

Business Software

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Section 1: Team Detail

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Project Title: Business Software

Section 2: Problem Background

Our Team observed that in our college many places like shops of stationary, groceries, etc. are using traditional methods of keeping track of products sold and purchased which is very inefficient, inaccurate, time-consuming, etc. They are not able to properly track their sales, purchases properly and future goals according to that.

Section 3: Problem Statement

The problem that this project aims to solve is the **manual** and **time-consuming** process of keeping track of inventory, sales, and purchases in a stationery shop.

The traditional pen-and-paper method leads to **inaccuracies**, **inefficiencies**, and errors, making it difficult for the shopkeeper to manage the shop's day-to-day operations effectively. Additionally, the inability to track vendor transactions, product availability, and damages can lead to lost sales, **decreased profits**, and dissatisfied customers.

Section 4: Solution Proposed

This project is about keeping the records of the buy and sell of a stationery shop. The shopkeeper buys stock of items from particular vendors and sells them to people.

How many products are there in the shop right now, which products can go out of stock in days one or two, how many products get damaged or broken, what amount in terms of money got sold today, which vendor got what amount of money for stock purchase, this kinds of information are hard to keep track with pen and paper plus lots of time gets wasted.

The shopkeeper can use this S/W to avoid all those inconveniences. This project has features like stock viewing, product sale, product purchase from vendors, keeping track of sales to customers, etc.

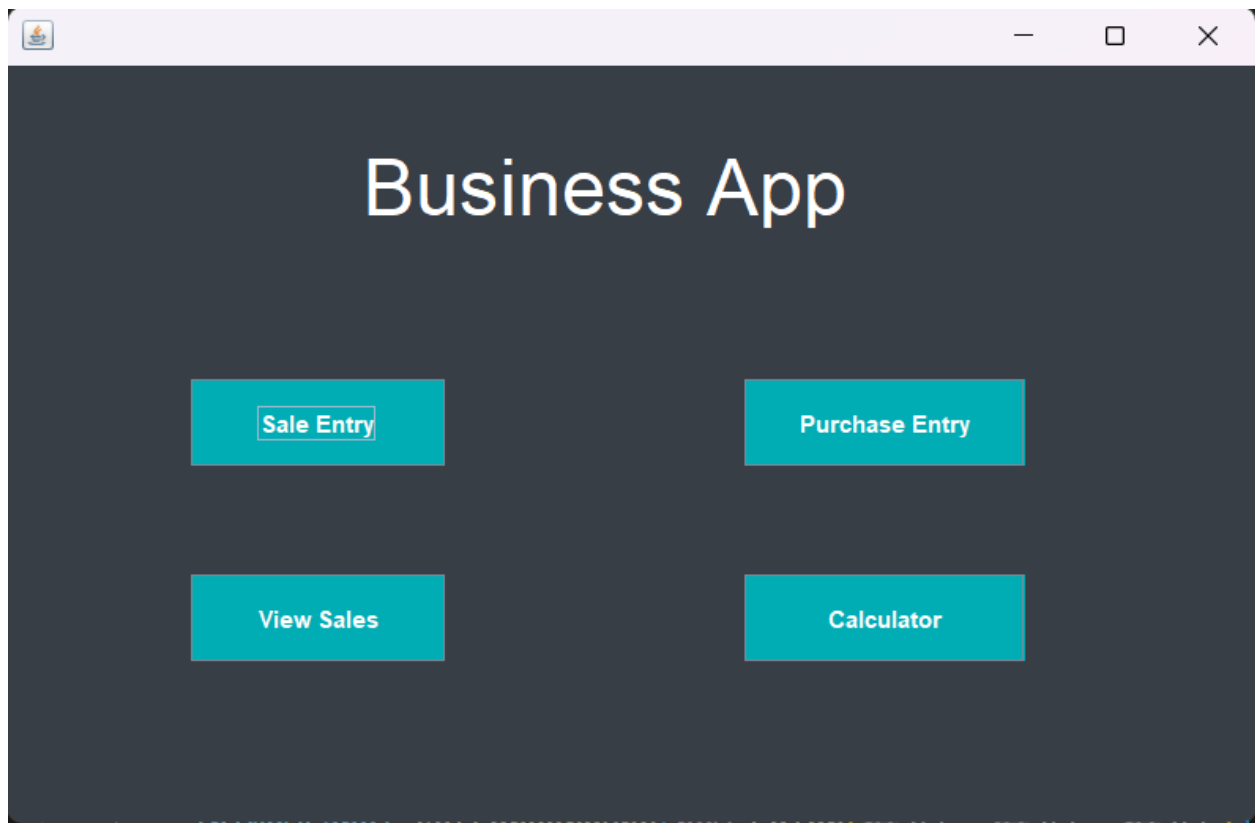
Section 5: Design

The design of the project will involve creating several modules/pages, which are mentioned below:

Product Management: This module/page will allow the shopkeeper to manage the products available in the shop. The module will enable them to add new products.

Sales Management: This module is composed of two pages

- **View Sale:** This module/page will allow the shopkeeper to manage the sales to customers. The module will enable them to track the number of products sold, the total cost of the products sold, and the payment received from the customer.
- **Sale Entry:** This module/page will allow the shopkeeper to enter products sold to customers. This page will create sale entries against the products bought by the customers.



The system's design will involve using Java as the programming language and a Relational Database Management System (RDBMS) such as MySQL to store the data.

The user interface will be designed to be user-friendly, intuitive, and easy to navigate.

Section 6: Implementation

The implementation of the project involved creating the software solution using **Java** programming language, **MySQL** as the database management system, and the **Swing** library to build the graphical user interface.

To create the graphical user interface, we used the Swing library. Swing provides a wide range of components that can be used to build user interfaces, such as buttons, text fields, checkboxes, and dropdown menus.

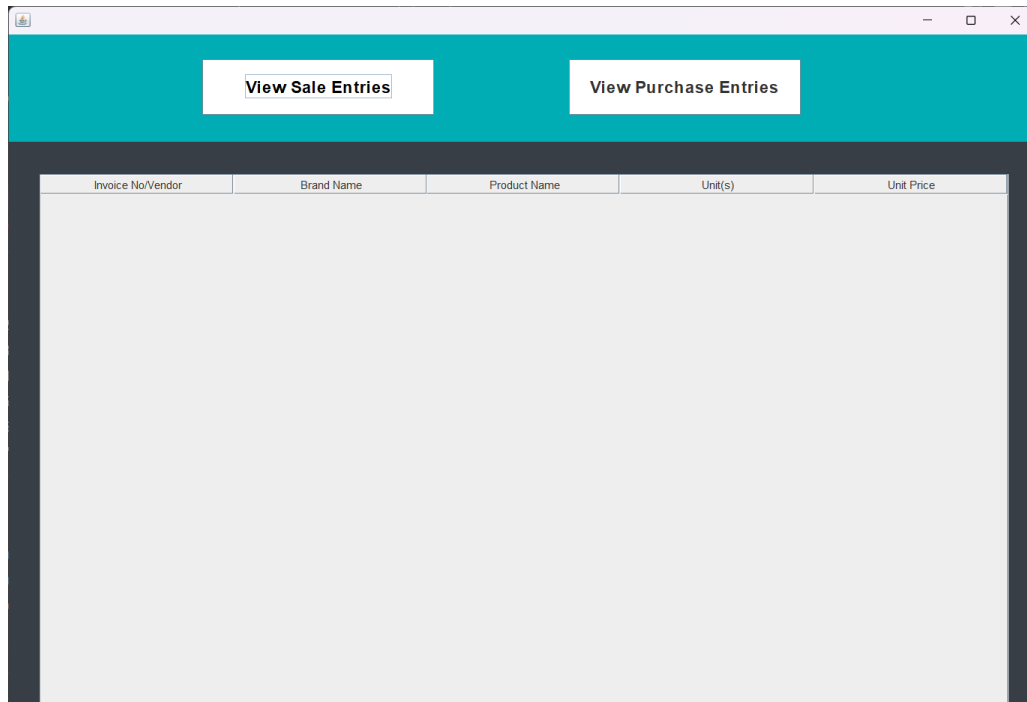
Some of the Swing components used in the project are:

JTable: JTable is a component used to display data in a tabular format. It allows the user to edit the data directly in the table.

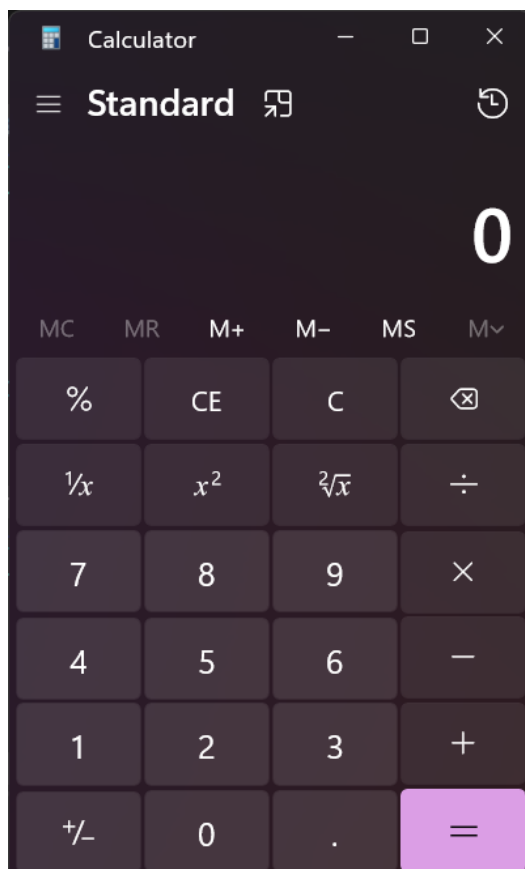
JButton: JButton is a component used to create clickable buttons. It is used to perform an action, such as submitting a form or navigating to another screen.

JTextField: JTextField is a component used to accept input from the user in the form of text.

JLabel: JLabel is a component used to display text or images on the screen.



On clicking Calculator, It opens Default System Calculator.



We customized these components as per the project's requirements, such as adding validation checks to the input fields and displaying data in a specific format. Overall, the Swing library helped us create a user-friendly interface that the shopkeeper can use to manage the shop's operations efficiently.

Section 7: Conclusion

In conclusion, this project aimed to provide a software solution to automate the manual processes involved in managing inventory, sales, and purchases. The project achieved its goal by creating a functional software solution using Java programming language, MySQL as the database management system, and the Swing library to build the graphical user interface.