

Inventra System Sitemap

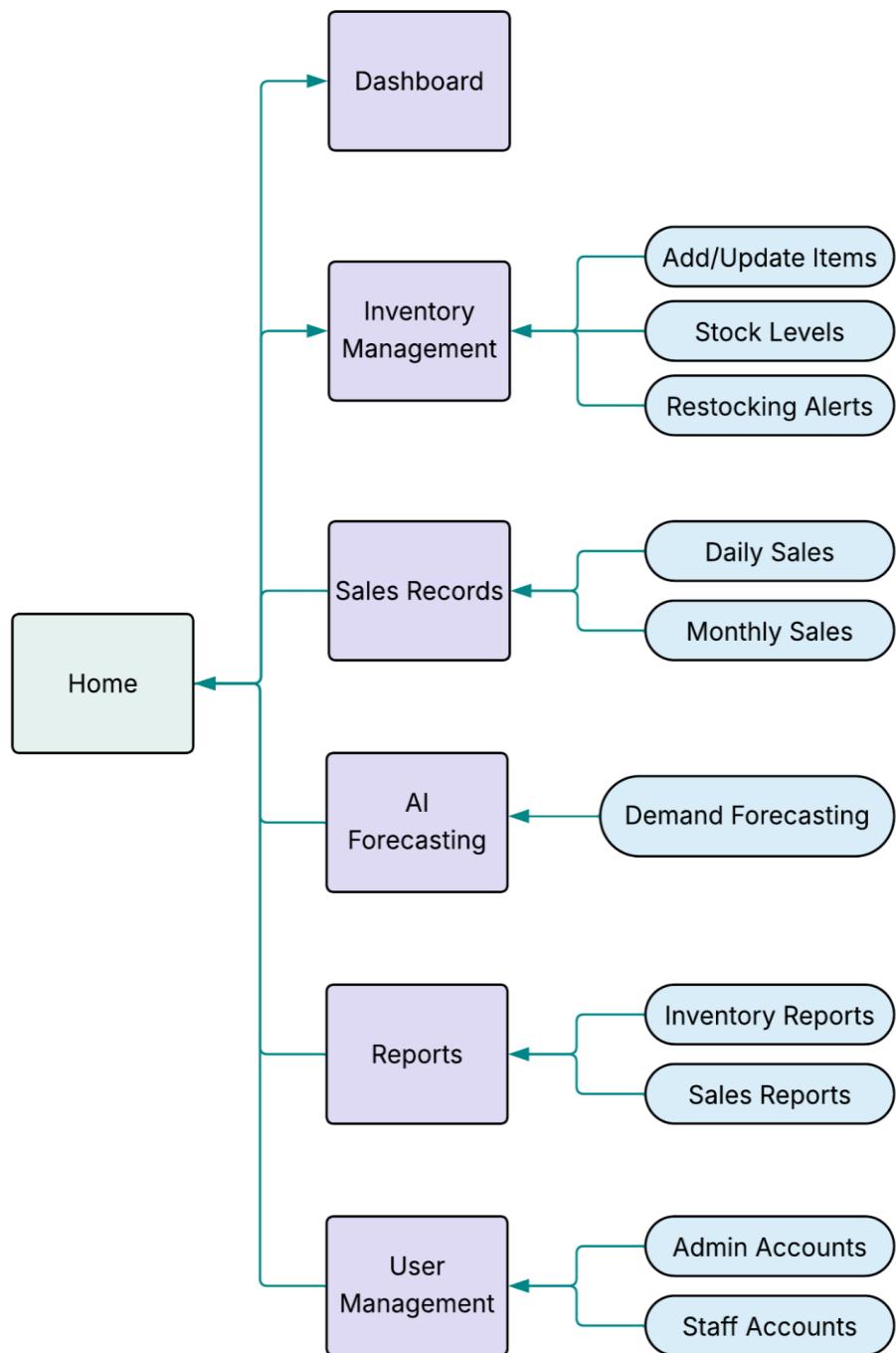


Fig 1: Inventra System Sitemap Diagram

The following sitemap documentation outlines the structural design and navigation flow of Inventra: A Web-Based Inventory Management System with AI-Driven Time-Series Demand Forecasting for Café Pèdro.

1. Home

- Purpose: Serves as the entry point to the system.
- Functions:
 - Provides secure login for Admin and Staff accounts.
 - Directs authenticated users to the Dashboard.
- Relevance: Ensures role-based access and smooth navigation to system modules.

2. Dashboard

- Purpose: Offers an overview of the system's most important data at a glance.
- Functions:
 - Displays a summary of stock levels, low-stock alerts, and recent sales performance.
 - Highlights urgent tasks (e.g., restocking requirements).
- Relevance: Saves time by consolidating critical business information in one screen.

3. Inventory Management

- Purpose: Central module for managing Café Pèdro's stock of ingredients and products.
- Subsections:
 - Add/Update Items → Allows Admin and Staff to register new products (e.g., coffee beans, pastries) or update existing details (e.g., price, supplier, expiration).
 - Stock Levels → Displays current quantities of all products in real time.
 - Restocking Alerts → Automatically flags items falling below a set threshold.
- Relevance: Directly addresses Café Pèdro's problem of stock shortages and overstocking.

4. Sales Records

- Purpose: Maintains accurate records of sales transactions to support business tracking.
- Subsections:
 - Daily Sales → Logs and summarizes sales for each day, useful for cash flow tracking.
 - Monthly Sales → Aggregates sales data for longer-term business analysis.
- Relevance: Provides the historical data needed for AI demand forecasting and financial reporting.

5. AI Forecasting

- Purpose: Uses AI-driven time-series analysis to predict future demand.
- Subsections:
 - Demand Forecasting → Analyzes past sales trends to forecast product demand in upcoming weeks or seasons.
- Relevance: Core innovation of the system — enables Café Pèdro to restock intelligently, reduce waste, and prevent lost sales due to shortages.

6. Reports

- Purpose: Generates structured documents to support decision-making.
- Subsections:
 - Inventory Reports → Summarizes stock levels, restocking history, and product movement.
 - Sales Reports → Summarizes sales performance (daily/monthly), highlighting top-performing products.
- Relevance: Helps management evaluate business health and make evidence-based decisions.

7. User Management

- Purpose: Manages access roles and permissions for system users.
- Subsections:
 - Admin Accounts → Full access to all modules, forecasting, and reports.
 - Staff Accounts → Restricted access (e.g., can record sales and update inventory but cannot manage forecasting or generate all reports).
- Relevance: Provides accountability and ensures data security by controlling who can access sensitive modules.