

INVEN-TRACK

Track Smarter, Restock Faster

Team Members

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PROBLEM STATEMENT

To predict demand, optimize stock levels, and reduce overstock or stock outs for efficient retail operations.

- Many small businesses lack **proper tools** to manage stock.
- **Manual tracking** leads to overstocking or shortages.
- **Inventory loss** due to poor visibility.

SOLUTION

INVEN-TRACK provides an intelligent, AI-powered solution to streamline inventory management:

-  **Automated Stock Monitoring**
Uses AI models to detect and alert when items are about to go out of stock.
-  **Real-Time Inventory Reports**
Generate detailed reports to track inventory trends and stock status.
-  **Smart Stock Optimization**
Prevent both overstocking and understocking with predictive restocking alerts.
-  **Demand Forecasting**
AI-based demand prediction helps businesses prepare for future needs in advance.

PRODUCT USP

What sets INVEN-TRACK apart:

- 1. AI-Driven Intelligence**

Unlike traditional tools, INVEN-TRACK uses machine learning to predict demand, detect low stock, and automate decision-making.

- 2. Real-Time Monitoring & Alerts**

Get instant notifications when stock is low or overstocked—no manual checking required.

- 3. Smart Restocking Recommendations**

Provides predictive restocking suggestions based on trends, helping avoid losses and improve planning.

- 4. Easy Integration & Scalable**

Designed to be plug-and-play for small businesses and scalable for growing companies.

- 5. User-Friendly Dashboard**

Intuitive interface with actionable insights—no technical knowledge needed to operate.

USER FLOW

Here's how users interact with INVEN-TRACK to manage their inventory efficiently:

- 1. Login / Sign-Up**

Users create an account or log in securely to access their inventory dashboard.

- 2. Add or Import Inventory**

Upload inventory data manually or through Excel/CSV files or API integrations with POS systems.

- 3. AI Starts Monitoring Inventory**

AI automatically begins tracking stock levels in real-time, analyzing usage patterns and trends.

- 4. Dashboard Overview**

Users land on a dashboard

- 5. Receive Alerts & Insights**

Get smart alerts and notifications about low-stock, overstock, or anomalies.

7. View Reports & Recommendations

Access detailed reports and get AI-driven restocking suggestions based on demand forecasts.

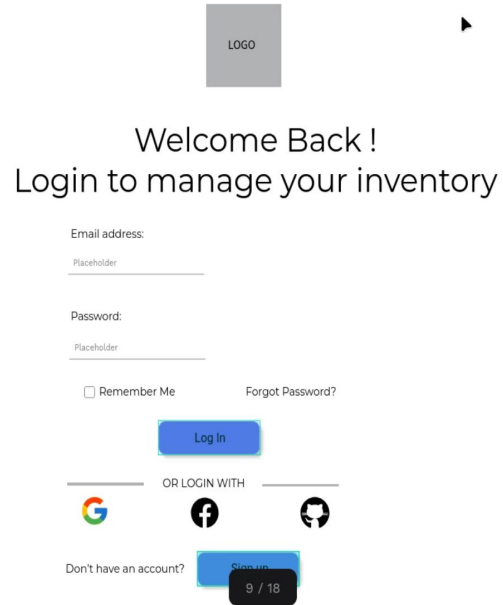
8. Take Action

Users can:

- Place restocking orders
- Adjust stock levels
- Download reports for business decisions

DESIGN

LOGIN PAGE



LOGO

Welcome Back !
Login to manage your inventory




Email address:
Placeholder

Password:
Placeholder

☐ Remember Me [Forgot Password?](#)

[Log In](#)

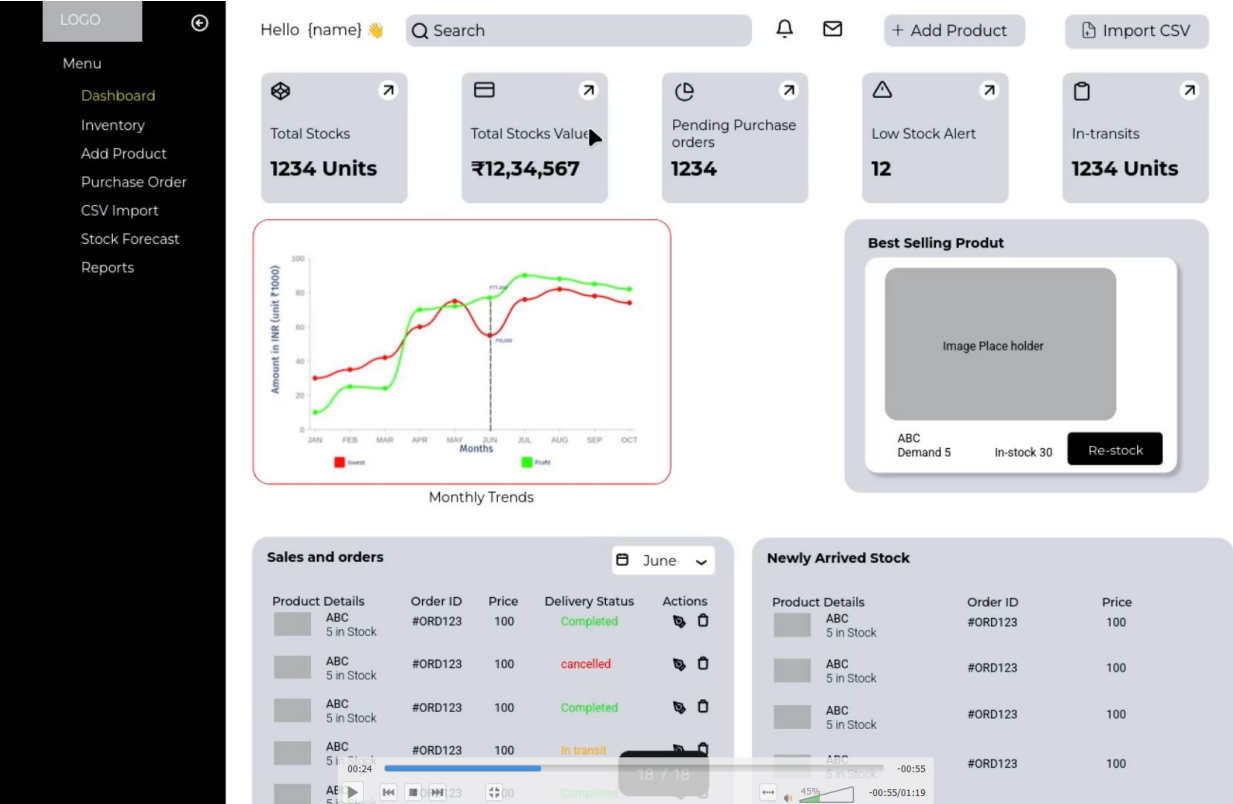
OR LOGIN WITH

Don't have an account? [Sign up](#)

9 / 18

DASHBOARD



How INVENT-TRACK Works Internally (MERN Stack)

Frontend (React.js)

1. Built with React, the UI allows users to:
 - Sign up / log in
 - Upload or import inventory
 - View stock levels and alerts
 - See dashboards and reports
2. Uses Axios or Fetch API to send requests to the backend (Node.js/Express).

Backend (Node.js + Express.js)

1. Express handles all API routes (RESTful):
 - `/api/login`, `/api/inventory`, `/api/alerts`, etc.
2. Node.js handles server-side logic like:
 - Authentication
 - Validating inventory uploads

3. Database (MongoDB)

Stores:

- User info (name, login credentials)
- Inventory data (stock quantity, items, categories)
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TECH STACK USED

Frontend(Client-Side)-React.js

- **React.js**: For building dynamic and responsive user interfaces.
- **Axios**: To make HTTP request to backend.
- **Tailwind CSS** : For styling and responsiveness
- **React Router**: For client-side routing and navigation

Backend(Server-Side)-Node.js + Express.js

- **Node.js**: JavaScript runtime to run the backend logic.
- **Express.js**: Lightweight framework for handling APIs and routing
- **Mongoose**: ORM for interacting with MongoDB easily.

Database – MongoDB

- **MongoDB Atlas:** NoSQL database for storing inventory, users, alerts, and AI recommendations.
- Document based structure helps manage flexible data formats like inventory items with different fields

Authentication & Security

- **JWT (JSON Web Tokens):** For Secure User Authentication.
- **bcrypt.js:** To hash passwords.
- **Helmet.js:** For API security and environment configuration

AI Logic

- Node.js logic: To run ML-Based or heuristic algorithms for:
- Demand Forecasting
- Restocking recommendations
- Anomaly detection

KEY COMPETITORS

1. Zoho inventory

- Cloud-based solution for inventory and order management.
- **Limitation:** Often too feature heavy for small business and may require training.

2. inFlow inventory

- Focuses on product tracking and order management.
- **Limitation:** Manual stock entry; lacks AI-driven restocking suggestions.

Market Opportunity

Global Market Size

- Inventory management software market

 **\$3 Billion in 2023**

 Projected to reach **\$5.7+ Billion by 2030**

 CAGR: **~9.8%**

Target Segments



Small & Medium Businesses



Retailers & E-commerce



Distributors & Warehouses



Institutions

Why Now?

- Manual tools (Excel) are outdated.
- AI is revolutionizing inventory optimization
- Post-COVID shift to digital/cloud solutions.

INVEN-TRACK is entering a fast-growing market with increasing demand for AI-powered, easy-to-use inventory systems.

Go-To-Market Plan

 **Target:** SMBs, Retailers, Warehouses

 **Launch:** Beta testing + free trial for early adopters

 **Marketing:**

- Digital Ads(Google,LinkedIn)
- Content & Email Marketing
- Product listing on startup platforms

 **Sales**

- Freemium model
- Cold outreach & live demos

 **Retention**

- 24/7 support
- In-app onboarding
- Referral Program

DEMO

