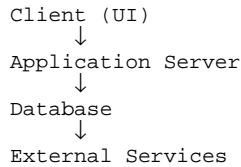


System Architecture

The Inventory Management System (IMS) follows a layered architecture where all business logic is handled by a centralized application server.



User Interface

- Role-based access (Manager, Warehouse Staff, Supplier)
- Product management, stock tracking, reporting

Application Server

- Inventory control and reorder detection
- Manager approval workflow for purchase orders
- Role-based access control
- Report generation and scheduling
- Integration with external services

Database

- Stores products, suppliers, users, and orders
- Tracks approval status and inventory history

External Services

- Email notifications (alerts, scheduled reports)
- Payment gateway
- Supplier portal integration

Key Design Decisions

- Centralized business logic
- Approval-based reorder process

- Scheduled report automation
- Scalable and maintainable structure