

{ERP}

The Custom ERP Developer

Design, Build & Deliver Production-Grade ERP Systems
Using Claude Code · FastAPI · PostgreSQL · MCP · Spec-Driven Development

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BOOK CHAPTERS — 11 CHAPTERS

Ch 01 Why Custom ERP Beats Off-the-Shelf Build vs buy · ERP module map · scoping a client system · pricing an ERP build	Ch 02 Agent-Assisted Development Setup CLAUDE.md for ERP repos · Plan Mode · permissions · context engineering · PRDs
Ch 03 ERP Domain Modelling Chart of accounts · double-entry ledger · stock movements · ERD · Alembic migrations	Ch 04 FastAPI Backend Architecture Async SQLAlchemy 2.0 · Pydantic v2 · repository & service layers · pytest from day one
Ch 05 Identity, RBAC & Multi-Tenancy JWT auth · roles and permissions · row-level tenancy · audit logging	Ch 06 Inventory & Procurement Products and variants · warehouses · PO → GRN → stock ledger · reorder points
Ch 07 Sales, Invoicing & Accounting Quotations · sales orders · GST/VAT invoicing · GL postings · trial balance and P&L;	Ch 08 HR, Payroll & Reporting Employees · attendance and leave · payroll runs · aggregate reports · Excel export
Ch 09 The ERP Dashboard Next.js + TypeScript · data tables and forms · role-aware nav · reviewing agent-written UI	Ch 10 The AI Layer — MCP & RAG Custom MCP server for your ERP · RAG over company docs with Qdrant · English + Urdu
Ch 11 Deploy, Hand Over & Sell (Capstone) Security review · Docker · GitHub Actions · client handover · licensing and AMC pricing	

TECH STACK & TOOLS

Claude Code	FastAPI	PostgreSQL	SQLAlchemy 2.0	Alembic	Pydantic v2
MCP Protocol	Qdrant	Next.js	TypeScript	Docker	GitHub Actions

WHAT YOU WILL BUILD & LEARN

◆ Multi-Tenant ERP Serve multiple client companies from a single deployment without data leaks	◆ Ledger That Balances Double-entry GL postings with trial balance and P&L; driven by business events
◆ Agent-Built Frontend Direct Claude Code to write the Next.js dashboard, then review what it produces	◆ Your Own MCP Server Expose the ERP as tools so it can be queried in plain English or Urdu
◆ Client-Ready Delivery Docker, CI/CD, security review, handover docs, and AMC contracts	◆ Capstone Project Ship a full ERP: inventory, sales, accounting, HR and an embedded AI assistant

