

Purchase Requisition & Approval System

Comprehensive Requirements Document
Appian Low-Code Platform Application

Project Overview	
Project Name	Purchase Requisition & Approval System
Document Version	1.0
Date	August 2025
Platform	Appian Low-Code Platform
Document Type	Functional & Technical Requirements
Complexity Level	Intermediate to Advanced

1. Executive Summary

1.1 Project Overview

The Purchase Requisition & Approval System is an advanced Appian-based procurement application designed to streamline the entire purchase request lifecycle from initial requisition through purchase order generation. The system enforces financial controls, automates approval workflows, and provides comprehensive vendor management capabilities.

1.2 Business Objectives

- Automate purchase requisition and approval processes
- Enforce budgetary controls and spending policies
- Improve vendor management and procurement efficiency
- Provide real-time visibility into procurement pipeline
- Generate comprehensive procurement analytics and reporting
- Ensure compliance with organizational procurement policies
- Reduce manual processing time and errors

1.3 Success Criteria

- 75% reduction in procurement cycle time
- 100% compliance with approval workflows
- 90% improvement in budget tracking accuracy
- 50% reduction in procurement administrative costs
- Real-time spending visibility across all departments

2. Functional Requirements

2.1 User Roles and Permissions

2.1.1 Requisitioner (Employee)

Permissions:

- Create and submit purchase requisitions
- View personal requisition history and status
- Modify pending requisitions (before approval)
- Upload supporting documents and specifications
- Track requisition progress through approval workflow
- Receive notifications on status changes

2.1.2 Department Manager

Permissions:

- All requisitioner permissions
- Approve/reject requisitions within department budget
- View department spending analytics and reports
- Manage department budget allocations
- Delegate approval authority during absence
- Override system validations for emergency purchases

2.1.3 Finance Manager

Permissions:

- All department manager permissions
- Approve high-value requisitions (>\$10,000)
- Manage organizational budgets and cost centers
- Configure approval thresholds and financial controls
- Generate financial reports and audit trails
- Manage vendor financial information and terms

2.1.4 Procurement Administrator

Permissions:

- All finance manager permissions
- Manage vendor master data and relationships
- Configure procurement policies and workflows
- Generate purchase orders from approved requisitions
- Manage supplier catalogs and pricing
- Process vendor payments and contracts

2.2 Core Functional Requirements

2.2.1 Requisition Management

FR-001: Requisition Creation

Description: Comprehensive requisition creation with validation and budget checking.

Requirements:

- Multi-line item requisitions with detailed specifications
- Real-time budget validation against cost center allocations
- Vendor selection from approved vendor catalog
- Automatic calculation of totals, taxes, and delivery costs
- Supporting document attachment capability
- Draft save functionality for incomplete requisitions

FR-002: Approval Workflow Engine

Description: Dynamic approval routing based on amount, category, and organizational hierarchy.

Requirements:

- Multi-level approval based on requisition value
- Parallel approval for cross-functional purchases
- Escalation mechanism for overdue approvals
- Emergency approval process for urgent purchases
- Delegation and substitution capabilities
- Comprehensive audit trail for all approvals

FR-003: Budget Management

Description: Real-time budget tracking and enforcement across cost centers.

Requirements:

- Real-time budget consumption tracking
- Cost center and project-based budget allocation
- Budget variance alerts and notifications
- Encumbrance management for approved requisitions
- Budget forecasting and planning tools
- Multi-year budget management capability

2.2.2 Vendor Management

FR-004: Vendor Master Data

Description: Comprehensive vendor information management and catalog.

Requirements:

- Complete vendor profile with contact and financial information
- Vendor performance tracking and rating system
- Vendor document management (contracts, certificates)
- Preferred vendor designation and routing
- Vendor catalog integration with item specifications
- Vendor compliance and audit trail management

2.2.3 Purchase Order Management

FR-005: Purchase Order Generation

Description: Automated PO creation from approved requisitions.

Requirements:

- Automatic PO generation from approved requisitions
- PO consolidation for multiple requisitions to same vendor
- Customizable PO templates and formats
- Electronic PO transmission to vendors
- PO tracking and delivery status management
- Three-way matching (PO, Receipt, Invoice)

3. Approval Matrix and Business Rules

3.1 Approval Thresholds

Amount Range	Required Approvers	Special Conditions	Maximum Processing Time
\$0 - \$1,000	Department Manager	Budget availability check	2 business days
\$1,001 - \$5,000	Department Manager + Budget Owner	Vendor pre-approval required	3 business days
\$5,001 - \$10,000	Department Manager + Finance Manager	Three quotes required	5 business days
\$10,001 - \$50,000	Finance Manager + Procurement	Competitive bidding process	10 business days
>\$50,000	Executive Approval Required	Board approval may be required	15 business days

3.2 Category-Specific Rules

Category	Special Requirements	Additional Approvers	Documentation
IT Equipment	IT Security review required	IT Manager	Technical specifications
Professional Services	Legal review for contracts	Legal Department	Statement of work
Capital Equipment	Asset management registration	Asset Manager	ROI analysis
Marketing Materials	Brand compliance check	Marketing Manager	Brand guidelines approval

4. Technical Requirements

4.1 Appian Design Objects

4.1.1 Record Types

Primary Records:

- Requisition Record:** Main requisition data with line items and approval status
 - Vendor Record:** Vendor master data with performance metrics
 - Budget Record:** Cost center budgets and allocations
 - Purchase Order Record:** Generated POs with delivery tracking
 - Approval Workflow Record:** Workflow tracking and decision history
- ##### Supporting Records:
- Employee Record:** Employee information and approval hierarchy
 - Cost Center Record:** Organizational cost centers and budgets
 - Category Record:** Purchase categories with specific rules
 - Contract Record:** Vendor contracts and terms
 - Invoice Record:** Invoice matching and payment tracking

4.1.2 Process Models

Core Processes:

- Requisition Approval Process:** Main approval workflow with dynamic routing
- Budget Validation Process:** Real-time budget checking and encumbrance
- PO Generation Process:** Automated purchase order creation
- Vendor Onboarding Process:** New vendor registration and approval
- Three-Way Matching Process:** PO, receipt, and invoice reconciliation
- Notification Process:** Email and system notifications

4.1.3 User Interfaces (SAIL)

Requisitioner Interfaces:

- Multi-line requisition creation form with catalog integration
 - Personal requisition dashboard and tracking
 - Vendor search and selection interface
 - Document upload and management
- ##### Approver Interfaces:
- Approval workqueue with bulk actions
 - Requisition review and analysis dashboard
 - Budget impact analysis and reporting
 - Vendor performance and comparison tools
- ##### Admin Interfaces:
- System configuration and rule management
 - Vendor master data management
 - Budget and cost center administration
 - Reporting and analytics dashboard

5. Integration Requirements

5.1 External System Integrations

System	Integration Type	Purpose	Frequency
ERP System	REST API	Budget data and financial posting	Real-time
Accounting System	REST API	Invoice processing and payments	Daily batch
Vendor Portal	Web Services	Catalog updates and PO transmission	Real-time
Asset Management	File Transfer	Asset registration for capital purchases	Daily
Contract Management	REST API	Contract terms and compliance checking	Real-time

6. Reporting and Analytics

6.1 Standard Reports

Executive Reports:

- Organizational spending dashboard
 - Budget variance analysis
 - Vendor performance scorecards
 - Procurement cycle time metrics
 - Cost savings analysis
- ##### Operational Reports:
- Pending approvals workqueue
 - Department spending analysis
 - Vendor compliance reports
 - Purchase order tracking
 - Budget utilization reports
- ##### Compliance Reports:
- Audit trail reports
 - Policy compliance analysis
 - Approval matrix effectiveness
 - Vendor risk assessment
 - Contract compliance tracking

7. Implementation Plan

7.1 Development Phases

Phase	Duration	Key Deliverables	Success Criteria
Phase 1: Foundation	3 weeks	Application setup, data model, user management	Basic requisition creation working
Phase 2: Core Workflow	4 weeks	Approval workflows, budget validation	End-to-end approval process functional
Phase 3: Vendor Management	3 weeks	Vendor master data, catalog integration	Complete vendor management operational
Phase 4: Advanced Features	3 weeks	PO generation, reporting, analytics	Full procurement cycle automated
Phase 5: Integration & Testing	2 weeks	External integrations, testing, deployment	Production-ready system deployed

7.2 Risk Mitigation

- Comprehensive user training program
- Phased rollout by department
- Parallel processing during transition period
- 24/7 support during initial deployment
- Regular stakeholder communication and feedback

Document Status: This requirements document provides the comprehensive foundation for developing the Purchase Requisition & Approval System on the Appian platform. All requirements must be validated with stakeholders and integrated with existing financial systems before implementation.

End of Document