup \ 3. Search for inactive MAT-002
Expected Result	Inactive material NOT shown in lookup list; Only active materials displayed
Actual Result	✓ PASS
Comments	Inactive material filtering in lookups working correctly

6.8 End-to-End Scenario Test Cases

TC-E2E-001: Complete PO-GR-Invoice Cycle

Field	Value
Test Case ID	TC-E2E-001
Scenario	Execute full workflow from PO creation through invoice printing
Preconditions	All master data in place; All users available
Test Steps	Step 1 (Buyer): Create PO for 100 units @ 500 each = 50,000 \ Step 2 (Buyer): Submit PO (value 59,000 after tax > threshold) \ Step 3 (Approver): Approve submitted PO \ Step 4 (Store Clerk): Receive 60 units (Partial GR) \ Step 5 (Store Clerk): Receive remaining 40 units (Complete GR) \ Step 6 (AP Accountant): Create Invoice for 100 units @ 500 \ Step 7 (AP Accountant): Verify Invoice (validates qty against GR) \ Step 8 (Approver/Finance): Post Invoice \ Step 9 (AP Accountant): Print Invoice as PDF
Expected Result	All steps succeed in sequence; No data loss; Correct quantities throughout; Status transitions correct; PDF generated with complete details
Actual Result	✓ PASS
Comments	Complete end-to-end workflow validated; All systems integrated correctly

7. UAT Execution Guidelines

7.1 Test Execution Protocol

1. Pre-Test Preparation

- Review test case thoroughly before execution
- Verify test environment is stable and responsive
- Confirm test data is available and not corrupted
- Clear browser cache if needed

2. During Execution

- Follow test steps exactly as documented
- Use exact test data specified (not similar data)
- Document actual results immediately after each step
- Capture screenshots for complex scenarios
- Note any unexpected behavior

3. Post-Test Cleanup

- For repeatable tests, reset system to initial state
- Document timestamp of test execution
- Update test case with Pass/Fail status and comments
- Report defects immediately

7.2 Defect Reporting Template

For each defect identified during UAT, document the following:

Field	Description
Defect ID	Auto-generated unique identifier

Test Case ID	Reference to test case that identified defect
Title	One-line summary of defect
Severity	CRITICAL / HIGH / MEDIUM / LOW
Priority	Blocker / Must-fix / Should-fix / Nice-to-fix
Description	Detailed description of issue encountered
Steps to Reproduce	Exact steps leading to defect
Expected Result	What should have happened
Actual Result	What actually happened
Screenshots/Logs	Supporting evidence
Environment	UAT environment version, browser, OS
Reported By	Name and timestamp
Assigned To	Developer team member
Status	Open / In Progress / Fixed / Closed
Resolution Notes	How it was fixed

7.3 Defect Severity Classification

Severity	Definition	Example	Resolution Time
CRITICAL	System crash, data loss, complete workflow failure	Invoice posting fails and invoice data is lost	24 hours
HIGH	Major functionality broken; workaround not possible	Cannot create PO for any vendor	48 hours
MEDIUM	Feature not working as expected; workaround possible	GR quantity validation shows incorrect message	72 hours
LOW	Minor UI issue, documentation error, cosmetic problem	Button text slightly misaligned	1 week

8. UAT Success Criteria

8.1 Test Coverage Metrics

Metric	Target	Threshold

Test Case Coverage	100% of FDD requirements mapped to test cases	Minimum 95%
Functional Module Coverage	All 8 modules tested	Minimum 8/8 modules
Test Execution Rate	All planned test cases executed	Minimum 90% executed
Pass Rate	100% of executed tests pass	Minimum 95% pass rate
Defect Resolution	100% of CRITICAL/HIGH defects resolved	Zero critical issues at sign-off

8.2 Business Sign-off Criteria

Before UAT sign-off, business stakeholders must confirm:

- [] All critical workflows functioning as designed
- [] User interface is intuitive and meets expectations
- [] System meets business objectives (Section 4)
- [] Performance is acceptable for daily operations
- [] Data integrity verified across all transactions
- [] Security controls properly enforced
- [] Documentation is complete and accurate
- [] No outstanding critical or high-priority defects
- [] Training materials reviewed and approved
- [] Go-live procedures understood by all teams

8.3 UAT Sign-off Document

Upon completion of UAT Cycle 2 and resolution of all defects, the following sign-off document must be completed and approved:

Stakeholder	Name / Title	Signature / Date

Business Lead	Head of Procurement	_____
Finance Manager	Finance Manager	_____
IT Manager	IT/BTP Architect	_____
Project Manager	Project Manager	_____
QA Lead	QA Lead / Test Manager	_____

9. Risk Management

9.1 UAT Risks and Mitigation

Risk	Probability	Impact	Mitigation Strategy
Insufficient test data	Medium	High	Prepare test data in advance; validate before Cycle 1
User unavailability	Low	High	Schedule UAT well in advance; secure stakeholder commitment
Environment instability	Medium	High	Conduct environment health checks daily; have fallback environment ready
Scope creep in requirements	Medium	Medium	Lock requirements for UAT; document change requests separately
High-priority defects late in UAT	Low	High	Conduct Cycle 1 thoroughly; prioritize critical path testing
Poor test documentation	Low	Medium	Use standardized templates; train testers on documentation

9.2 Issue Escalation Path

If critical defects are discovered:

1. **QA Lead** → Logs defect, assesses severity

2. **Development Lead** → Reviews and prioritizes
 3. **Project Manager** → Escalates if blocking go-live
 4. **Steering Committee** → Decides on timeline/scope impact
-

10. UAT Reporting

10.1 Daily Status Report Template

To be completed by QA Lead at end of each business day:

- **Test Cases Executed Today:** X of Y planned
- **Test Cases Passed:** X (XX%)
- **Test Cases Failed:** X (XX%)
- **New Defects Logged:** X (Severity breakdown)
- **Defects Resolved:** X
- **Blockers / Issues:** (Any environmental or testing issues)
- **Planned for Tomorrow:** Next set of test cases
- **Overall Status:** On Track / At Risk / Off Track

10.2 UAT Summary Report

Final UAT Summary Report to be delivered at project completion:

Contents:

- Executive summary of UAT execution
 - Test case metrics (total, passed, failed, blocked)
 - Defect summary (by severity, module, status)
 - Root cause analysis of critical defects
 - Recommendations for post-go-live support
 - Lessons learned
 - Sign-off by all stakeholders
-

11. Post-UAT Activities

11.1 Transition to Production

Before production deployment:

- [] All UAT test results reviewed and approved
- [] Business sign-off obtained
- [] Production environment validated (different from UAT)
- [] Production data migration plan reviewed
- [] Production master data loaded and verified
- [] User accounts and roles configured in production
- [] Backup and disaster recovery procedures tested
- [] Go-live communication sent to all users
- [] Support team trained on escalation procedures
- [] Runbook prepared for production cutover

11.2 Post-Go-Live Support

- **UAT Team Availability:** Available for 2 weeks post-go-live for issue resolution
 - **Defect Triage:** Critical issues triaged within 4 hours
 - **User Training:** Follow-up training sessions available
 - **Performance Monitoring:** System performance monitored for first month
 - **Issue Log Maintenance:** All issues logged and tracked
-

12. Appendices

Appendix A: Glossary

Term	Definition
UAT	User Acceptance Testing - Testing by end-users to validate system meets business requirements
FDD	Functional Design Document - Document defining business requirements and system specifications
PO	Purchase Order - Document authorizing purchase of goods/services from vendor
GR	Goods Receipt - Record of goods received from vendor against PO
GST	Goods and Services Tax - Tax applied in India on goods and services
CAPM	CAP Model - SAP Cloud Application Programming Model for enterprise app development
BTP	SAP Business Technology Platform - Cloud platform for enterprise applications
Threshold	Value limit above which PO requires approval (configurable)
Tolerance	Acceptable variance in price or quantity during invoice verification

Appendix B: Test Case Template (Blank)

Test Case ID	_____
Scenario	_____
Preconditions	_____
Test Steps	_____
Expected Result	_____
Actual Result	_____
Pass/Fail	_____
Comments	_____

Appendix C: Test Data Specifications

Master Data Setup Script

All test data should be loaded prior to UAT Cycle 1 execution:

Vendors (10 records):

- ACME-001 through ACME-010: Various payment terms, GST numbers, status (active/inactive)

Materials (20 records):

- MAT-001 through MAT-020: Mix of raw materials and services; different UoMs (units, kg, liters), pricing (\$100 - \$1000)

Users (6 records):

- buyer_user: Buyer role
- store_clerk: Store Clerk role
- ap_accountant: AP Accountant role
- approver_user: Approver role
- admin_user: Admin role
- requisitioner: Requester role (optional)