# ERP / Inventory Management System — Business Scenario

**Company:** **PineCone Pro Supplies, LLC**  
**Industry:** B2B/B2C Wholesale & Retail — Professional woodworking, finishing, and shop safety supplies  
**Headquarters:** Greensboro, North Carolina (primary DC)  
**Warehouses:** Greensboro, NC (DC-01), Charlotte, NC (XDock-CLT), Reno, NV (3PL)  
**Sales Channels:** Web storefront, B2B portal, Amazon (FBM/FBA), in-store POS (Greensboro showroom)  
**Fiscal Calendar:** Monthly; sales tax nexus in NC (county-level rates), expanding to VA/SC within 12 months

## 1) Executive Summary

PineCone Pro Supplies (PCS) has grown from a local distributor to a multi-channel seller with ~12,000 active SKUs, seasonal kits, and vendor drop-ship programs. Rapid growth exposed gaps across purchasing, inventory accuracy, order orchestration, tax compliance, and returns. The goal is to implement a modular **ERP/IMS** that unifies product data, inventory control, order management, purchasing, warehouse operations, shipping, accounting integration, and analytics.

\*\*Primary outcomes\*\*

* 98%+ inventory accuracy (cycle counts + RF scanning)
* Sub-24h order SLA for 95% of orders (weekday)
* Automated purchasing (reorder points, EOQ, vendor lead-time)
* Lot/expiry tracking for finishing chemicals; serial tracking for high-value tools
* Unified financials via accounting integration and tax compliance reporting
* Single source of truth for product data and pricing

## 2) Business Context & Pain Points

* **Stockouts & Inaccurate ATP:** Manual adjustments and paper pick lists cause oversells and delayed shipments.
* **Fragmented Systems:** Web store, 3rd-party WMS, and spreadsheets don’t sync reliably.
* **Purchasing Guesswork:** No unified view of vendor lead times, MOQs, and historical demand.
* **Complex Catalog:** Kits/bundles, unit conversions (quart/gal/5-gal), hazardous shipping rules.
* **Returns Handling (RMA):** No standard workflow or disposition codes (restock/refurbish/scrap).
* **Compliance:** County-level sales tax (NC), hazmat shipping documentation, audit trails.

## 3) Scope (MVP → Phase 2)

\*\*In-Scope (MVP)\*\*

* Product Information Management (PIM)
* Inventory & Warehouse (bin/zone, RF picking)
* Orders (B2C/B2B), payments, fraud checks
* Purchasing, Vendor management, ASN receiving
* Shipping & Rate shopping, hazmat rules
* Returns/RMA workflow
* Tax calculation & reporting (US w/ NC focus)
* Basic Accounting integration (GL/AP/AR sync)
* Operational Analytics & Alerts
* **Phase 2**
* Demand forecasting, EOQ optimization
* Promo engine & contract pricing (B2B)
* Light manufacturing/kitting with BOM versioning
* 3PL bidirectional integration
* Customer service console with SLA timers
* EDI with large vendors
* **Out-of-Scope (initially)**
* Full manufacturing MRP/APS
* HR/Payroll
* Field service

## 4) Personas & Roles (RBAC)

* **Owner/GM (Olivia):** P&L, approvals, audit.
* **Ops Manager (Marcus):** Warehouse KPIs, slotting, carrier performance.
* **Purchasing Lead (Dina):** Vendor scorecards, PO planning.
* **Warehouse Associates (RF):** Receiving, putaway, pick/pack/ship, cycle count.
* **CSR (Ben):** Order edits, RMAs, customer comms.
* **E-Commerce Manager (Tracy):** Catalog, pricing, promotions, channel sync.
* **Accountant (Priya):** Reconciliation, tax filings, journal exports.
* **IT Admin (Kong):** Users, roles, environments, deployments, observability.
* **Role Matrix (excerpt)**

| Module | Viewer | Editor | Approver | Admin |
| --- | --- | --- | --- | --- |
| Products | CSR, Ops | E-Com | GM | IT |
| Inventory | CSR | Ops | Ops Mgr | IT |
| Purchasing/PO | CSR | Purchasing | GM | IT |
| Orders/RMA | CSR | CSR/Ops | Ops Mgr | IT |
| Finance Export | Accountant | Accountant | GM | IT |