

# INVENTORY MANAGEMENT SYSTEM

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# Abstract

- This project presents an inventory management system developed using C language. It enables stock handling operations such as adding new items, updating available stock, and generating bills for sold product. Arrays and loops are used for data handling ensures data remains saved permanently. The system reduces manual effort and improves accuracy in small-scale inventory operations



# Introduction

**Inventory Management** is essential for maintaining product records and stock details in business . Manual handling leads to errors, confusion and inefficiency . To overcome this , we developed an inventory management system in C .The program helps in adding items,updating stock and billing.



# Application



## Reducing storage costs

- Helps avoid unnecessary warehousing and carrying costs



## Maintaining optimal stock levels

- Ensures products are neither over-stocked nor under-stocked



## Preventing stockouts

- Ensures essential items available whenever needed



## Improving order accuracy

- Tracks items properly so customers receive the correct products



## Better financial management

- Tracks stock value, helps in budgeting and forecasting



## Efficient production planning

- Provides material availability for smooth manufacturing

# Existing Methodology

## Manual record keeping

Stock details maintained in books or spread sheets

## Periodic stock counting

Regular physical counting to match actual stock

## Fixed reorder level system

New stock ordered when it reaches minimum level

## Manual billing and stock update

Stock adjusted manually after sales/purchases

## physical inspection

Items checked for quality and expiry

# Drawbacks of Existing Methodology

- Time-consuming
- Human errors
- No real-time tracking
- No low-stock alerts
- Missing/duplicate entries
- Slow decision-making



# Proposed Methodology

- The proposed system automates inventory handling using C language
- **Process:**
- Add items with name, price & quantity
- Update stock when new quantity is added
- Bill generation for sold products
- File handling for permanent storage





# Advantages of Proposed Methodology



- Accurate stock control

Reduces errors in inventory

- Time saving

Speeds up tracking and billing

- Better planning

Prevents expiry and overstock

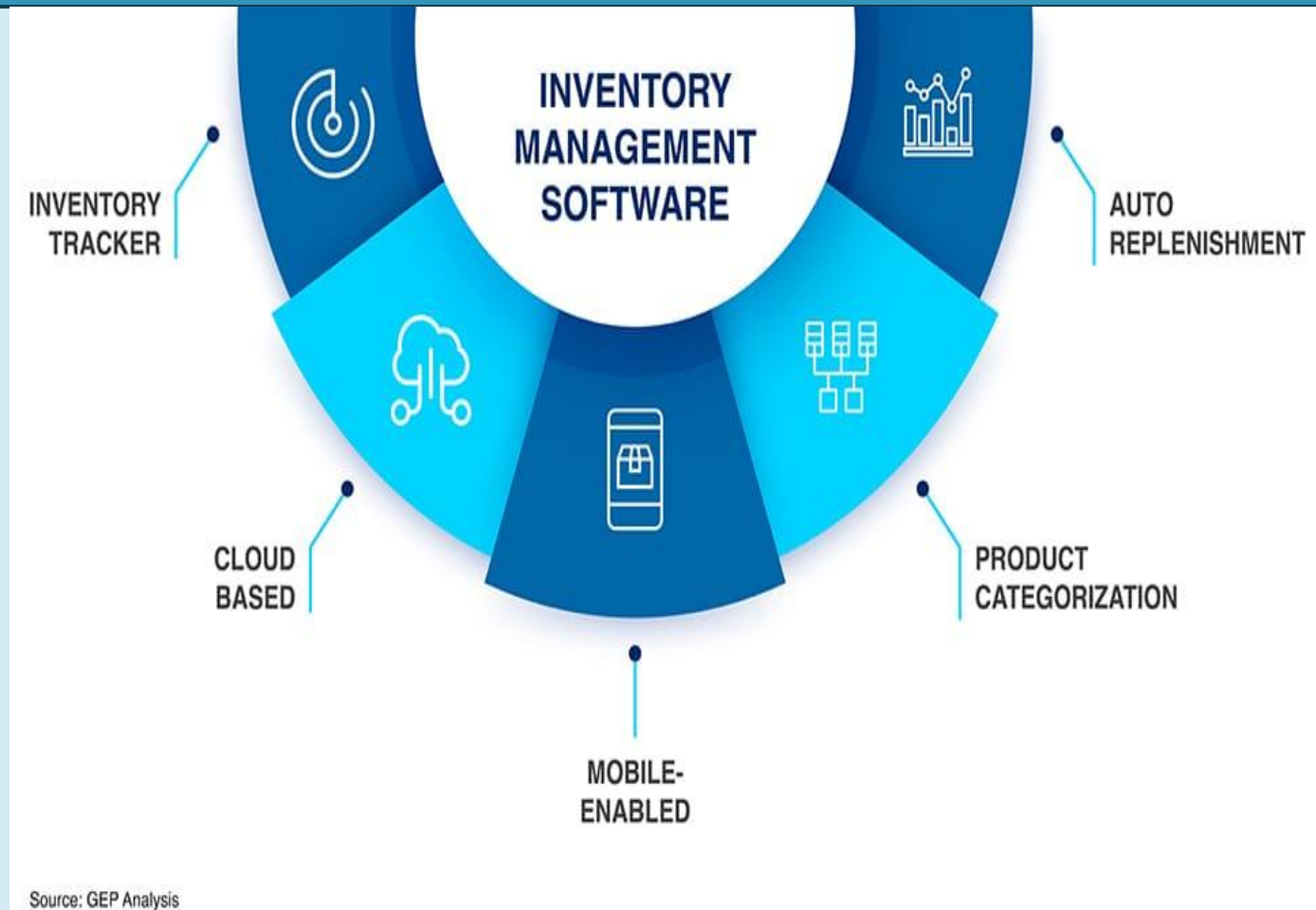
- Reduced wastage

Staff work more efficiently

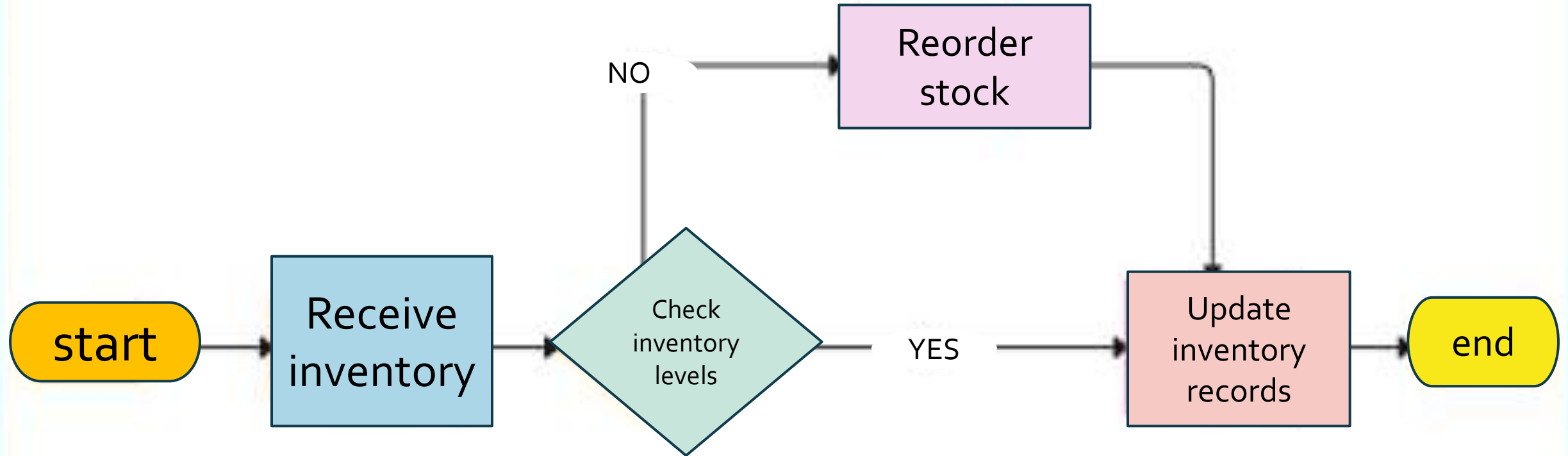
- Data safely stored in files

# Architecture of Proposed Methodology

The proposed system uses a central inventory management software connected with modules like inventory tracking ,auto replenishment ,product categorization,mobile access and cloud storage.This ensures easy access,real time updates, and smooth management of stock with improved accuracy



# Flow chart of inventory management

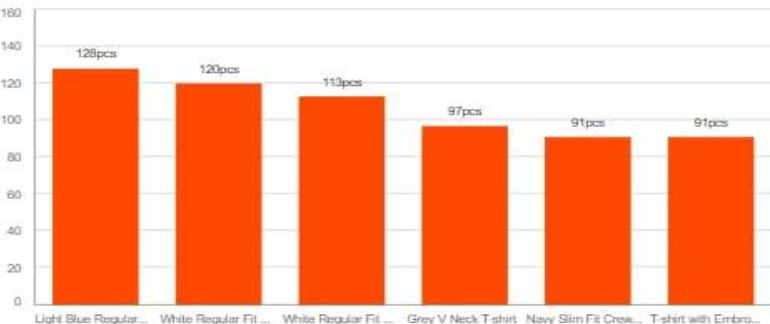


# Results / Screenshots

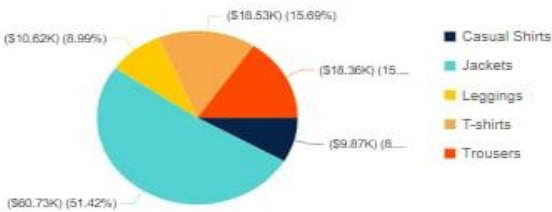
Inventory Turnover Ratio  
0.84 %

Gross Margin ROI  
\$1.7620

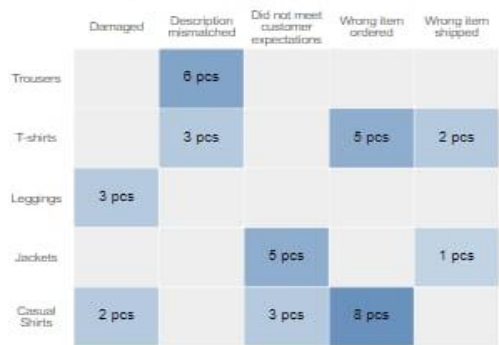
Top Selling Items



Average Inventory by Product category



Returned Items by Product Category



Stock Availability

Product / Item	Men			Women			Grand Total		
	Units Sold	On Hand	To Come	Units Sold	On Hand	To Come	Units Sold	On Hand	To Come
Trousers	300 pcs	300 pcs	50 pcs	245 pcs	245 pcs		545 pcs	545 pcs	50 pcs
T-shirts	831 pcs	425 pcs	188 pcs	601 pcs	544 pcs	90 pcs	1432 pcs	969 pcs	276 pcs
Leggings				341 pcs	313 pcs	40 pcs	341 pcs	313 pcs	40 pcs
Jackets	297 pcs	257 pcs	30 pcs	220 pcs	220 pcs		517 pcs	477 pcs	30 pcs
Casual Shirts	669 pcs	419 pcs	124 pcs				669 pcs	419 pcs	124 pcs

Growcer—Online Grocery Store!

Select Location

English

\$Currency

Categories

Hi Alex

1

Seller Dashboard

Seller

Quick Filters

Dashboard

Shop

Manage Shop

Shop Settings

View Shop

Products

Inventory Update

Import Export

Cod Instructions

Sales

Sales

Cancellation Requests

Order Return Requests

Settings

Options

Profile

My Account

Messages

My Credits

Change Password

Change Email

Change Phone Number

Products Inventory Report

Explore

Keyword

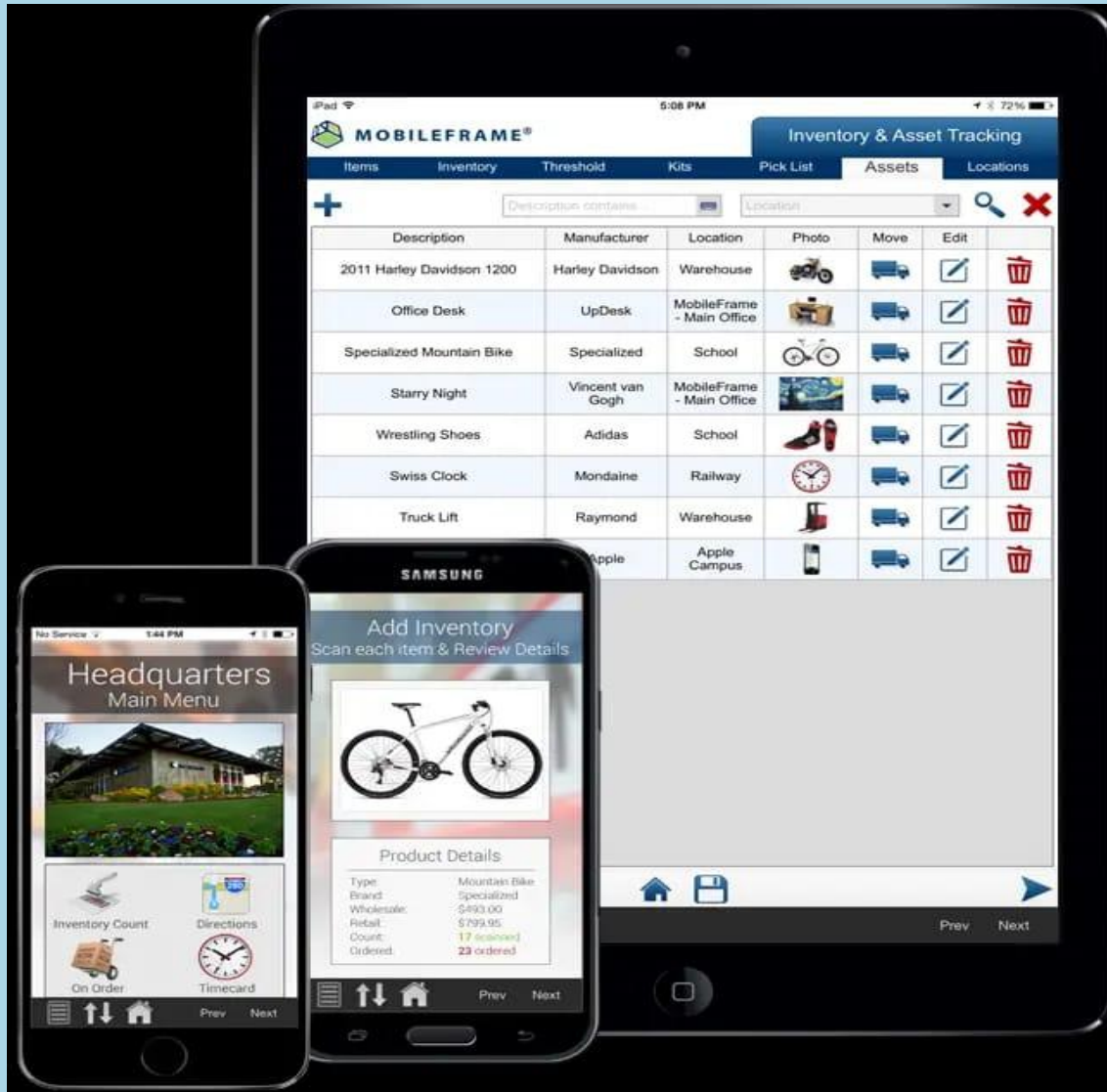
Search

Clear

Sr No.	Product	Stock Quantity
1	100% Apple Juice Custom Title: 100% Apple Juice - 500 ML Brand: Tropicana	1000
2	100% Apple Juice Custom Title: 100% Apple Juice - 1000 ML Brand: Tropicana	139
3	100% Mixed Fruit Juice Custom Title: 100% Mixed Fruit Juice Brand: Tropicana	2400
4	100% Orange Juice Custom Title: 100% Orange Juice Brand: Tropicana	1350
5	Activated Charcoal Bodywash Custom Title: Activated Charcoal Bodywash Brand: Beardo	2400
6	Active Baby Large - 50 Diaper Pants Custom Title: Active Baby Large - 50 Diaper Pants Brand: Pampers	150
7	Active Baby Small (3-8 kg) - 22 Diapers Custom Title: Active Baby Small (3-8 kg) - 22 Diapers Brand: Pampers	3000
8	After Lunch Green Tea Bags Custom Title: After Lunch Green Tea Bags Brand: Lipton	150
9	Almond Hair Oil Custom Title: Almond Hair Oil - 1000 ML Brand: Dabur	150



# Results/Screenshots



## Inventory Management Dashboard

This slide covers the inventory management system wherein vendors, total categories and products, sales are calculated.

66  
Total Vendors



47  
Total Categories



225  
Total Products



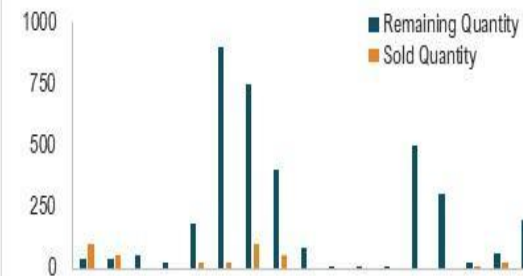
232  
Total Sales



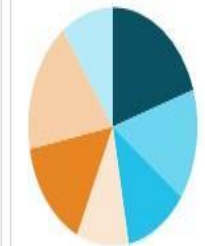
WELCOME, Inventory

\$ My Salary

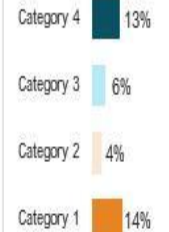
### Sales Report



### Product Details



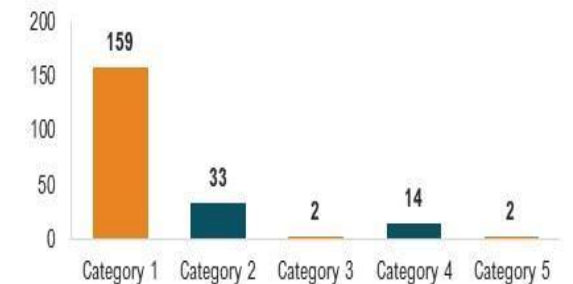
### Category Wise Sales (%)



### Purchase Details

	Vendor	Category	Product	Quantity	Purchase Rate	Sales Rate
1	Vendor 1	7 <sup>th</sup> ENG MED	Product 1	3	44	46
2	Vendor 2	1 <sup>st</sup> ENG MED	Product 2	9	44	46
3	Vendor 3	1 <sup>st</sup> ENG MED	Product 3	8	44	46
4	Vendor 4	1 <sup>st</sup> ENG MED	Product 4	1	29	31
5	Vendor 5	2 <sup>nd</sup> ENG MED	Product 5	3	31	33

### Category Wise Quotation



This graph/chart is linked to excel, and changes automatically based on data. Just left click on it and select "Edit Data".

# Conclusion

- The Inventory management system simplifies item handling and billing operations using c language. By arrays, loops and file handling, the system ensures accurate stock management and reduces human errors . It is a simple effective solution for small shops and inventories





A photograph of a large warehouse interior. The aisle is lined with high industrial shelving units filled with numerous boxes and pallets. The floor is polished and reflects the overhead lights. A forklift is visible in the distance at the end of the aisle. The text "Thank you" is overlaid in a large, white, cursive font with a blue outline.

*Thank you*

Any questions