SUPER MARKET BILLING SYSTEM

A MINI PROJECT REPORT

Submitted by

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BONAFIDE CERTIFICATE

Certified that this project report "**SUPER MARKET BILLING SYSTEM**" is the bonafide work of **"Abishek I(230701009), Adithya J(230701111)"** who carried out the project work under my supervision.

Submitted for the Practical Examination held on ----------

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INTERNAL EXAMINER **EXTERNAL EXAMINER**

ABSTRACT:

The Supermarket Billing Management System is a software application designed to streamline and optimize the billing process in a supermarket environment. The system focuses on automating key operations such as product selection, price calculation, discount application, and receipt generation, thereby reducing human errors, enhancing customer experience, and improving overall efficiency.

Key features include an intuitive user interface for cashiers, real-time inventory updates, customizable discount and tax policies, and support for multiple payment methods. The system also provides robust backend functionalities, such as data management for products, sales reports, and customer billing histories.

Developed using modern programming practices, the system ensures high performance, scalability, and security, making it suitable for supermarkets of varying sizes. By integrating this system, supermarkets can not only improve operational workflows but also gain valuable insights through sales analytics, enabling better decision-making and customer satisfaction.

This project bridges the gap between traditional manual billing systems and advanced digital solutions, making it a vital tool for the modern retail industry.

TABLE OF CONTENTS

Chapter 1

INTRODUCTION

1.1 INTRODUCTION

Introduction to the Supermarket Billing System Mini Project

The Supermarket Billing System is a mini project developed using Java and Database Management Systems (DBMS) to automate and streamline the billing process in a supermarket. This system is designed to replace manual billing, reduce errors, and improve efficiency in handling customer purchases.

The primary objective of this project is to create a user-friendly application that facilitates the following:

Product Management: Storing details about available products such as product ID, name, price, and stock quantity.

Customer Billing: Generating detailed bills for customer purchases, including calculating totals, taxes, and discounts (if applicable).

Database Integration: Using a relational database to securely store and retrieve product and billing data efficiently.

Tools and Technologies:

Programming Language: Java (for the application's logic and user interface).

Database: MySQL/PostgreSQL (to manage product and billing records).

IDE: NetBeans for Java development.

This project is ideal for beginners looking to enhance their programming skills and understanding of DBMS concepts through practical application. It also demonstrates the importance of integrating software and databases for solving real-world problems efficiently.

1.2 OBJECTIVES

Automated Billing Process: Quickly calculates totals, taxes, and discounts, and generates itemized bills to enhance accuracy and efficiency.

Real-Time Inventory Management: Updates stock levels after each transaction, ensuring accurate inventory tracking and preventing stock-out issues.

Database Integration: Utilizes a relational database (e.g., MySQL) to securely store and manage product, inventory, and billing data.

User-Friendly Interface: Simple and intuitive design enabling supermarket staff to perform billing and inventory tasks with ease.

Report Generation: Provides detailed bills for customers and generates sales reports for management insights and decision-making.

1.3 MODULES

Modules for the Supermarket Billing System Mini Project

User Management Module

Handles user authentication (e.g., admin/staff login).

Ensures secure access to system functionalities.

Product Management Module

Allows adding, updating, and deleting product details (e.g., product ID, name, price, stock).

Facilitates product search and inventory tracking.

Billing Module

Automates bill creation by calculating item totals, taxes, and discounts.

Generates and prints detailed customer bills.

Inventory Management Module

Tracks stock levels in real-time.

Updates inventory after every transaction to ensure accuracy.

Database Management Module

Manages data storage and retrieval using a relational database.

Ensures data consistency, integrity, and security.

Report Generation Module

Provides daily sales and inventory reports for management.

CHAPTER 2 SURVEY OF TECHNOLOGIES

2.1 SOFTWARE DESCRIPTION

The Supermarket Billing System is a software application developed to streamline the billing process and manage inventory efficiently. The application integrates key functionalities required in a supermarket setting and ensures seamless interaction between users and the database. Below is the detailed software description:

Purpose

The primary purpose of this system is to automate the manual billing process, reduce errors, and improve operational efficiency. It also facilitates real-time inventory tracking and provides sales reports to support decision-making.

Scope

Small to medium-sized supermarkets.

Scenarios where billing accuracy and inventory management are crucial.

Users with basic computer knowledge can operate the system with ease.

Features

Billing Automation:

Calculates totals, taxes, and discounts automatically.

Generates itemized bills for customers.

Inventory Management:

Real-time updates to product stock after each transaction.

Low-stock alerts to assist in restocking decisions.

Database Integration:

Stores product, billing, and sales data securely in a relational database.

Ensures data consistency and quick retrieval.

User Management:

Role-based access for administrators and staff.

Secure login system to protect sensitive information.

Report Generation:

Daily, weekly, or monthly sales reports.

Inventory status reports for stock monitoring.

Technology Stack

Frontend:

Java Swing/JavaFX for graphical user interface (GUI) development.

Backend:

Java programming language to handle logic and system operations.

Database:

Relational Database Management System (RDBMS) like MySQL or PostgreSQL for data storage.

Development Environment:

Integrated Development Environment (IDE) such as Eclipse, IntelliJ IDEA, or NetBeans.

Database Connectivity:

Java Database Connectivity (JDBC) for seamless interaction between Java and the database.

Advantages

Reduces manual effort and errors in billing and inventory tracking.

Improves customer experience by speeding up checkout processes.

Provides valuable insights through sales and inventory reports.

The Supermarket Billing System is a robust and scalable solution tailored for supermarkets looking to optimize their operations and improve overall efficiency

Chapter 3 REQUIREMENTS AND ANALYSIS

Requirements

1. Functional Requirements:

User Authentication:

Admin and staff login functionality to secure access.

Product Management:

Add, update, delete, and search for product details.

Billing:

Generate itemized bills with calculations for totals, taxes, and discounts.

Provide options for editing and reviewing bills before finalizing.

Inventory Management:

Real-time updates to stock levels after transactions.

Alert for low-stock items.

Reports:

Generate sales and inventory reports.

Maintain a history of transactions for review.

2. Non-Functional Requirements:

Performance:

Quick response times for billing and database queries.

Reliability:

Ensure accurate data entry, storage, and retrieval.

Usability:

Provide an intuitive user interface with clear navigation.

Scalability:

Support expansion to accommodate more products and larger transaction volumes.

Security:

Protect data with user authentication and database encryption.

3. Software Requirements:

Programming Language: Java (for application development).

Database: MySQL or PostgreSQL (for data storage).

Development Tools: Eclipse, IntelliJ IDEA, or NetBeans.

OS Compatibility: Cross-platform support (Windows/Linux/Mac).

4. Hardware Requirements:

Processor: Minimum 2 GHz dual-core.

RAM: At least 4 GB.

Storage: Minimum 500 MB for application and database files.

Analysis

1. Problem Statement:

Supermarkets often face challenges in managing billing and inventory manually, leading to errors, inefficiencies, and delays. A digital solution is required to address these issues by automating the process.

2. Feasibility Study:

Technical Feasibility:

The required tools (Java, DBMS) and resources are readily available.

Economic Feasibility:

Minimal development and implementation costs due to the use of open-source tools.

Operational Feasibility:

Staff can quickly adapt to the system with minimal training due to its user-friendly interface.

3. System Analysis:

Current Challenges:

Manual billing processes are error-prone and time-consuming.

Inefficient inventory tracking leads to overstocking or stockouts.

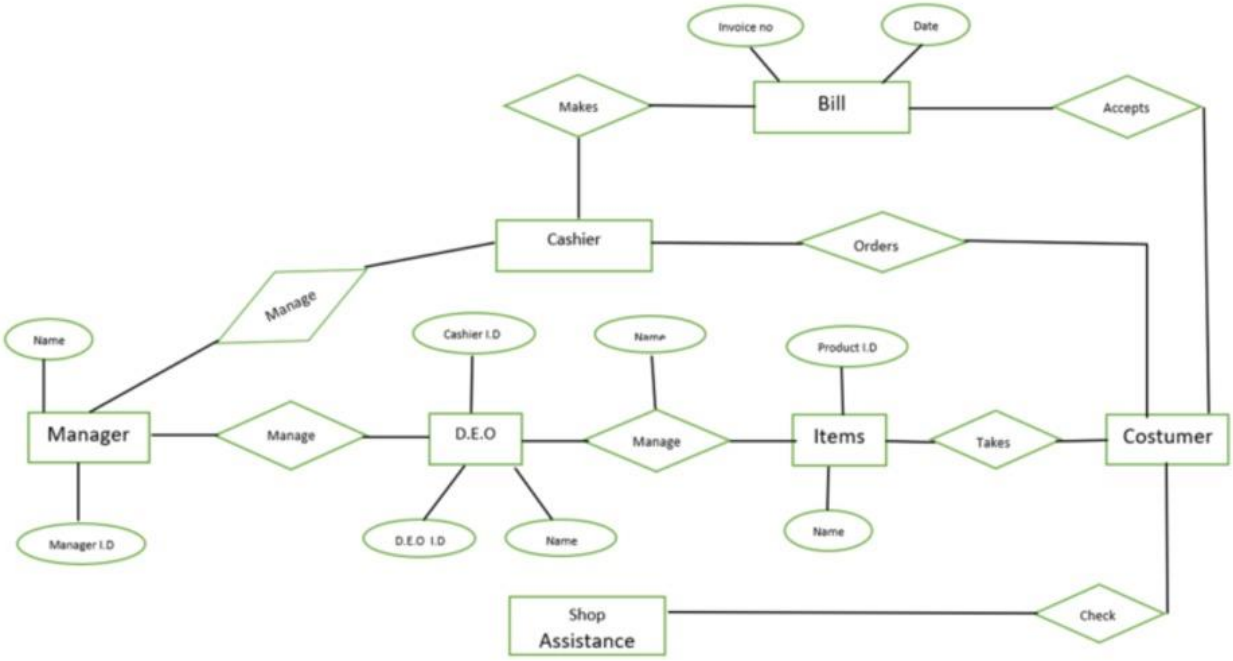
Proposed Solution:

A digital billing system that automates calculations and integrates real-time inventory management.

Relational database integration for secure and efficient data handling.

The Supermarket Billing System is designed to address these challenges by providing a comprehensive, efficient, and scalable solution that meets both functional and operational needs.

3.3 ER DIAGRAM



CHAPTER 4

PROGRAM CODE

1. LOGIN FRAME

```
import javax.swing.JOptionPane;

public class loginpage extends javax.swing.JFrame {

  public loginpage() {
    initComponents();
  }

@SuppressWarnings("unchecked")

  // <editor-fold defaultstate="collapsed" desc="Generated Code">
  private void initComponents() {

    jLabel1 = new javax.swing.JLabel();
    jLabel2 = new javax.swing.JLabel();
    jTextField1 = new javax.swing.JTextField();
    jPasswordField1 = new javax.swing.JPasswordField();
    jButton1 = new javax.swing.JButton();
    jButton2 = new javax.swing.JButton();
    jLabel3 = new javax.swing.JLabel();

    setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
    setUndecorated(true);

    jLabel1.setFont(new java.awt.Font("Sitka Subheading", 1, 18)); // NOI18N
    jLabel1.setForeground(new java.awt.Color(102, 204, 255));
    jLabel1.setText("Username :");

    jLabel2.setFont(new java.awt.Font("Sitka Subheading", 1, 18)); // NOI18N
    jLabel2.setForeground(new java.awt.Color(102, 204, 255));
    jLabel2.setText("Password :");

    jButton1.setFont(new java.awt.Font("SimSun-ExtB", 1, 14)); // NOI18N
    jButton1.setText("Login");
    jButton1.addActionListener(new java.awt.event.ActionListener() {
      public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
      }
    });

    jButton2.setFont(new java.awt.Font("SimSun-ExtB", 1, 14)); // NOI18N
```

```
        jButton2.setText("Close");
        jButton2.addActionListener(new java.awt.event.ActionListener() {
            public void actionPerformed(java.awt.event.ActionEvent evt) {
                jButton2ActionPerformed(evt);
            }
        });

        jLabel3.setFont(new java.awt.Font("Snap ITC", 3, 36)); // NOI18N
        jLabel3.setForeground(new java.awt.Color(255, 102, 102));
        jLabel3.setText("BILLING MANAGEMENT SYSTEM");

        javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
        getContentPane().setLayout(layout);
        layout.setHorizontalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGap(206, 206, 206)
                        .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 781,
javax.swing.GroupLayout.PREFERRED_SIZE))
                    .addGroup(layout.createSequentialGroup()
                        .addGap(436, 436, 436)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
                            .addGroup(layout.createSequentialGroup()
                                .addGap(36, 36, 36)
                                .addComponent(jButton1)
                                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED,
javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE)
                                .addComponent(jButton2))
                            .addGroup(javax.swing.GroupLayout.Alignment.TRAILING,
layout.createSequentialGroup()

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                                    .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 116,
javax.swing.GroupLayout.PREFERRED_SIZE)
                                    .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 116,
javax.swing.GroupLayout.PREFERRED_SIZE))

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING, false)
```

```
                        .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
128, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jPasswordField1,
javax.swing.GroupLayout.PREFERRED_SIZE, 128, javax.swing.GroupLayout.PREFERRED_SIZE))))))
            .addContainerGap(672, Short.MAX_VALUE))
      );
      layout.setVerticalGroup(
         layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
         .addGroup(layout.createSequentialGroup()
            .addGap(61, 61, 61)
            .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 39,
javax.swing.GroupLayout.PREFERRED_SIZE)
            .addGap(57, 57, 57)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
               .addComponent(jLabel1)
               .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(23, 23, 23)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
               .addComponent(jLabel2)
               .addComponent(jPasswordField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))
            .addGap(43, 43, 43)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
               .addComponent(jButton1)
               .addComponent(jButton2))
            .addContainerGap(505, Short.MAX_VALUE))
      );

      pack();
   }

   private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
      int a=JOptionPane.showConfirmDialog(null,"Do you really want to Close
Application","Select",JOptionPane.YES_NO_OPTION);
      if(a==0)
      {
         System.exit(0);
      }
   }

   private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
      if(jTextField1.getText().equals("Harshini") &&
jPasswordField1.getText().equals("Harshu_22"))
```

```
        {
            setVisible(false);
            new home().setVisible(true);
        }
        else
            JOptionPane.showMessageDialog(null,"Incorrect Username or Password");
    }

    public static void main(String args[]) {
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {

java.util.logging.Logger.getLogger(loginpage.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
        } catch (InstantiationException ex) {

java.util.logging.Logger.getLogger(loginpage.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
        } catch (IllegalAccessException ex) {

java.util.logging.Logger.getLogger(loginpage.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {

java.util.logging.Logger.getLogger(loginpage.class.getName()).log(java.util.logging.Level.SEVERE,
null, ex);
        }
        //</editor-fold>

        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new loginpage().setVisible(true);
            }
        });
    }
```

```
        // Variables declaration - do not modify
        private javax.swing.JButton jButton1;
        private javax.swing.JButton jButton2;
        private javax.swing.JLabel jLabel1;
        private javax.swing.JLabel jLabel2;
        private javax.swing.JLabel jLabel3;
        private javax.swing.JPasswordField jPasswordField1;
        private javax.swing.JTextField jTextField1;
        // End of variables declaration

    }
```

Home Page

```
import javax.swing.JOptionPane;

public class home extends javax.swing.JFrame {

    public home() {

        initComponents();}

    @SuppressWarnings("unchecked")

    // <editor-fold defaultstate="collapsed" desc="Generated Code">

    private void initComponents() {

        jButton1 = new javax.swing.JButton();

        jButton2 = new javax.swing.JButton();

        jButton3 = new javax.swing.JButton();

        jButton4 = new javax.swing.JButton();

        jButton5 = new javax.swing.JButton();

        jButton6 = new javax.swing.JButton();

        jButton7 = new javax.swing.JButton();

        jButton8 = new javax.swing.JButton();

        jButton9 = new javax.swing.JButton();

        jLabel1 = new javax.swing.JLabel();
```

```
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
jButton1.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton1.setForeground(new java.awt.Color(153, 153, 255));
jButton1.setText("New Buyer");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});
jButton2.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton2.setForeground(new java.awt.Color(153, 153, 255));
jButton2.setText("Buyer Detail");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});

jButton3.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton3.setForeground(new java.awt.Color(153, 153, 255));
jButton3.setText("New Product");
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(evt);
    }
});
jButton4.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton4.setForeground(new java.awt.Color(153, 153, 255));
jButton4.setText("Update Product");
```

```
jButton4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton4ActionPerformed(evt);
    }
});
jButton5.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton5.setForeground(new java.awt.Color(153, 153, 255));
jButton5.setText("Product details");
jButton5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton5ActionPerformed(evt);
    }
});
jButton6.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton6.setForeground(new java.awt.Color(153, 153, 255));
jButton6.setText("Delete Product");
jButton6.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton6ActionPerformed(evt);
    }
});
jButton7.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton7.setForeground(new java.awt.Color(153, 153, 255));
jButton7.setText("Billing");
jButton7.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton7ActionPerformed(evt);
    }
});
```

```
jButton8.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton8.setForeground(new java.awt.Color(153, 153, 255));
jButton8.setText("Logout");
jButton8.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton8ActionPerformed(evt);
    }
});
jButton9.setFont(new java.awt.Font("Trebuchet MS", 3, 18)); // NOI18N
jButton9.setForeground(new java.awt.Color(153, 153, 255));
jButton9.setText("Close Application");
jButton9.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton9ActionPerformed(evt);
    }
});
jLabel1.setFont(new java.awt.Font("Times New Roman", 3, 24)); // NOI18N
jLabel1.setForeground(new java.awt.Color(255, 102, 102));
jLabel1.setText("  H MART ");
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addComponent(jButton3)
            .addGroup(layout.createSequentialGroup()
                .addContainerGap()
                .addComponent(jButton1)
```

```
            .addGap(39, 39, 39)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
              .addComponent(jButton2)
              .addGroup(layout.createSequentialGroup()
                .addComponent(jButton4)
                .addGap(18, 18, 18)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                  .addGroup(layout.createSequentialGroup()
                    .addComponent(jButton8)
                    .addGap(145, 145, 145)
                    .addComponent(jButton9))
                  .addGroup(layout.createSequentialGroup()
                    .addComponent(jButton5)
                    .addGap(18, 18, 18)
                    .addComponent(jButton6))))))
          .addGroup(layout.createSequentialGroup()
            .addGap(99, 99, 99)
            .addComponent(jButton7))
          .addGroup(layout.createSequentialGroup()
            .addGap(438, 438, 438)
            .addComponent(jLabel1)))
        .addContainerGap(597, Short.MAX_VALUE))
);
layout.setVerticalGroup(
   layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
   .addGroup(layout.createSequentialGroup()
      .addGap(20, 20, 20)
      .addComponent(jLabel1)
      .addGap(113, 113, 113)
```

```
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jButton1)
                .addComponent(jButton2))
            .addGap(35, 35, 35)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jButton3)
                .addComponent(jButton4)
                .addComponent(jButton5)
                .addComponent(jButton6))
            .addGap(38, 38, 38)
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                .addComponent(jButton7)
                .addComponent(jButton8)
                .addComponent(jButton9))
            .addContainerGap(449, Short.MAX_VALUE))
        );
        pack();
    }// </editor-fold>
    private void jButton8ActionPerformed(java.awt.event.ActionEvent evt) {
         int a = JOptionPane.showConfirmDialog(null,"Do you really want to
Logout","Select",JOptionPane.YES_NO_OPTION);
        if(a==0)
        {
            setVisible(false);
            new loginpage().setVisible(true);
        }
    }
    private void jButton9ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
        int a = JOptionPane.showConfirmDialog(null,"Do you really want to
Close","Select",JOptionPane.YES_NO_OPTION);
        if(a==0)
        {
            System.exit(0);
        }
    }
    private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new NewBuyer().setVisible(true);
    }
    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new NewProduct().setVisible(true);
    }
    private void jButton5ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new ProductDetails().setVisible(true);
    }
    private void jButton6ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new DeleteProduct().setVisible(true);
    }
    private void jButton7ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        new Billing().setVisible(true);
    }

    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
```

```
        new BuyerDetails().setVisible(true);
    }
    private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
        new UpdateProduct().setVisible(true);
    }
    public static void main(String args[]) {
        /* Set the Nimbus look and feel */
        //<editor-fold defaultstate="collapsed" desc=" Look and feel setting code (optional) ">
        /* If Nimbus (introduced in Java SE 6) is not available, stay with the default look and feel.
         * For details see http://download.oracle.com/javase/tutorial/uiswing/lookandfeel/plaf.html
         */
        try {
            for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
                if ("Nimbus".equals(info.getName())) {
                    javax.swing.UIManager.setLookAndFeel(info.getClassName());
                    break;
                }
            }
        } catch (ClassNotFoundException ex) {
            java.util.logging.Logger.getLogger(home.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
        } catch (InstantiationException ex) {
            java.util.logging.Logger.getLogger(home.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
        } catch (IllegalAccessException ex) {
            java.util.logging.Logger.getLogger(home.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
        } catch (javax.swing.UnsupportedLookAndFeelException ex) {
```

```
            java.util.logging.Logger.getLogger(home.class.getName()).log(java.util.logging.Level.SEVERE, null,
ex);
        }
        //</editor-fold>
        /* Create and display the form */
        java.awt.EventQueue.invokeLater(new Runnable() {
            public void run() {
                new home().setVisible(true);
            }
        });
    }
    // Variables declaration - do not modify
    private javax.swing.JButton jButton1;
    private javax.swing.JButton jButton2;
    private javax.swing.JButton jButton3;
    private javax.swing.JButton jButton4;
    private javax.swing.JButton jButton5;
    private javax.swing.JButton jButton6;
    private javax.swing.JButton jButton7;
    private javax.swing.JButton jButton8;
    private javax.swing.JButton jButton9;
    private javax.swing.JLabel jLabel1;
    private static class Billing {
        public Billing() {
        }
        private void setVisible(boolean b) {
            throw new UnsupportedOperationException("Not supported yet."); // Generated from
nbfs://nbhost/SystemFileSystem/Templates/Classes/Code/GeneratedMethodBody
        }
```

```
    }
}
```

BILLING

```
import java.sql.*;
import Project.ConnectionProvider;
import java.time.format.DateTimeFormatter;
import javax.swing.JOptionPane;
import java.util.Date;
import javax.swing.table.DefaultTableModel;
import com.itextpdf.text.Paragraph;
import com.itextpdf.text.pdf.PdfPTable;
import com.itextpdf.text.pdf.PdfWriter;
import java.io.FileOutputStream;
import java.text.SimpleDateFormat;
import java.time.LocalDateTime;
public class Billing extends javax.swing.JFrame {
    public int finalTotal=0;
    public Billing() {
        initComponents();
        SimpleDateFormat dFormat=new SimpleDateFormat("dd-MM-yyyy");
        Date date=new Date();
        jLabel15.setText(dFormat.format(date));
        DateTimeFormatter dtf=DateTimeFormatter.ofPattern("HH:mm:ss");
        LocalDateTime now=LocalDateTime.now();
        jLabel6.setText(dtf.format(now));
    }
    @SuppressWarnings("unchecked")
    // <editor-fold defaultstate="collapsed" desc="Generated Code">
    private void initComponents() {
```

```
jScrollPane1 = new javax.swing.JScrollPane();
jTable1 = new javax.swing.JTable();
jLabel1 = new javax.swing.JLabel();
jLabel2 = new javax.swing.JLabel();
jLabel3 = new javax.swing.JLabel();
jLabel4 = new javax.swing.JLabel();
jLabel5 = new javax.swing.JLabel();
jSeparator1 = new javax.swing.JSeparator();
jLabel6 = new javax.swing.JLabel();
jLabel7 = new javax.swing.JLabel();
jTextField1 = new javax.swing.JTextField();
jLabel8 = new javax.swing.JLabel();
jTextField2 = new javax.swing.JTextField();
jLabel9 = new javax.swing.JLabel();
jTextField3 = new javax.swing.JTextField();
jLabel10 = new javax.swing.JLabel();
jTextField4 = new javax.swing.JTextField();
jSeparator2 = new javax.swing.JSeparator();
jLabel11 = new javax.swing.JLabel();
jLabel12 = new javax.swing.JLabel();
jTextField5 = new javax.swing.JTextField();
jLabel13 = new javax.swing.JLabel();
jTextField6 = new javax.swing.JTextField();
jLabel14 = new javax.swing.JLabel();
jTextField7 = new javax.swing.JTextField();
jLabel15 = new javax.swing.JLabel();
jTextField8 = new javax.swing.JTextField();
jLabel16 = new javax.swing.JLabel();
jTextField9 = new javax.swing.JTextField();
```

```
jButton1 = new javax.swing.JButton();
jSeparator3 = new javax.swing.JSeparator();
jScrollPane2 = new javax.swing.JScrollPane();
jTable2 = new javax.swing.JTable();
jLabel17 = new javax.swing.JLabel();
jLabel18 = new javax.swing.JLabel();
jLabel19 = new javax.swing.JLabel();
jLabel20 = new javax.swing.JLabel();
jTextField10 = new javax.swing.JTextField();
jTextField11 = new javax.swing.JTextField();
jTextField12 = new javax.swing.JTextField();
jButton2 = new javax.swing.JButton();
jButton3 = new javax.swing.JButton();
jButton4 = new javax.swing.JButton();
jTable1.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {
        {null, null, null, null},
        {null, null, null, null},
        {null, null, null, null},
        {null, null, null, null}
    },
    new String [] {
        "Title 1", "Title 2", "Title 3", "Title 4"
    }
));
jScrollPane1.setViewportView(jTable1);
setDefaultCloseOperation(javax.swing.WindowConstants.EXIT_ON_CLOSE);
setUndecorated(true);
jLabel1.setFont(new java.awt.Font("Sitka Subheading", 3, 40)); // NOI18N
```

```
jLabel1.setForeground(new java.awt.Color(0, 153, 153));
jLabel1.setText("Billing");
jLabel2.setText("Date:");
jLabel3.setText("Time:");
jLabel4.setText("jLabel4");
jLabel5.setText("jLabel5");
jLabel6.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel6.setText("Buyer Details :");
jLabel7.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel7.setText("Name:");
jTextField1.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jTextField1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField1ActionPerformed(evt);
    }
});
jLabel8.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel8.setText("Contact No.:");
jTextField2.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jTextField2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField2ActionPerformed(evt);
    }
});
jLabel9.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel9.setText("Email :");
jTextField3.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jLabel10.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel10.setText("Address :");
```

```
jTextField4.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jLabel11.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel11.setText("Product Details :")
jLabel12.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel12.setText("Product ID :");
jTextField5.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jTextField5.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField5ActionPerformed(evt);
    }
});
jLabel13.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel13.setText("Product Name :");
jTextField6.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jLabel14.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel14.setText("Rate :");
jTextField7.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jTextField7.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField7ActionPerformed(evt);
    }
});
jLabel15.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel15.setText("Quantity :");
jTextField8.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jLabel16.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel16.setText("Description :");
jTextField9.setFont(new java.awt.Font("Segoe UI", 0, 14)); // NOI18N
jButton1.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
```

```
jButton1.setText("ADD");
jButton1.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton1ActionPerformed(evt);
    }
});

jTable2.setModel(new javax.swing.table.DefaultTableModel(
    new Object [][] {
    },
    new String [] {
        "Name", "Description", "Rate", "Quantity", "Sub Total"
    }
));
jScrollPane2.setViewportView(jTable2);
jLabel17.setFont(new java.awt.Font("Segoe UI", 1, 18)); // NOI18N
jLabel17.setText("Calculation Details :");
jLabel18.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel18.setText("Total :");
jLabel19.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel19.setText("Paid Amount :");
jLabel20.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jLabel20.setText("Return Amount :");
jTextField11.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jTextField11ActionPerformed(evt);
    }
});
jButton2.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
```

```
jButton2.setText("Save");
jButton2.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton2ActionPerformed(evt);
    }
});
jButton3.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jButton3.setText("Reset");
jButton3.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton3ActionPerformed(evt);
    }
});
jButton4.setFont(new java.awt.Font("Segoe UI", 1, 14)); // NOI18N
jButton4.setText("Close");
jButton4.addActionListener(new java.awt.event.ActionListener() {
    public void actionPerformed(java.awt.event.ActionEvent evt) {
        jButton4ActionPerformed(evt);
    }
});
javax.swing.GroupLayout layout = new javax.swing.GroupLayout(getContentPane());
getContentPane().setLayout(layout);
layout.setHorizontalGroup(
    layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
    .addGroup(layout.createSequentialGroup()
        .addGap(23, 23, 23)
        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
```

.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)

.addComponent(jSeparator3, javax.swing.GroupLayout.Alignment.LEADING, javax.swing.GroupLayout.DEFAULT_SIZE, 1220, Short.MAX_VALUE)

.addComponent(jLabel6, javax.swing.GroupLayout.Alignment.LEADING, javax.swing.GroupLayout.PREFERRED_SIZE, 104, javax.swing.GroupLayout.PREFERRED_SIZE)

.addGroup(javax.swing.GroupLayout.Alignment.LEADING, layout.createSequentialGroup()

addGap(332, 332, 332)

.addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE, 160, javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

.addComponent(jLabel9, javax.swing.GroupLayout.PREFERRED_SIZE, 70, javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE, 187, javax.swing.GroupLayout.PREFERRED_SIZE)

.addGap(18, 18, 18)

.addComponent(jLabel8, javax.swing.GroupLayout.PREFERRED_SIZE, 103, javax.swing.GroupLayout.PREFERRED_SIZE)

.addGap(18, 18, 18)

.addComponent(jTextField4, javax.swing.GroupLayout.PREFERRED_SIZE, 153, javax.swing.GroupLayout.PREFERRED_SIZE))

.addComponent(jSeparator1, javax.swing.GroupLayout.Alignment.LEADING)

.addGroup(javax.swing.GroupLayout.Alignment.LEADING, layout.createSequentialGroup()

.addComponent(jLabel7, javax.swing.GroupLayout.PREFERRED_SIZE, 74, javax.swing.GroupLayout.PREFERRED_SIZE)

.addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

.addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE, 160, javax.swing.GroupLayout.PREFERRED_SIZE)

.addGap(18, 18, 18)

```
                    .addComponent(jLabel10, javax.swing.GroupLayout.PREFERRED_SIZE, 83,
javax.swing.GroupLayout.PREFERRED_SIZE))

                .addComponent(jSeparator2, javax.swing.GroupLayout.Alignment.LEADING))

            .addContainerGap(javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))

        .addGroup(layout.createSequentialGroup()

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)

                .addComponent(jButton1)

                .addGroup(layout.createSequentialGroup()

                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                        .addComponent(jLabel11, javax.swing.GroupLayout.PREFERRED_SIZE, 148,
javax.swing.GroupLayout.PREFERRED_SIZE)

                        .addComponent(jLabel12, javax.swing.GroupLayout.PREFERRED_SIZE, 84,
javax.swing.GroupLayout.PREFERRED_SIZE))

                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

                    .addComponent(jTextField5, javax.swing.GroupLayout.PREFERRED_SIZE, 99,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addGap(12, 12, 12)

                    .addComponent(jLabel13, javax.swing.GroupLayout.PREFERRED_SIZE, 114,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

                    .addComponent(jTextField6, javax.swing.GroupLayout.PREFERRED_SIZE, 101,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

                    .addComponent(jLabel14, javax.swing.GroupLayout.PREFERRED_SIZE, 43,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

                    .addComponent(jTextField7, javax.swing.GroupLayout.PREFERRED_SIZE, 103,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

                    .addComponent(jLabel15, javax.swing.GroupLayout.PREFERRED_SIZE, 78,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
```

```
                    .addComponent(jTextField8, javax.swing.GroupLayout.PREFERRED_SIZE, 100,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addGap(18, 18, 18)

                    .addComponent(jLabel16, javax.swing.GroupLayout.PREFERRED_SIZE, 95,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)

                    .addComponent(jTextField9, javax.swing.GroupLayout.PREFERRED_SIZE, 212,
javax.swing.GroupLayout.PREFERRED_SIZE)))

                .addGap(0, 0, Short.MAX_VALUE))))

        .addGroup(layout.createSequentialGroup()

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                .addGroup(layout.createSequentialGroup()

                .addGap(29, 29, 29)

                .addComponent(jScrollPane2, javax.swing.GroupLayout.PREFERRED_SIZE, 628,
javax.swing.GroupLayout.PREFERRED_SIZE)

                .addGap(18, 18, 18)

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                    .addComponent(jLabel17, javax.swing.GroupLayout.PREFERRED_SIZE, 181,
javax.swing.GroupLayout.PREFERRED_SIZE)

                    .addGroup(layout.createSequentialGroup()

                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                            .addGroup(layout.createSequentialGroup()

                                .addComponent(jLabel18, javax.swing.GroupLayout.PREFERRED_SIZE, 53,
javax.swing.GroupLayout.PREFERRED_SIZE)

                                .addGap(104, 104, 104)

                                .addComponent(jTextField10, javax.swing.GroupLayout.PREFERRED_SIZE, 261,
javax.swing.GroupLayout.PREFERRED_SIZE))

                            .addGroup(layout.createSequentialGroup()


.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING, false)

                                .addComponent(jLabel20, javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, 135, Short.MAX_VALUE)
```

```
                        .addComponent(jLabel19, javax.swing.GroupLayout.Alignment.LEADING,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.DEFAULT_SIZE, Short.MAX_VALUE))

                    .addGap(22, 22, 22)


.addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                        .addComponent(jTextField11, javax.swing.GroupLayout.PREFERRED_SIZE, 261,
javax.swing.GroupLayout.PREFERRED_SIZE)

                        .addComponent(jTextField12, javax.swing.GroupLayout.PREFERRED_SIZE, 261,
javax.swing.GroupLayout.PREFERRED_SIZE))))

                .addGap(35, 35, 35)

                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)

                  .addComponent(jButton3)

                  .addComponent(jButton2)

                  .addComponent(jButton4)))))

            .addGroup(layout.createSequentialGroup()

              .addGap(157, 157, 157)

              .addComponent(jLabel1, javax.swing.GroupLayout.PREFERRED_SIZE, 128,
javax.swing.GroupLayout.PREFERRED_SIZE)

              .addGap(493, 493, 493)

              .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.TRAILING)

                .addGroup(layout.createSequentialGroup()

                  .addComponent(jLabel3, javax.swing.GroupLayout.PREFERRED_SIZE, 37,
javax.swing.GroupLayout.PREFERRED_SIZE)

                  .addGap(111, 111, 111)

                  .addComponent(jLabel5, javax.swing.GroupLayout.PREFERRED_SIZE, 37,
javax.swing.GroupLayout.PREFERRED_SIZE))

                .addGroup(layout.createSequentialGroup()

                  .addComponent(jLabel2, javax.swing.GroupLayout.PREFERRED_SIZE, 37,
javax.swing.GroupLayout.PREFERRED_SIZE)

                  .addGap(111, 111, 111)

                  .addComponent(jLabel4, javax.swing.GroupLayout.PREFERRED_SIZE, 37,
javax.swing.GroupLayout.PREFERRED_SIZE)))))
```

```
            .addContainerGap(49, Short.MAX_VALUE))
        );
        layout.setVerticalGroup(
            layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
            .addGroup(layout.createSequentialGroup()
                .addGap(21, 21, 21)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                    .addGroup(layout.createSequentialGroup()
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                            .addComponent(jLabel2)
                            .addComponent(jLabel4))
                        .addGap(30, 30, 30)
                        .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                            .addComponent(jLabel3)
                            .addComponent(jLabel5)))
                    .addComponent(jLabel1))
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)
                .addComponent(jSeparator1, javax.swing.GroupLayout.PREFERRED_SIZE, 10,
javax.swing.GroupLayout.PREFERRED_SIZE)
                .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                .addComponent(jLabel6)
                .addGap(18, 18, 18)
                .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                    .addComponent(jLabel7)
                    .addComponent(jTextField1, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel10)
                    .addComponent(jTextField2, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                    .addComponent(jLabel9)
```

```
                .addComponent(jTextField3, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jLabel8)

                .addComponent(jTextField4, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

            .addGap(27, 27, 27)

            .addComponent(jSeparator2, javax.swing.GroupLayout.PREFERRED_SIZE, 10,
javax.swing.GroupLayout.PREFERRED_SIZE)

            .addGap(18, 18, 18)

            .addComponent(jLabel11)

            .addGap(18, 18, 18)

            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)

                .addComponent(jTextField5, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jLabel13)

                .addComponent(jTextField6, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jLabel12)

                .addComponent(jLabel14)

                .addComponent(jTextField7, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jLabel15)

                .addComponent(jTextField8, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)

                .addComponent(jLabel16)

                .addComponent(jTextField9, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE))

            .addGap(29, 29, 29)

            .addComponent(jButton1)

            .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.UNRELATED)

            .addComponent(jSeparator3, javax.swing.GroupLayout.PREFERRED_SIZE, 10,
javax.swing.GroupLayout.PREFERRED_SIZE)
```

```
            .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.LEADING)
                .addGroup(layout.createSequentialGroup()
                    .addPreferredGap(javax.swing.LayoutStyle.ComponentPlacement.RELATED)
                    .addComponent(jScrollPane2, javax.swing.GroupLayout.PREFERRED_SIZE, 203,
javax.swing.GroupLayout.PREFERRED_SIZE))
                .addGroup(layout.createSequentialGroup()
                    .addGap(20, 20, 20)
                    .addComponent(jLabel17)
                    .addGap(32, 32, 32)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(jLabel18)
                        .addComponent(jTextField10, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jButton2))
                    .addGap(23, 23, 23)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(jLabel19)
                        .addComponent(jTextField11, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jButton3))
                    .addGap(28, 28, 28)
                    .addGroup(layout.createParallelGroup(javax.swing.GroupLayout.Alignment.BASELINE)
                        .addComponent(jLabel20)
                        .addComponent(jTextField12, javax.swing.GroupLayout.PREFERRED_SIZE,
javax.swing.GroupLayout.DEFAULT_SIZE, javax.swing.GroupLayout.PREFERRED_SIZE)
                        .addComponent(jButton4))))
            .addContainerGap(22, Short.MAX_VALUE))
        );
        pack();
    }// </editor-fold>
```

```
private void jTextField1ActionPerformed(java.awt.event.ActionEvent evt) {
     // TODO add your handling code here:
   String name = jTextField1.getText();
   try {
      Connection con = ConnectionProvider.getCon();
      Statement st = con.createStatement();
      ResultSet rs = st.executeQuery("select * from buyer where name like '" + name + "%'");
      if (rs.next()) {
         jTextField1.setText(rs.getString(1));
         jTextField2.setText(rs.getString(2));
         jTextField3.setText(rs.getString(3));
         jTextField4.setText(rs.getString(4));
      }//catch (SQLException ex) {
      //Logger.getLogger(Billing.class.getName()).log(Level.SEVERE, null, ex);
      else {
         jTextField2.setText("");
         jTextField3.setText("");
         jTextField4.setText("");
      }
   } catch (Exception e) {
      JOptionPane.showMessageDialog(null, e);
   }
}
private void jTextField2ActionPerformed(java.awt.event.ActionEvent evt) {
   // TODO add your handling code here:
   String contactNo = jTextField2.getText();
   try {
      Connection con = ConnectionProvider.getCon();
      Statement st = con.createStatement();
```

```
        ResultSet rs = st.executeQuery("select * from buyer where contactno like '" + contactNo + "%'");
        if (rs.next()) {
            jTextField1.setText(rs.getString(1));
            jTextField2.setText(rs.getString(2));
            jTextField3.setText(rs.getString(3));
            jTextField4.setText(rs.getString(4));
        } else {
            jTextField1.setText("");
            jTextField3.setText("");
            jTextField4.setText("");
        }
    } catch (SQLException e) {
        JOptionPane.showMessageDialog(null, e);
    }
}
private void jTextField5ActionPerformed(java.awt.event.ActionEvent evt) {
    // TODO add your handling code here:
    String pid = jTextField5.getText();
    try {
        Connection con = ConnectionProvider.getCon();
        Statement st = con.createStatement();
        ResultSet rs = st.executeQuery("select * from product where pId ='" + pid + "%'");
        if (rs.next()) {
            jTextField6.setText(rs.getString(2));
            jTextField7.setText(rs.getString(3));
            jTextField8.setText("1");
            jTextField9.setText(rs.getString(4));
        } else {
            jTextField6.setText("");
```

```
            jTextField7.setText("");
            jTextField8.setText("");
            jTextField9.setText("");
        }
    } catch (SQLException e) {
        JOptionPane.showMessageDialog(null, e);
    }
}
private void jTextField7ActionPerformed(java.awt.event.ActionEvent evt) {
}
private void jButton1ActionPerformed(java.awt.event.ActionEvent evt) {
    int price = Integer.parseInt(jTextField7.getText());
    int quantity = Integer.parseInt(jTextField8.getText());
    int total = price * quantity;
    DefaultTableModel model = (DefaultTableModel) jTable2.getModel();
    model.addRow(new Object[]{jTextField6.getText(), jTextField9.getText(), price, quantity, total});
    finalTotal = finalTotal+ total;
    String finalTotal1 = String.valueOf(finalTotal);
    jTextField10.setText(finalTotal1);
}
private void jTextField11ActionPerformed(java.awt.event.ActionEvent evt) {
    String paidAmount = jTextField11.getText();
    int z = Integer.parseInt(paidAmount);
    finalTotal = z-finalTotal;
    String finalTotal1 = String.valueOf(finalTotal);
    jTextField12.setText(finalTotal1);
    jTextField12.setEditable(false);    }
private void jButton4ActionPerformed(java.awt.event.ActionEvent evt) {
    setVisible(false);
```

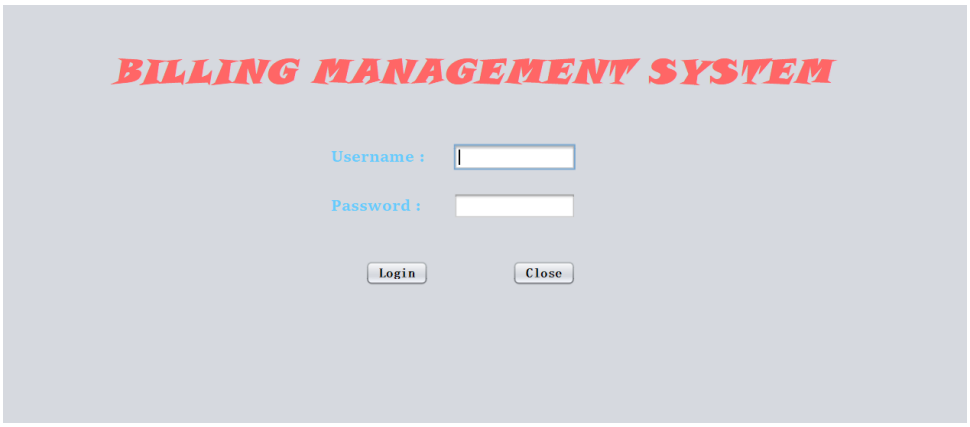
```
    }


    private void jButton3ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        setVisible(false);
        new Billing().setVisible(true);
    }
    private void jButton2ActionPerformed(java.awt.event.ActionEvent evt) {
        // TODO add your handling code here:
        String name = jTextField1.getText();
        String contactNo = jTextField2.getText();
        String email = jTextField3.getText();
        String address = jTextField4.getText();
        String path = "E: \\";
        com.itextpdf.text.Document doc = new com.itextpdf.text.Document();
        try {
            PdfWriter.getInstance(doc, new FileOutputStream(path + "" + name + " " + jLabel5.getText() +
".pdf"));
            doc.open();
            Paragraph paragraph1 = new Paragraph("BTech Days (Billing Management System) \nContact
Number:(+91)72010596\n\n");
            doc.add(paragraph1);
            Paragraph paragraph2 = new Paragraph("Date & Time:" + jLabel5.getText() + " " +
jLabel6.getText() + "\nBuyer Details: \nName: " + name + "\nContact NO" + contactNo + "\nemail:" +
email + "\nAddress" + address + "\n\n");
            doc.add(paragraph2);
            PdfPTable tbl = new PdfPTable(5);
            tbl.addCell("Name");
            tbl.addCell("Description");
            tbl.addCell("Rate");
```

```
            tbl.addCell("Quantity");
            tbl.addCell("Sub Total");
            for (int i = 0; i < jTable2.getRowCount(); i++) {
                String n = jTable2.getValueAt(i, 0).toString();
                String d = jTable2.getValueAt(i, 1).toString();
                String r = jTable2.getValueAt(i, 2).toString();
                String q = jTable2.getValueAt(i, 3).toString();
                String s = jTable2.getValueAt(i, 4).toString();
                tbl.addCell(n);
                tbl.addCell(d);
                tbl.addCell(r);
                tbl.addCell(q);
                tbl.addCell(s);
            }
            doc.add(tbl);
            Paragraph paragraph3 = new Paragraph("\nTotal" + jTextField10.getText() + "\nPaid Amount" +
jTextField1.getText() + "\nReturn  Amount" + jTextField2.getText() + "\nThanks you for visiting! please
come again. \nBtech Days");
            doc.add(paragraph3);
            JOptionPane.showMessageDialog(null, "Bill Generated");
            setVisible(true);
            new Billing().setVisible(true);
        } catch (Exception e) {
            JOptionPane.showMessageDialog(null, e);
        }
    }
    try {
        for (javax.swing.UIManager.LookAndFeelInfo info :
javax.swing.UIManager.getInstalledLookAndFeels()) {
            if ("Nimbus".equals(info.getName())) {
```

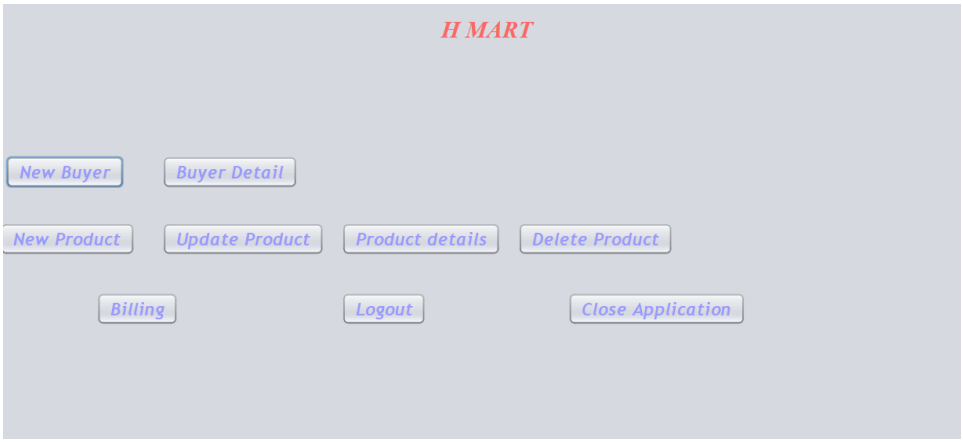
```
            javax.swing.UIManager.setLookAndFeel(info.getClassName());
            break;
        }
    }
} catch (ClassNotFoundException ex) {
    java.util.logging.Logger.getLogger(Billing.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (InstantiationException ex) {
    java.util.logging.Logger.getLogger(Billing.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (IllegalAccessException ex) {
    java.util.logging.Logger.getLogger(Billing.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
} catch (javax.swing.UnsupportedLookAndFeelException ex) {
    java.util.logging.Logger.getLogger(Billing.class.getName()).log(java.util.logging.Level.SEVERE, null, ex);
}
java.awt.EventQueue.invokeLater(new Runnable() {
    public void run() {
        new Billing().setVisible(true);
    }
});
}  }
```

RESULT AND DISCUSSION

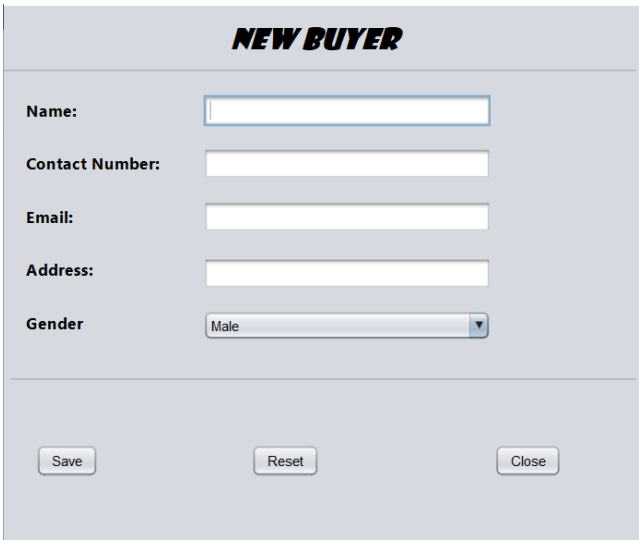
LOGIN:



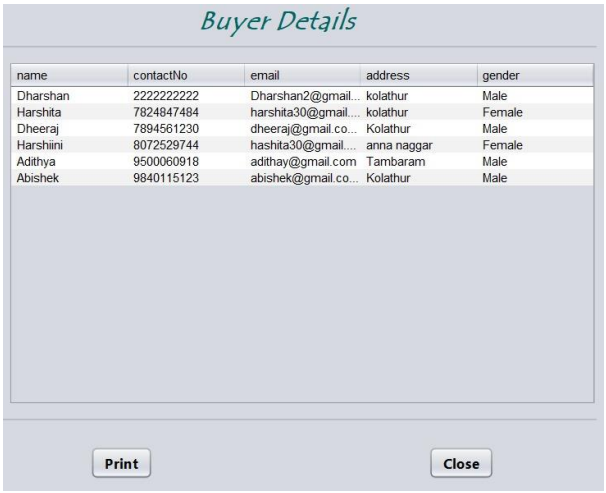
HOME:



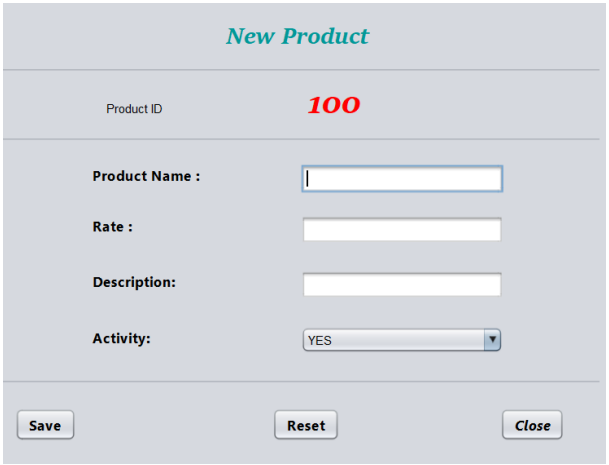
NEW BUYER :



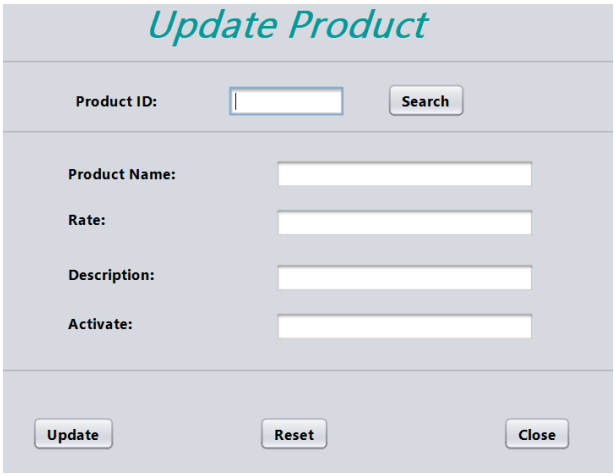
BUYER DETAILS:



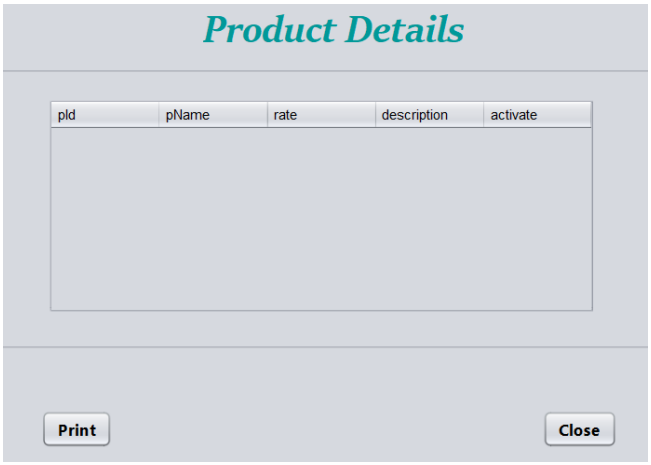
NEW PRODUCT :



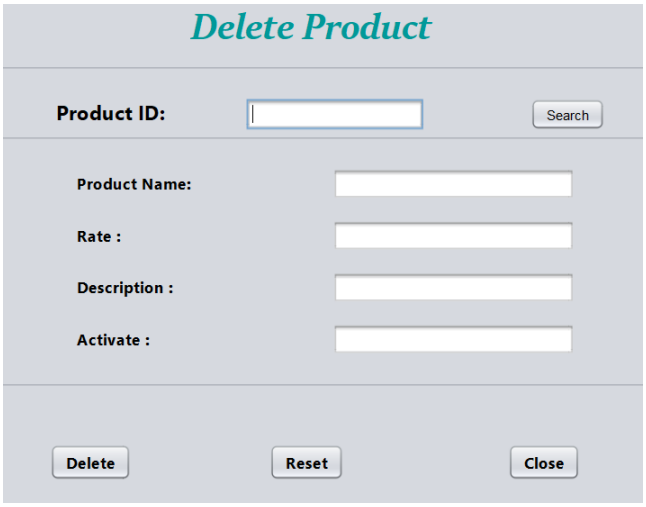
UPDATE PRODUCT :



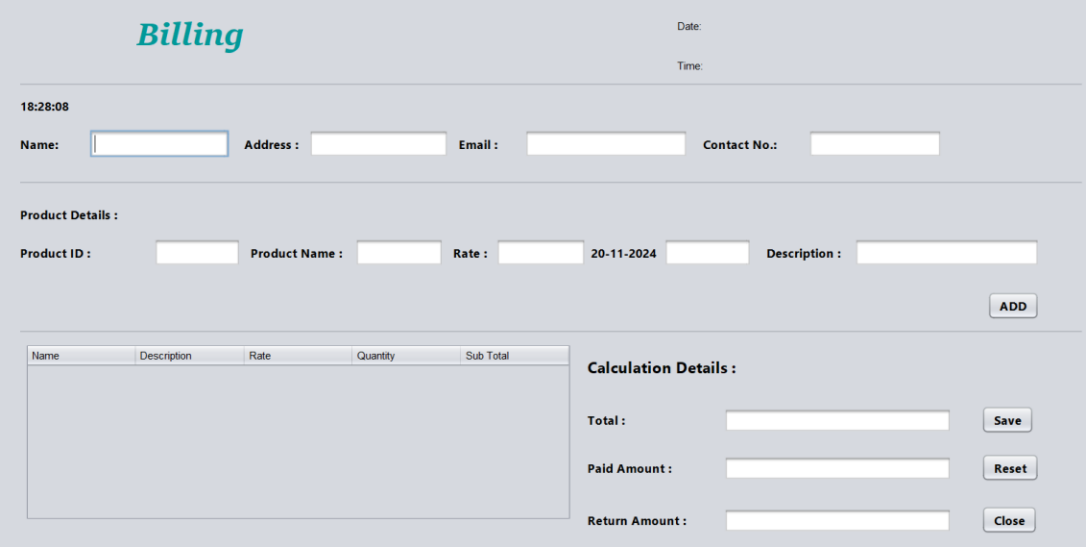
PRODUCT DETAILS:



DELETE PRODUCT:



BILLING PAGE :



CONCLUSION

The Supermarket Billing System represents a comprehensive solution to address the challenges of traditional billing and inventory management. By automating key processes, it **reduces** the reliance on manual operations, which are prone to errors and inefficiencies. This automation ensures accuracy in generating bills, calculating discounts, and applying taxes, thereby streamlining the checkout experience for customers. With its user-friendly interface, the system also simplifies staff training, allowing employees to operate it efficiently and improve service quality.

Beyond billing, the system enhances inventory management by tracking stock levels in real-time. It provides valuable insights into product availability, sales trends, and restocking needs, enabling supermarkets to make informed decisions. This feature not only reduces the risk of overstocking or understocking but also helps optimize the supply chain, ensuring that popular items are always available to customers. Additionally, the system's reporting capabilities enable businesses to analyze sales performance, identify high-demand products, and strategize effectively to maximize revenue.

In essence, the Supermarket Billing System is a vital tool for modern retail operations. By combining billing, inventory management, and analytics, it offers a holistic approach to managing supermarket workflows. The system not only saves

time and reduces operational costs but also enhances customer satisfaction through faster, more accurate service. Its adoption ensures that supermarkets remain competitive in a fast-paced market while fostering a seamless shopping experience for their customers.

REFERENCES

https://www.youtube.com/watch?v=i0c1b_LK5WQ