



Dynamic Data Visualization For Profit And Loss

Tejas Deshmukh(22107015)
Asma Rajguru(23207005)
Priyanka Barman(22107004)
Sakshi Kadam(22107032)

Project Guide
Prof.Poonam Pangarkar

Outline

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Introduction

- Our project is a Python based application which is designed to meet the unique needs of all retail users, providing an accessible and specialized solution.
- Combination of Expense Tracker and Inventory Manager application.
- The application aims to empower retail users in making informed financial decisions within their specific retail context.
- It also help to see the status of each item in the inventory.
- **Motivation:** Spotted problems with existing tools. Saw retailers struggle with tracking expenses and managing inventory.

Introduction

Objectives:

The Objective is to make a application that helps stores track their spending better and manage their products easily and making it simple for any type of store to use.

- To manage customer transactions, supplier transactions, and checking inventory status with the help of GUI.
- To empower retailers with the strategic decision-making capability with the help of visualization of profit and loss.
- Shows current inventory status after each transaction.
- Profit and Loss analysis with Graph from python library matplotlib.
- Add new items to inventory based on their status.

Literature Survey of the existing system

- "Online Income and Expense Tracker." [1] offering a user-friendly experience with features such as category selection, photo capture, location tagging, and income input but Lacks inventory management functionality.
- "Expense Tracker: A Smart Approach to Track Everyday Expense."(2020). [2]Only works on some devices, so users with other devices may find it less convenient, limiting its accessibility.
- "Inventory management for retail companies: A literature review and current trends." [3] A literature review on Small and Medium-sized Enterprises (SMEs) in the retail sector from 2015 to 2019. The findings reveal a trend of SMEs relying on basic tools like Excel or manual inventories, instead of investing in more sophisticated systems

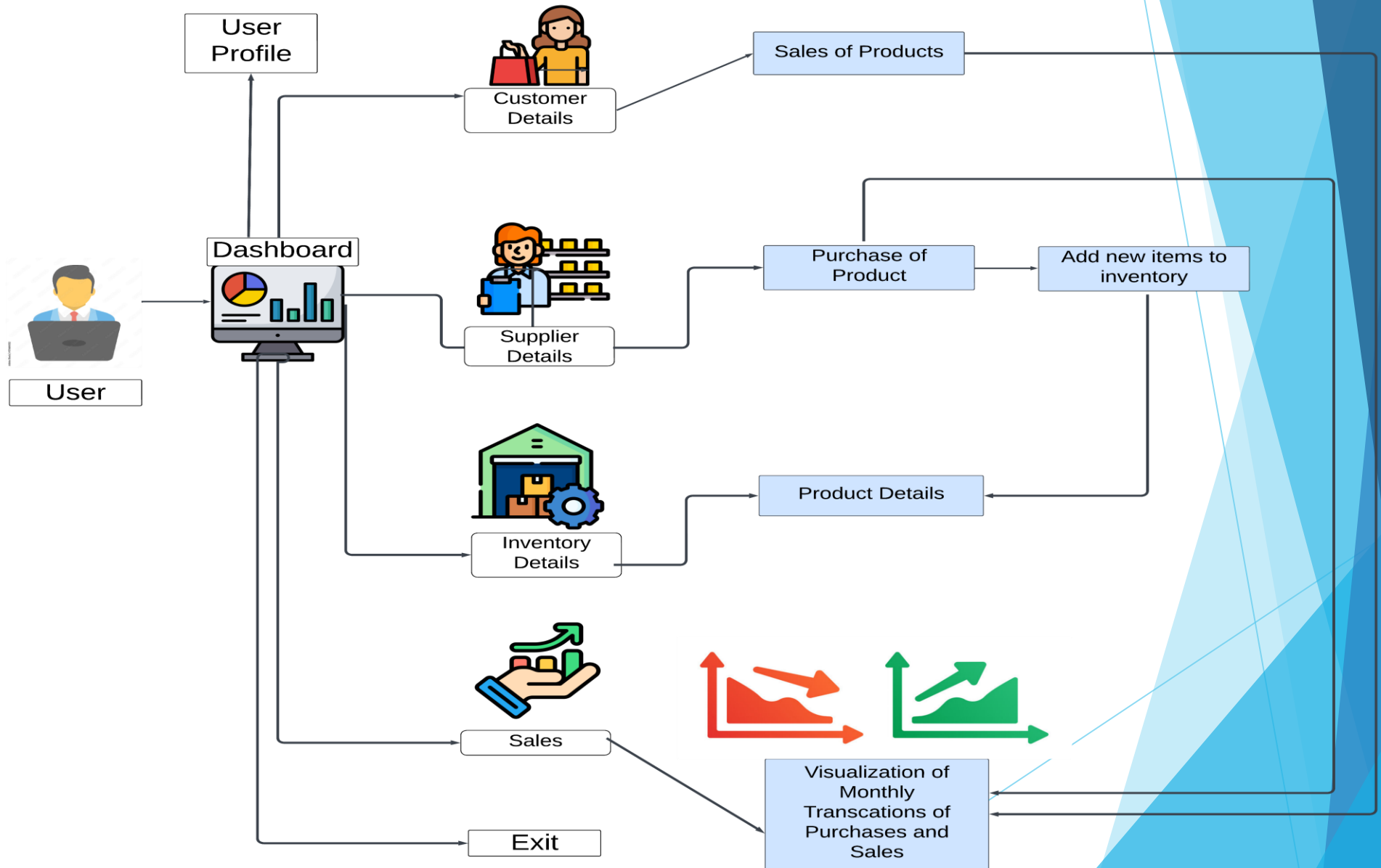
Limitations of existing systems

- The existing system is not user friendly because data is not maintained efficiently.
- Existing system does not use the smart concept which are used now a days. In existing, we need to maintain the Excel sheets, CSV etc. files for the user daily and monthly expenses.
- In existing systems, there is no as such complete solution to keep a track of its daily expenditure easily.
- To do so a person as to keep a log in a diary or in a computer, also all the calculations needs to be done by the user which may sometimes results in errors leading to losses.

Problem statement

- In response to the challenge faced by retailers in efficiently monitoring and managing both expenses and inventory concurrently, our project focuses on providing a seamless solution by merging these critical features into a unified application, we aim to empower retailers with a comprehensive and user-friendly tool that simplifies the tracking and assessment of both expenses and inventory status.
- Retailers can find it tough to figure out how well they did financially. Our project is here to help by creating a simple chart showing the profit and loss for the month. This way, retailers can easily see how they're doing and make smarter decisions for their business. This approach helps user for decision-making process for retailers, with a more effective and informed management of their business resources.


System Design



Technologies

- Frontend GUI:
Python 3.11 and 3.12 for Tkinter
- Visualization:
Matplotlib
- Backend:
MySQL workbench 8.0

Implementation

 **RETAIL PRO** [BACK](#)

CUSTOMER DETAILS

Product ID

Product Name

Product quantity

Cust Name

Total Amount


Sale Price


SAVE

CLEAR

| Product ID | Product Name | Product quantity | Customer Name | Total Amount | Sale Price |
|------------|--------------|------------------|---------------|--------------|------------|
| 116 | Bottle | 10 | PB | 3000.00 | 4000.00 |
| 1105 | Book | 5 | priyanka | 200.00 | 250.00 |

Implementation

 RETAIL PRO

 **RETAIL PRO**

BACK

SUPPLIER DETAILS

Sup.Name

Mobile No

Product Id

Product Name

Purchase Price

Quantity

Sales price

Total price

Low stock

GST

SAVE

CLEAR

Search by Product Id.

Search

Implementation

RETAIL PRO

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INVENTORY DETAILS

Inventory Status : 1

| Product Id | Product Name | Stock Quantity |
|------------|-------------------|----------------|
| 1 | Colgate Max Fresh | 10 |

Conclusion

- In conclusion, our project aims to make running a store easier.
- We're fixing common problems like confusing money tracking and tricky inventory management.
- With a simple and friendly tool, we want to help small businesses make better decisions and run smoothly.

References

1. Chandini, S., et al. "Online Income and Expense Tracker." International Research Journal of Engineering and Technology (IRJET) 6.3 (2019): 2395-0056.
2. Gupta, Hrithik, et al. "Expense Tracker: A Smart Approach to Track Everyday Expense." EasyChair Preprint 4809 (2020).
3. Macas, Cinthya Vanessa Muñoz, et al. "Inventory management for retail companies: A literature review and current trends." 2021 Second International Conference on Information Systems and Software Technologies (ICI2ST). IEEE, 2021.

Thank You...!!