

COLLEGE OF COMMERCE, ARTS AND SCIENCE, PATNA



Project report

on

Visual Basic 6.0 and Oracle SQL

**For
Academic Session
2022-2025**

Submitted by

Name -

Roll no -

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Under the guidance of

Teacher's name -

Subject -

**Department- BCA (BACHELOR OF
COMPUTER APPLICATIONS)**

*Sweet
Shop*

MANAGEMENT SYSTEM



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ACKNOWLEDGMENT

"The genuine success comes with the cooperation and smiles of many hardworking hands and faces."

My project, "**Sweet shop management System**" is no exception. There are numerous individuals behind the scenes who have contributed to making this project a success, and it is my privilege to express my heartfelt gratitude to all of them.

First and foremost, I extend my deepest gratitude to **Almighty God**, whose blessings, guidance, and love have always been my source of strength. Without His grace, this project would have remained just a dream.

I am immensely thankful to my parents, who have provided not only financial support but also constant encouragement, emotional strength, and motivation. Their love and guidance have been invaluable throughout this journey.

A special note of gratitude to **Mr. Khurshid Alam Sir** and **Mr. Amitesh Kumar Sir** along with the faculty members of my study center, COC, for their unwavering support, insightful suggestions, and encouragement throughout the development of this project.

Last but not least, I am deeply thankful to my friends and well-wishers for their constant support, motivation, and prayers. Their encouragement has been instrumental in completing this project successfully.

This project is dedicated to all those who have stood by me, supported me, and believed in me.

With hope and gratitude,

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PROFESSIONAL SNAPSHOT

- ☒ Principal I/C at MGM College, Patna
- ☒ Worked as Academic Head/HOD, Comp Sc & Management at MGM Group of Institutions, Patna.
- ☒ Working as Guest faculty at BCA, BSc IT & MCA College of Commerce Arts and Science, Patna.
- ☒ Pursuing Ph D Asian International University, Manipur (will award in last of the year).
- ☒ UGC NET (Computer Sc & Applications) Qualified.
- ☒ M Tech in IT, MCA, BCA, CSSA.
Around 20+ years of experience in IT as senior faculty, Faculty and Guest Faculty in various organizations.



1 Book, 6 Paper Presentation, 4 Publication & various Expert Lectures.
Knowledge of NAAC, IAQC, AIHSE and another Affiliation & Accreditation related works.

Worked with AXIS BANK as Assistant Manager.

Skilled in conducting technical and motivational sessions for enhancing performance to provide quality service for my team members as a Team Leader.

Attended Seminars as Expert and Tech motivator in various Engineering Colleges of Bihar to provide new Ideas in IT under program Technology Innovation Management Centre Patna, sponsored by DSIR, Ministry of Science and Technology, New Delhi.

ORGANIZATIONAL DETAILS (Academics)

- ☒ Working with MGM College, Patna as Academic Head & HOD Comp Sc & Management from May 2012 to till. Prime responsibilities are, to Manage Class of all departments, internal assessments exam scheduling, conduct and evolution, company tie-ups for placement etc.
- ☒ Working as faculty member with Dept Of MCA, BCA and BSc IT in College of Commerce Arts & Science, Patna from Aug 2016
- ☒ Worked with Arcade Business College, Patna as a Computer Science Faculty from Aug 08 to Dec 2010
- ☒ Working with Institute of Entrepreneurship Development, Bihar Patna from Jan 06 to Dec 2014 as a Guest faculty and Tech consultant.
- ☒ Worked with DOEACC Society ATC (Erstwhile CEDTI) Boring Road, Patna as an IT faculty from Feb -2004 to Aug -2005.

ORGANIZATIONAL DETAILS (Technical)

- ☒ Worked with AXIS Bank Ltd. as Assistant Manager from Aug 2011 to April 2012.
- ☒ Multimind Technologies, Patna from Oct 2008 to July 2011.
- ☒ Hold position of MD Green Information Systems Pvt Ltd.
- ☒ Worked as a freelance IT & Skill Development Consultant at IED, Bihar, Patna (A Govt of Bihar Setup) from Jan 2007 to May 2018.

Workshops/Seminars/Training Programs Participation

- Participated in 5th International Conference on Innovative Strategies Advancements in Academics and Research: Navigating Global Scenarios at Shia PG College, Lucknow on 28-29 October 2023.
- Participated in Webinar titled “Hadoop Ecosystem in Big Data Technology” organized by Centre for Development of Advanced Computing (CDAC) on 29th May 2023.
- Participated in International Conference on Electronic Materials and Applications (ICEMA 2022) at A N College, Patna on 16-17 September 2022.
- Delivered lecture on Cloud Concepts, Enabling-technologies, and Models: The Cloud Context at MGM College, Patna on 31st March 2015.
- Participated in “Microsoft India App Fest” 2013 at Zakir Hussain Institute Patna on 26th Feb 2013.
- Participated in Axis Bank Rupee Parichay program 2011-12 held on 24 Oct 2011 at Patna.

Workshops/Seminars/Training Programs Participation

- Delivered lecture on Cloud Concepts, Enabling-technologies, and Models: The Cloud Context at MGM College, Patna on 31st March 2015.
- Delivered lecture on “The Changing Face of E-Commerce” at MGM College, Patna on 22 Nov 2014.
- Delivered lectures in One week Training on Information security and awareness at Institute of Entrepreneurship Development, Bihar Patna, Udyog Bhawan, Gandhi Maidan, Patna under TIMC Program sponsored by of DSIR, Ministry of Science and Technology, New Delhi started from 5th April 2010.
- Managed and delivered lecture on ERP and Information Security, under one Day awareness Program on Advance Technology in Information Technology at Gaya Engineering College, Gaya under TIMC Program sponsored by of DSIR, Ministry of Science and Technology, New Delhi on 18th Jan 2010.
- Managed and delivered lecture on ERP, under one Day awareness Program on Advance Technology in Information Technology at Arcade Business College, Patna under TIMC Program sponsored by of DSIR, Ministry of Science and Technology, New Delhi 20th March 2010.
- Managed and delivered lecture on ERP, under one Day awareness Program on Advance Technology in Information Technology at RP Sharma Institute of Technology, Patna under TIMC Program sponsored by of DSIR, Ministry of Science and Technology, New Delhi on 06th Feb 2010.

Books

- A book Titled “COMPUTER NETWORKS, OSI & SECURITY – Learn Yourself” is published by New Age Press, Patna ISBN: 978-81-970135-4-6.

Paper Publication, Articles, Study Materials

- Paper published on "A Study on Water Quality Monitoring using IoT sensors and Cloud Computing.", International Journal of Emerging Technologies and Innovative Research (www.jetir.org), ISSN:2349-5162, Vol.11, Issue 2, page no.g385-g387, March-2024, Available :<http://www.jetir.org/papers/JETIR2402649.pdf>

- ☒ Paper "Revolutionizing Governance: The Evolution of Government-to-Citizen (G2C), E-Governance Initiatives & Technology" Published in "INTERNATIONAL JOURNAL FOR INNOVATIVE RESEARCH IN MULTIDISCIPLINARY FIELD" (IJIRMF) Volume - 10, Issue - 3, March – 2024. DOIs:10.2015/IJIRMF/202403035 Paper titled "Analytical exploration of integration of AI in Information Systems" published in International Journal of Scientific Research in Engineering and Management (IJSREM) Volume: 08 Issue: 03 | March – 2024, ISSN: 2582-3930 Paper Published titled "Predictive Analytics: Proactive Approach To Combat Fraud And Cyber Attacks", in International Journal of Emerging Technologies and Innovative Research (www.jetir.org), ISSN:2349-5162, Vol.6, Issue 6, page no.88-90, June 2019, UGC approved, DOI doi.org/10.5281/zenodo.10836707.

Paper Presentation

- ☒ Paper Presented on "Revolutionizing Governance: The Evolution of Government-to-Citizen (G2C), E-Governance Initiatives & Technology" in 29th International Research conference – 2024 held at J D Women's College, Patna on 15th March 2024.
- ☒ Paper Presentation on "Exploring Potential of E- Governance in Women's Empowerment with special reference to state of Bihar" in 2nd International Conference on Women in Multifaceted Research held at Gopal Narayan Singh University on 11-12 March 2024.
- ☒ Paper Presentation on "Recent Development in Wireless Technology and its AI Merger" in international conference "Exploring Innovative Research Methodologies in a Variety of Multidisciplinary Fields and Their Prospective Future Impact" Jointly Organized by Department of Mechanical Engineering, Managalayatan University Aligarh & AIRO Journals, on 25th & 26th Feb 2024.
- ☒ Paper presented on Analytical Role of IoT in Smart Agriculture and Water Management in International seminar on Digitization of Human Society: Innovations, Hurdles and Prospects on 6th May 2023 at St. Xavier's College of Management & Technology, Patna.
- ☒ Paper presented on Analytical Exploration to Smart Water Management, Treatment & Sustainability using IoT for riverbank Cities in International seminar on Digitization of Human Society: Innovations, Hurdles and Prospects on 6th May 2023 at St. Xavier's College of Management & Technology, Patna.
- ☒ Paper presented on "Interdisciplinary Innovations in Higher Education Institution by shared pool of research facility to support R & D using Ubiquitous Computing" in 7th Bihar Science Conference 2019 held at College of Commerce, Arts & Science, Patna, Bihar.

Awards & Achievements

- ☒ Awarded as Technology Innovation & Management Leadership Award under 13th South Asian Excellence Awards, 2017 by GLOBAL Leaders Foundation at INDO- BHUTAN FRIENDSHIP SUMMIT, Thimpu, Bhutan.
- ☒ Appreciated for actively participation as Student Coordinator in "Kona Kona Shiksha" program conducted by National Institute of Securities Markets (NISM) under aegis of Kotak Securities Ltd on 24 December 2022.

□□□Appreciated for actively participation as Anchor Faculty in "Kona Kona Shiksha" program conducted by National Institute of Securities Markets (NISM) under aegis of Kotak Securities Ltd on 24 December 2022.

- ☒ Awarded as Digital Education Promotion Excellence Award in National Seminar of Economic Growth Society of India at New Delhi.
- ☒ Region Top (Bihar, Jharkhand, Odisha, UP) in the DCSM examination by NIELIT, Gorakhpur (Erstwhile Centre for Electronics Design & Technology of India).

As Reviewer

- ☒ Active Review Team member of "International Journal of Emerging Technologies and Innovative Research" (www.jetir.org), ISSN:2349-5162.

Affiliations & Memberships

- ☒ Member of "Internet Society" Member Id: 2305159.
- ☒ Member of International Association of Engineers (IAENG) ID 175618 since Jan 2018.
- ☒ Member of Institute for Systems and Technologies of Information, Control and Communication (INSTICC) Member ID 16680 since March 2019.
- ☒ Member (Basic) of Computer Science Teachers Association (CSTA) Member ID 198358016682 since May 2023.

Other Academic Responsibilities

- ☒ Appointed as External for MCA Practical & Project Viva Examination in B D College, Patna.
- ☒ Appointed as External for BCA Practical & Project Viva Examination in Chankya Group of Institutions, Koilwar, Patna.
- ☒ Appointed as External for BCA Practical & Project Viva Examination in Arcade Business College, Patna.
- ☒ Appointed as External for BCA Practical & Project Viva Examination in ANS College, Barh.
- ☒ Appointed as External for BCA & BSc IT Practical & Project Viva Examination in G J College, Rambag, Bihta.
- ☒ Appointed as External for MCA & BCA Practical Examination in B S College, Danapur.
- ☒ Appointed as External for MCA & BCA Practical Examination in Government Women's College, Gulzarbag, Patna.
- ☒ Member of two persons central recruitment committee for Centralized Recruitment of PGT and FCFA at Jawahar Navodaya Vidyalaya, Bikram, Patna.
Set Question Papers for BCA, BSc IT & MCA for different Universities.

Professional Qualification

- ☒ ABAP/4 Programming (SAP Tech module)
- ☒ CSSA from DOEACC Gorakhpur

Others

- ☒ CST (CDAC, Mumbai) qualified.
- ☒ Chief Advisor at Shiksha.com

SKILLS Known

ERP	Sound Knowledge of ERP Product (SAP AG)
O/S	WINDOWS Family, UNIX, LINUX
Networking	WINDOWS Family
Language	C, C++, JAVA, ABAP/4(SAP)
Internet Tech.	HTML, JSP, PHP
OOPS Modeling	UML (Business Modeling)
DBMS	ORACLE, MySQL

EDUCATIONAL QUALIFICATIONS

Degree/Certificate	Institute/ University	%age	Grade
Matriculation	BSEB, Patna	56.4	2ndDiv
Intermediate	BIEC, Patna	63.33	1stDiv
BCA	IGNOU, New Delhi	64.33	1stDiv
MCA	IGNOU, New Delhi	68.00	1stDiv
M Tech IT	KSOU, Mysore	76.00	1st Div
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(AMITESH KUMAR)

Date: 16-11-2024

Signature

DECLARATION

I hereby declare that the project work entitled "**Sweet Shop Management**" submitted to College of commerce Arts & Science , Patna is a record of original work carried out by me under the guidance of Mr. **Khurshid Alam Sir(Visual Basic)**, **Mr. Amitesh Kumar Sir(DBMS)** and **Mr. Ayan Mukharjee**, Head of the Department of Bachelor of Computer Science.

This project has been developed as a part of the partial fulfillment of the requirements for the award of the Bachelor in Computer Applications (BCA) degree. The results and findings embodied in this work have not been submitted to any other university or institute for the award of any degree.

Name :-

Date:-

INTRODUCTION

The Sweet Shop Management System is a simple yet effective software built using Visual Basic 6.0 to manage the daily operations of a sweet shop. It helps the shopkeeper handle customers, keep track of stock, record sales, and generate bills without the need for registers or manual calculation. Everything from product entry to customer dues is managed through easy-to-use forms, making the system approachable even for users with minimal computer knowledge.

By replacing traditional handwritten processes, the system brings order and accuracy into everyday work. It saves time, avoids mistakes in billing or stock records, and keeps all important data safely stored in a database. With clear reports and automatic updates, the shop owner gains a better overview of the business and can focus more on running the shop rather than paperwork.

To overcome these challenges, our Sweet Shop Management System provides an automated solution that streamlines day-to-day operations. The system enables shop owners to:

- Manage customer information and purchase history with ease.
- Handle product and raw material inventory efficiently.
- Record sales with GST calculation and track dues and advance payments.
- Monitor daily and monthly income through detailed reports.
- Maintain supplier details and production processes from raw material to finished sweets.

This software reduces manual errors, ensures better data handling, and enhances the overall efficiency of shop management, making operations smoother and more reliable.

OBJECTIVE OF PROPOSED SYSTEM

The Sweet Shop Management System is developed to assist shopkeepers in efficiently managing daily business tasks such as customer records, product inventory, sales tracking, and billing. The key objectives of the proposed system are:

1. Efficient Customer and Sales Management – Helps shop owners manage customer information, record purchases, and track dues and advances with clarity.
2. Optimized Inventory Control – Maintains stock levels of both finished products and raw materials, ensuring timely restocking and avoiding shortages.
3. Real-time Monitoring – Provides an interface to monitor sales, payments, dues, and inventory status instantly, aiding in better day-to-day decision-making.

4. Automated Report Generation – Generates daily and monthly sales reports, dues reports, and inventory summaries that support financial and operational planning.

5. Transparency & Accuracy – Reduces manual errors by automating calculations like GST, totals, and stock updates, ensuring precise records.

6. Performance Tracking – Tracks production and sales trends, helping analyze business performance and support informed business expansion.

Thus, the Sweet Shop Management System reduces workload, increases accuracy, and brings clarity to the operations of a traditional sweet shop.

COMPONENTS OF THE SYSTEM

(a) Admin

The Admin manages all operations of the sweet shop including handling customer details, inventory of sweets and raw materials, billing, and sales tracking. The admin can add new products, manage purchases and sales, update stock levels, and generate financial reports.

(b) Product & Inventory Management

This module ensures accurate stock handling and timely replenishment. It includes:

- Adding new products with cost and selling rates.
- Managing raw material inventory required for sweet preparation.
 - Updating stock automatically after sales or production entries.

(c) Production System

Products are created using raw materials and added to the stock. The system supports:

- Inputting raw material usage for each batch of sweets.
- Automatic deduction of raw materials and addition to product stock.
- Monitoring stock levels to plan future production.

(d) Financial Management

- Sales Tracking – Maintains records of all customer sales including GST, discounts, and payment methods.
- Expense Recording – Captures costs such as raw material purchases and other operational expenses.
- Profit Calculation – Calculates shop profit by comparing total sales with production and operational costs.

(e) Reports & Analytics

The system generates useful reports for analysis and planning:

- Daily and monthly sales reports.
- Customer dues and payment summaries.
- Stock and raw material status reports.

The Sweet Shop Management System streamlines operations, improves accuracy, and provides a centralized control system for efficient sweet shop management.

TECHNOLOGIES & SOFTWARE USED

Programming Language

- Visual Basic 6.0 (VB6.0): Used to design all forms, process inputs, handle backend logic, and control user flow across modules like billing, inventory, and sales.

Database Management System

- MS Access: Stores product details, customer records, stock levels, sales data, and supplier information. Chosen for its simplicity and ease of integration with VB6.

Database Connectivity

- ADO (ActiveX Data Objects): Used to connect VB6 forms with the MS Access database, enabling data insertion, retrieval, and updates.

Operating System

- Windows OS: The software is developed and tested on Windows platforms, fully compatible with older systems often used in shops.

Other Tools & Technologies

- SQL Queries: Core CRUD operations like adding products, updating stock, retrieving sales history, and managing customer dues.
- Crystal Reports / DataGridView in VB6: Used for report generation and tabular data visualization on forms.

The blend of VB6 and MS Access offers a responsive, low-resource solution ideal for small businesses needing local, form-based inventory and billing automation.

SOFTWARE REQUIREMENTS SPECIFICATION (SRS)

1. Introduction

1.1 Purpose

This document outlines the software requirements for the Sweet Shop Management System. The system is developed to assist sweet shop owners in managing their daily operations, including customer handling, sales tracking, inventory updates, and billing, to reduce manual effort and increase accuracy.

1.2 Scope

The system provides modules to:

- Track inventory of raw materials and finished sweets.
- Record and process customer orders and sales.
- Manage supplier data and production inputs.
- Monitor daily revenue, dues, and advance payments.
- Generate sales and inventory reports.
- Secure data with proper record validation.

1.3 Definitions, Acronyms, and Abbreviations

- VB6.0 – Visual Basic 6.0: Development environment used.
- MS Access – Microsoft Access: Backend database used for storing application data.
- ADO – ActiveX Data Objects: Used for establishing connectivity between VB6 and the database.
- GUI – Graphical User Interface: Visual interface for user interaction.
- SRS – Software Requirements Specification.

1.4 Overview

This document elaborates on functional, technical, and user-level requirements for the Sweet Shop Management System. It serves as a guide for development, testing, and deployment of the application within a local retail context.

2. Functional Requirements

2.1 User Authentication

- Only authorized staff can log in using username and password.
 - Prevents unauthorized access to sales and inventory data.

2.2 Inventory Management

- Admin can add/edit sweet items and raw materials.
 - Tracks stock levels of ingredients and finished products.
 - Alerts when items fall below threshold levels.

2.3 Sales & Billing Management

- Operators can create new bills for walk-in customers.
 - Supports multiple items per bill and auto-calculates totals.
 - Generates daily sales records and customer receipts.

2.4 Expense & Income Tracking

- Logs daily income from sales.
- Records expenses (raw materials, electricity, packaging, labor).
- Calculates net profit = sales income – total expenses.

2.5 Reports & Analytics

- Generates daily, monthly financial summaries.
- Item-wise sales analysis and stock consumption reports.
- Supports data export for accounting purposes.

3. Non-Functional Requirements

3.1 Performance

- Sales transactions processed in under 2 seconds.
- Real-time inventory and report generation.

3.2 Security

- Password-protected access with role-based permissions.
- Data stored securely with restricted editing rights.

3.3 Usability

- GUI tailored for quick use in a shop environment.
- Minimal steps to complete sales and inventory updates.

4. System Design & Constraints

4.1 Hardware

- Intel i3+, 4GB RAM, 20GB storage, Windows 7/10/11

4.2 Software

- Visual Basic 6.0 (Frontend)
- Oracle/MS Access Database (Backend)
- ADO for database communication

4.3 Constraints

- Offline Windows-based deployment only.
- No web or mobile interface supported.

5. Assumptions & Dependencies (Sweet Shop Version)

- Users have basic proficiency in operating Windows-based retail software.
- If a remote database is used (e.g., central Oracle server), stable internet is required.
- Data entries must be valid and logical (e.g., no negative prices or inventory quantities).

This SRS document provides a foundation for developing the **Sweet Shop Management System**, ensuring accurate alignment of technical implementation with operational requirements like sales, inventory, expense tracking, and profit analysis.

DEVELOPMENT TIMELINE: SWEET SHOP MANAGEMENT SYSTEM

The timeline below outlines the stages of development for the Sweet Shop Management System created using Visual Basic 6.0.

Week 1: Planning and Requirement Analysis

- Identified the business requirements of a local sweet shop.
- Finalized modules: Customer, Product, Inventory, Sales, Billing, Reports.
- Decided technology stack: VB6 with MS Access backend.
- Created rough sketches of UI forms.

Week 2: Database Design and Connectivity

- Created normalized database schema using MS Access.
- Tables finalized: customer, product, raw_material, sup_det, pro_master, sales, sales_details.
- Established ADO connection module for VB6.
- Tested basic SQL queries for all CRUD operations.

Week 3: UI Form Development – Basic Modules

- Designed Customer Entry Form with add/edit/delete/search.
- Developed Product Entry Form with pricing and stock.
- Completed Raw Material and Supplier Details Forms.

Week 4: Sales and Billing Module

- Created Invoice Form with ComboBox population for product IDs.
- Implemented GST calculations and net amount.
- Linked billing form to update stock quantities.
- Set up method-of-payment and due balance features.

Week 5: Production and Inventory Management

- Developed production entry form using raw materials.
- Automated deduction of raw stock during production.
- Updated product stock based on production output.

Week 6: Reporting and Print Preview

- Generated daily sales reports with total and dues.
- Added monthly report filters.
- Connected forms with DataGrid for record viewing.

Week 7: Testing and Bug Fixing

- Manual data entry tests across modules.
- Verified sales updates product and customer dues.
- Fixed issues related to ComboBox duplication and null entries.

Week 8: Documentation and Final Packaging

- Prepared project report and SRS based on system.
- Captured screenshots of UI and added DFDs.
- Final packaging of .vbp project file with .mdb database.

This timeline served to maintain focus during the 2-month development phase and ensured systematic progress from ideation to completion.

DFD, FLOWCHART & ER DIAGRAM

Data Flow Diagram (DFD) – Visual representation of how data moves within the system.

Flowchart – Step-by-step process flow for key functionalities like login, seat booking, and expense tracking.

Entity-Relationship (ER) Diagram – Database relationships for entities like Users, Seats, Reservations, Income, etc.



Data Flow Diagram (DFD) – Level 1

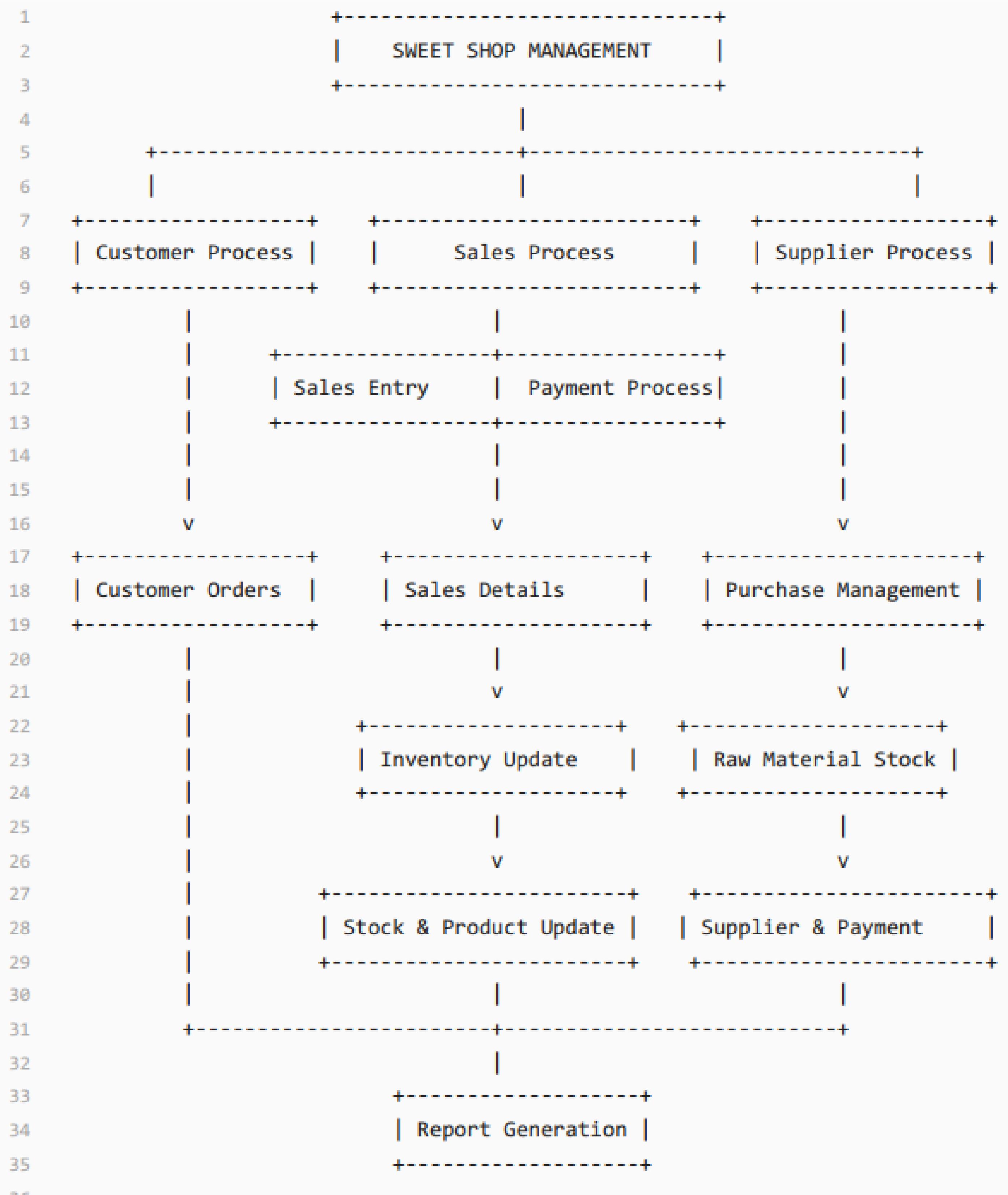
1. User Login → Authenticates owner/staff, grants access.
2. Sales Processing → Selects customer, product; computes invoice & updates stock.
3. Production Entry → Deducts raw materials, adds finished product to stock.
4. Inventory Management → Tracks product/raw material stock levels.
5. Expense & Income Management → Records utilities, rent, production cost; tracks sales revenue.
6. Report Generation → Monthly, daily sales, dues, and profit analysis.

📌 Flowchart – Sales/Billing Process

- 1 User selects customer from dropdown.
- 2 System lists available products.
- 3 User selects products & quantities.
- 4 System calculates GST & total.
- 5 On confirmation, stock updates & invoice is generated.
- 6 Payment mode selected → balance due updated.

📌 ER Diagram – Sweet Shop Management System

- Customer → (1:M) Sales
- Sales → (1:M) Sales_Details
- Sales_Details → (M:1) Product
- Product → (M:1) Raw_Material (via production)
- Supplier → (M:1) Raw_Material
- Raw_Material & Product → inventory quantities
- Expenses & Sales → used in Profit Report



DATABASE SCHEMA & TABLE DESCRIPTIONS

```
CREATE TABLE CUSTOMER (
    CUS_ID VARCHAR2(10),
    CUS_NAME VARCHAR2(20),
    ADDR VARCHAR2(20),
    PHONE_NO NUMBER(12),
    CUS_BAL NUMBER(9,2)
);
```

```
CREATE TABLE PRODUCT (
    PRO_ID VARCHAR2(10),
    PRO_NAME VARCHAR2(25),
    PRO_TYPE VARCHAR2(25),
    MFG_RATE NUMBER(7,2),
    PRO_SELL_RATE NUMBER(7,2),
    STOCK_QTY NUMBER(7)
);
```

```
CREATE TABLE RAW_MATERIAL (
    RAW_ID VARCHAR2(12),
    NAME VARCHAR2(20),
    COMPANY_NAME VARCHAR2(20),
    TYPE VARCHAR2(20),
    UNIT VARCHAR2(20),
    SIZE NUMBER(5),
    RATE NUMBER(10),
    STOCK_QTY NUMBER(7)
);
```

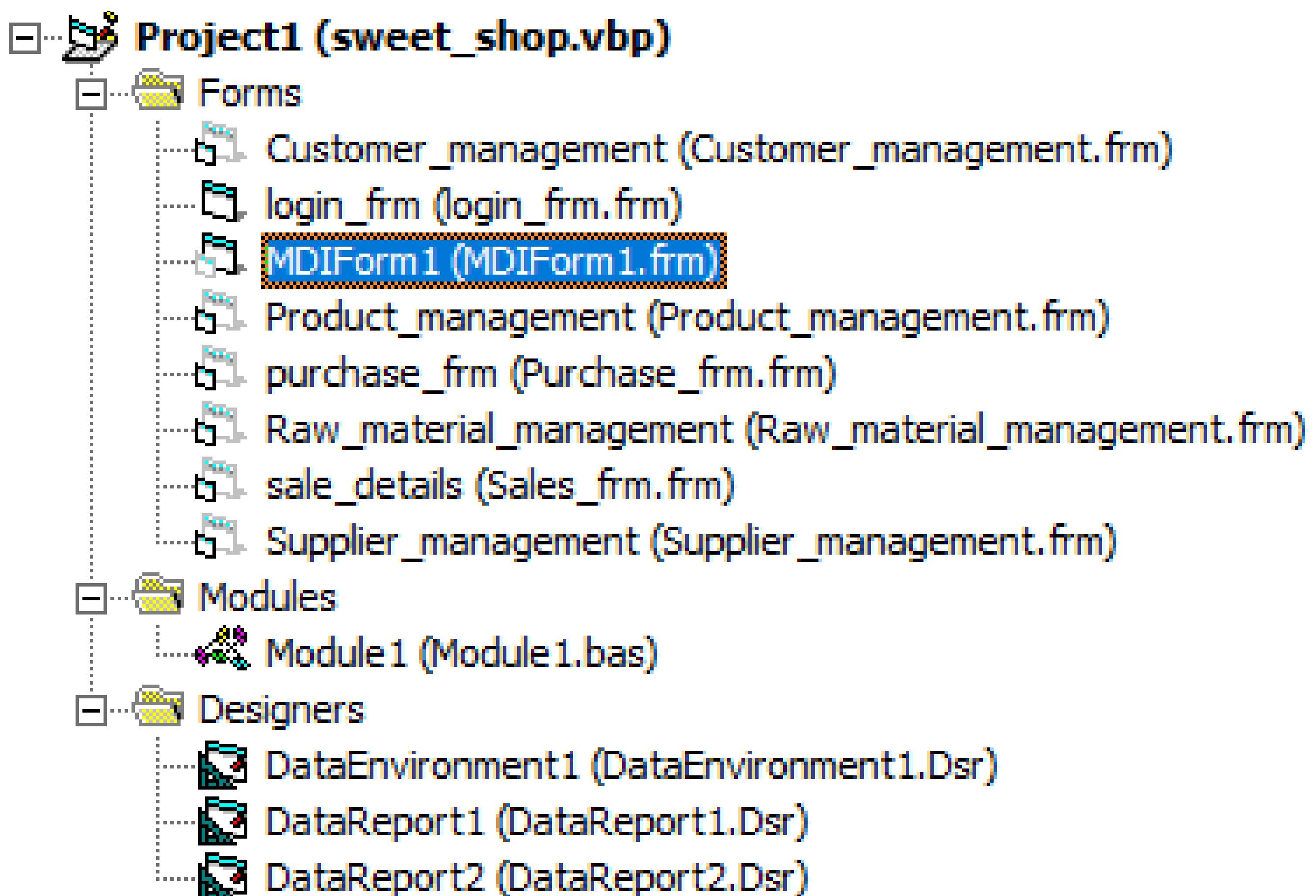
```
CREATE TABLE PRO_MASTER(
    ORDER_NO VARCHAR2(25)
    ORDER_DATE VARCHAR2(20)
    SUPP_ID VARCHAR2(10)
    METHOD_OF_PAYMENT VARCHAR2(10)
    ADVANCE NUMBER(15,2)
    DUES NUMBER(15,2)
    NET_AMT NUMBER(15,2)
);
```

```
CREATE TABLE SALES (
    INV_NO VARCHAR2(10)
    CUS_ID VARCHAR2(10)
    SALE_DATE VARCHAR2(20)
    METHOD_OF_PAYMENT VARCHAR2(10)
    ADV NUMBER(15,6)
    NET_AMT NUMBER(15,6)
    TOTAL_QTY NUMBER(5)
    DUES NUMBER(15,6)
);
```

```
CREATE TABLE SALES_DETAILS(
    INV_NO VARCHAR2(10)
    PRO_ID VARCHAR2(10) PRO_NAME VARCHAR2(50)
    QTY NUMBER(5)
    RATE NUMBER(15,6)
    GST NUMBER(10,8)
    AMT NUMBER(15,6)
);
```

```
CREATE TABLE SUP_DET(
    SUP_ID VARCHAR2(20)
    NAME VARCHAR2(20)
    ADDR VARCHAR2(20)
    CONT_NO NUMBER(12)
    COMP_NAME VARCHAR2(20)
);
```

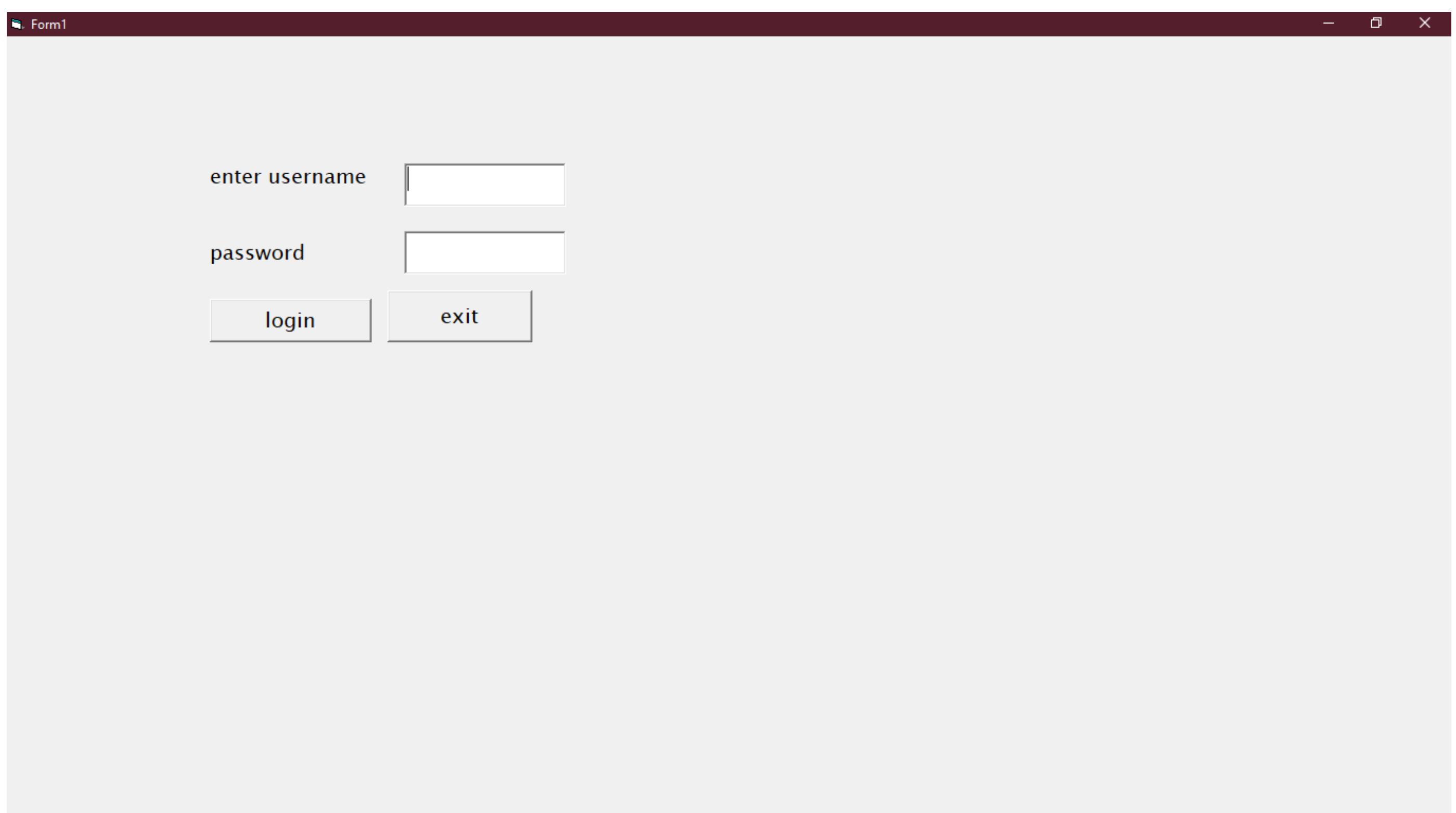
PROJECT STRUCTURE:



MODULE

```
1 Public C As ADODB.Connection  
2 Public R As ADODB.Recordset  
3 Public sql As String  
4  
5 Public Function conn()  
6     Set C = New ADODB.Connection  
7     C.Open "Provider=MSDAORA.1;User ID=muskan/kumari;Persist Security Info=true"  
8     Set R = New ADODB.Recordset  
9 End Function
```

LOGIN FORM



```

Private Sub Command1_Click()
    Const VALID_USERNAME As String = "muskan"
    Const VALID_PASSWORD As String = "kumari"

    ' Get input values
    Dim username As String
    Dim password As String

    username = Trim(Text1.Text)
    password = Trim(Text2.Text)

    ' Validate input
    If username = "" Or password = "" Then
        MsgBox "Please enter both username and password!", vbExclamation
        Exit Sub
    End If

    ' Check credentials
    If username = VALID_USERNAME And password = VALID_PASSWORD Then
        MsgBox "Login successful! Welcome " & username, vbInformation
        MDIForm1.Show
        Unload Me
    Else
        MsgBox "Invalid username or password!", vbCritical
        Text2.Text = "" ' Clear password field
    End If
End Sub

```

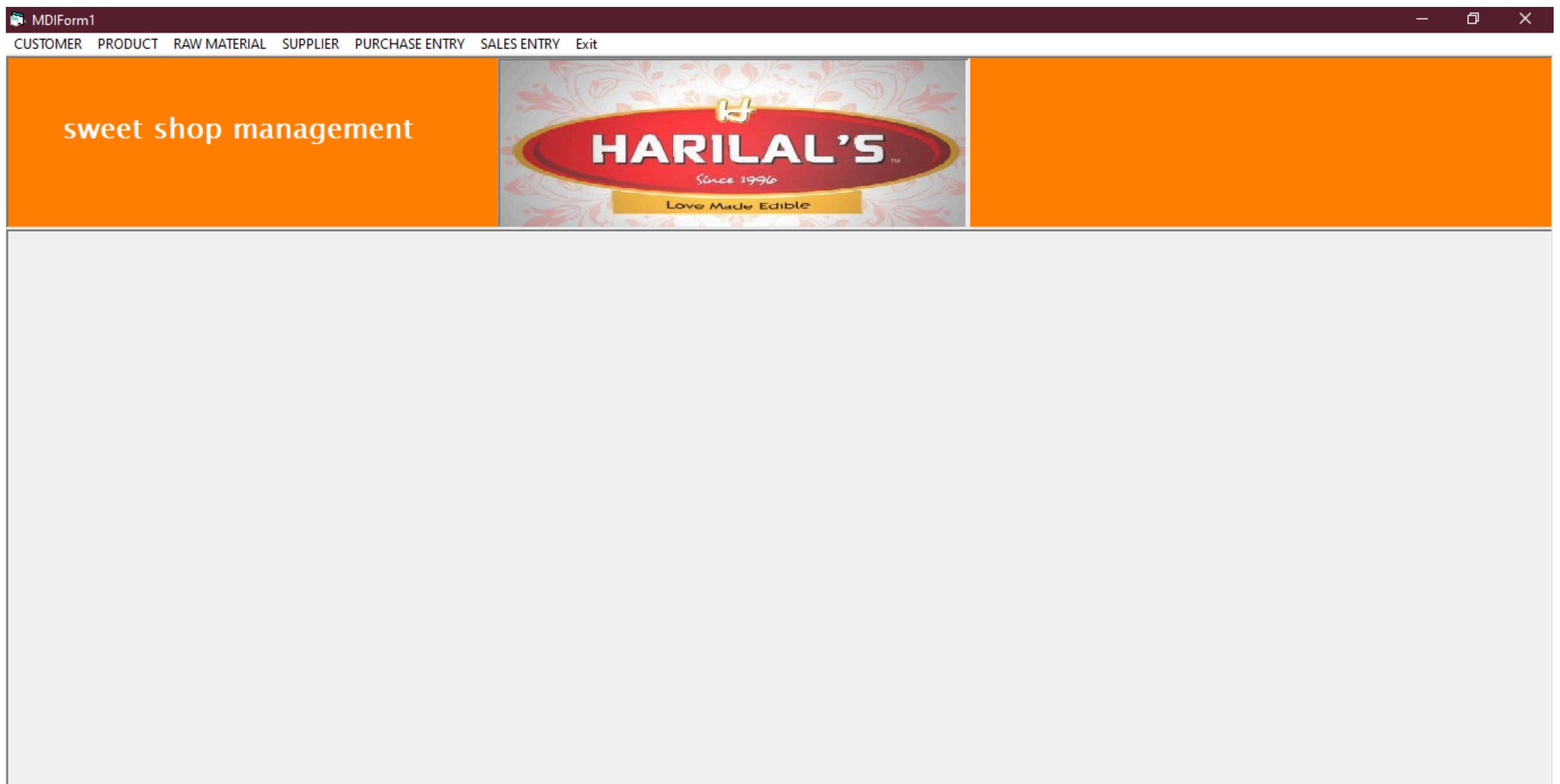
```
Private Sub Command2_Click()
    If MsgBox("Are you sure you want to exit?", vbQuestion + vbYesNo) = vbYes Then
        End
    End If
End Sub
```

' Add these events for better user experience

```
Private Sub Text1_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        Text2.SetFocus
    End If
End Sub
```

```
Private Sub Text2_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        Command1_Click
    End If
End Sub
```

MDI FORM (dashboard):



```
Private Sub CUSTOMER_Click()
Customer_management.Show
End Sub
```

```
Private Sub exits_Click()
End
End Sub
```

```
Private Sub PRODUCT_Click()
Product_management.Show
End Sub
```

```
Private Sub PURCHASE_Click()
purchase_frm.Show
End Sub
```

```
Private Sub RAW_Click()
Raw_material_management.Show
End Sub
```

```
Private Sub SALES_Click()
sale_details.Show
End Sub
```

```
Private Sub SUPPLIER_Click()
Supplier_management.Show
End Sub
```

CUSTOMER MANAGEMENT FORM

MDIForm1 - [Form1]

CUSTOMER PRODUCT RAW MATERIAL SUPPLIER PURCHASE ENTRY SALES ENTRY Exit

sweet shop management

HARILAL'S
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customer details

	CUS_ID	CUS_NAME	ADDR	PHONE_NO	CUS_BAL
►	1	mukesh	patna	883883883838	-940
	2	rahul	patna	778882989829	-242
	3	prakash	patna	7329299299	78
	4	mohan	patna	7737737729	100
	5	ram prasad	delhi	8858839938	600
	6	hariom	patna	7788291991	100

cust_id:

cust_name:

address:

phone_no:

cus_bal:

save **update** **addnew**

◀◀ Adodc1 ▶▶ **delete** **exit**

```
Private Sub Command1_Click()
sql = "insert into customer values ('" & Text1.Text
& " ', ' " & Text2.Text & " ', ' " & Text3.Text &
" ', ' " & Text4.Text & " ', " & Text5.Text & ")"
Set R = C.Execute(sql)
MsgBox "record saved", vbInformation
Adodc1.Refresh
DataGrid1.Refresh
End Sub
```

```
Private Sub Command2_Click()
Adodc1.Recordset.Delete
MsgBox "record deleted"
Adodc1.Refresh
DataGrid1.Refresh
End Sub
```

```
Private Sub Command3_Click()
Adodc1.Recordset.Update
MsgBox "record updated"
Adodc1.Refresh
DataGrid1.Refresh
End Sub
```

```
Private Sub Command4_Click()
Unload Me
End Sub
```

```
Private Sub Command5_Click()
sql = "select max(cus_id) from customer"
Set R = C.Execute(sql)
Do While Not R.EOF
Text1.Text = R.Fields(0) + 1
R.MoveNext
Loop
R.Close
Adodc1.Refresh
DataGrid1.Refresh
Text2.Text = ""
Text3.Text = ""
Text4.Text = ""
Text5.Text = ""
Text2.SetFocus
End Sub
```

```
Private Sub Form_Load()
conn
Adodc1.Refresh
DataGrid1.Refresh
End Sub
```

PRODUCT MANAGEMENT FORM

MDIForm1 - [Form1]

CUSTOMER PRODUCT RAW MATERIAL SUPPLIER PURCHASE ENTRY SALES ENTRY Exit

sweet shop management

HARILAL'S
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product details

product_id	1
product_name	rasgulla
product_type	sweet
mfg_rate	15
pro_sell_rate	30
stock_quantity	46

PRO_ID	PRO_NAME	PRO_TYPE	MFG_RATE	PRO_SELL_RATE	STOCK_QTY
1	rasgulla	sweet	15	30	46
2	rasmalai	sweet	50	80	5
3	kajukatli	sweetest	20	40	-33
4	gulab jamun	sweets	20	30	22
5	jalebi	sweet	30	60	50

add new **update**

save **delete**

exit

```

Private Sub Command1_Click()
    If Text1.Text = "" Or Text2.Text = "" Or Text3.Text
= "" Or Text4.Text = "" Or Text5.Text = "" Or
Text6.Text = "" Then
        MsgBox "Please fill all fields.",,
vbExclamation, "Input Error"
        Exit Sub
    End If

    sql = "INSERT INTO product VALUES('" & Text1.Text
& "', '" & _
        Text2.Text & "', '" & Text3.Text & "', " &
Val(Text4.Text) & ", " & _
        Val(Text5.Text) & ", " & Val(Text6.Text) & ")"

    Set R = C.Execute(sql)

    MsgBox "Record saved successfully.",,
vbInformation, "Success"
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

Private Sub Command4_Click()
Adodc1.Recordset.Delete
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

```

```
Private Sub Command2_Click()
    conn
    Adodc1.Refresh
    DataGrid1.Refresh

    Text2.SetFocus

    sql = "SELECT max(pro_id) FROM PRODUCT order by
pro_id"
    Set R = C.Execute(sql)

    Do While Not R.EOF
        Text1.Text = R.Fields(0) + 1
        R.MoveNext
    Loop

    R.Close
    Set R = Nothing
    Text2.Text = ""
    Text3.Text = ""
    Text4.Text = ""
    Text5.Text = ""
    Text6.Text = ""

End Sub
```

```
Private Sub Command3_Click()

    sql = "UPDATE product SET pro_id = '" & Text1.Text
& "' , pro_name=' " & Text2.Text & "' , pro_type=' " &
Text3.Text & "' , " & _
        "mfg_rate=" & Val(Text4.Text) & ", "
pro_sell_rate=" & Val(Text5.Text) & ", " & _
        "stock_qty=" & Val(Text6.Text) & " WHERE
pro_id= ' " & Text1.Text & "' "
    Set R = C.Execute(sql)

    MsgBox "record updated", vbInformation, "success"

    Adodc1.Refresh
    DataGrid1.Refresh
End Sub
```

```
Private Sub Command5_Click()
Unload Me
End Sub
```

```
Private Sub DataGrid1_Click()
' Load Selected Record into Textboxes
If Not (Adodc1.Recordset.EOF Or Adodc1.Recordset.BOF)
Then
    Text1.Text = Adodc1.Recordset.Fields("pro_id")
    Text2.Text = Adodc1.Recordset.Fields("pro_name")
    Text3.Text = Adodc1.Recordset.Fields("pro_type")
    Text4.Text = Adodc1.Recordset.Fields("mfg_rate")
    Text5.Text =
    Adodc1.Recordset.Fields("pro_sell_rate")
    Text6.Text = Adodc1.Recordset.Fields("stock_qty")
End If
End Sub
```

```
Private Sub Form_Load()
    conn
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub
```

```
Private Sub enterkey(keyascii As Integer, nextcontrol As Control)
    If keyascii = 13 Then
        nextcontrol.SetFocus
        keyascii = 0
    End If
End Sub
```

```
Private Sub Text1_KeyPress(keyascii As Integer)
    enterkey keyascii, Text2
End Sub
```

```
Private Sub Text2_KeyPress(keyascii As Integer)
    enterkey keyascii, Text3
End Sub
```

```
Private Sub Text3_KeyPress(keyascii As Integer)
    enterkey keyascii, Text4
End Sub
```

```
Private Sub Text4_KeyPress(keyascii As Integer)
    enterkey keyascii, Text5
End Sub
```

```
Private Sub Text5_KeyPress(keyascii As Integer)
    enterkey keyascii, Text6
End Sub
```

```
Private Sub Text6_KeyPress(keyascii As Integer)
    enterkey keyascii, Command1
End Sub
```

```
Private Sub Command1_KeyPress(keyascii As Integer)
enterkey keyascii, Command2
End Sub
```

RAW MATERIAL MANAGEMENT FORM

MDIForm1 - [Form1]

CUSTOMER PRODUCT RAW MATERIAL SUPPLIER PURCHASE ENTRY SALES ENTRY Exit

sweet shop management

HARILAL'S
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raw material management

RAW_ID	NAME	COMPANY_NAME	TYPE	UN
1	maida	xyz	flour	kg
2	white sugar	ramesh refinery	sugar	quin

raw_id:

name:

company_name:

type:

unit of measurement:

size:

rate:

stock_qty:

addnew **save:** **delete:** **update:** **exit:**

```

Private Sub Command2_Click() ' Save Button
    If Text1.Text = "" Or Text2.Text = "" Or
Text3.Text = "" Or Text4.Text = "" Or _
        Text5.Text = "" Or Text6.Text = "" Or
Text7.Text = "" Or Text8.Text = "" Then
        MsgBox "Please fill all fields.", ,
vbExclamation, "Input Error"
        Exit Sub
    End If

    sql = "INSERT INTO raw_material VALUES('' &
Text1.Text & ',', '' & _
        Text2.Text & ',', '' & Text3.Text & ',', '' &
Text4.Text & ',', '' & _
        Text5.Text & ',', '' & Text6.Text & ',', " &
Val(Text7.Text) & ", " & _
        Val(Text8.Text) & ")"
    Set R = C.Execute(sql)

    MsgBox "Record saved successfully.", ,
vbInformation, "Success"
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

```

```
Private Sub Command1_Click() ' Add New Button
conn
Adodc1.Refresh
DataGrid1.Refresh

Text2.SetFocus

sql = "SELECT count(raw_id) FROM raw_material"
Set R = C.Execute(sql)

Do While Not R.EOF
Text1.Text = R.Fields(0) + 1
R.MoveNext
Loop

R.Close
Set R = Nothing

' Clear all fields
Text2.Text = ""
Text3.Text = ""
Text4.Text = ""
Text5.Text = ""
Text6.Text = ""
Text7.Text = ""
Text8.Text = ""

End Sub
```

```

Private Sub Command3_Click() ' Delete Button
    Adodc1.Recordset.Delete
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

Private Sub Command4_Click() ' Update Button
    sql = "UPDATE raw_material SET raw_id = '" &
Text1.Text & "', name='" & Text2.Text & "', " & _
        "company_name='" & Text3.Text & "', type='"
& Text4.Text & "', " & _
        "unit_of_measurement='" & Text5.Text & "',
size=''" & Text6.Text & "', " & _
        "rate=" & Val(Text7.Text) & ", stock_qty=" &
Val(Text8.Text) & " " & _
        "WHERE raw_id=''" & Text1.Text & "'"

    Set R = C.Execute(sql)

    MsgBox "Record updated", vbInformation, "Success"

    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

```

```
Private Sub Command5_Click() ' Exit Button
    Unload Me
End Sub

Private Sub DataGrid1_Click()
    If Not (Adodc1.Recordset.EOF Or
Adodc1.Recordset.BOF) Then
        Text1.Text = Adodc1.Recordset.Fields("raw_id")
        Text2.Text = Adodc1.Recordset.Fields("name")
        Text3.Text =
Adodc1.Recordset.Fields("company_name")
        Text4.Text = Adodc1.Recordset.Fields("type")
        Text5.Text =
Adodc1.Recordset.Fields("unit_of_measurement")
        Text6.Text = Adodc1.Recordset.Fields("siz")
        Text7.Text = Adodc1.Recordset.Fields("rate")
        Text8.Text =
Adodc1.Recordset.Fields("stock_qty")
    End If
End Sub

Private Sub Form_Load()
    conn
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub
```

```
' Keyboard navigation
Private Sub enterkey(keyascii As Integer, nextcontrol As Control)
    If keyascii = 13 Then
        nextcontrol.SetFocus
        keyascii = 0
    End If
End Sub

Private Sub Text1_KeyPress(keyascii As Integer)
    enterkey keyascii, Text2
End Sub

Private Sub Text2_KeyPress(keyascii As Integer)
    enterkey keyascii, Text3
End Sub

Private Sub Text3_KeyPress(keyascii As Integer)
    enterkey keyascii, Text4
End Sub

Private Sub Text4_KeyPress(keyascii As Integer)
    enterkey keyascii, Text5
End Sub

Private Sub Text5_KeyPress(keyascii As Integer)
    enterkey keyascii, Text6
End Sub

Private Sub Text6_KeyPress(keyascii As Integer)
    enterkey keyascii, Text7
End Sub

Private Sub Text7_KeyPress(keyascii As Integer)
    enterkey keyascii, Text8
End Sub

Private Sub Text8_KeyPress(keyascii As Integer)
    enterkey keyascii, Command2
End Sub

Private Sub Command1_KeyPress(keyascii As Integer)
    enterkey keyascii, Command1
End Sub
```

RAW MATERIAL PURCHASE FORM

MDIForm1 - [Purchase - Harilal's Sweet Shop]

CUSTOMER PRODUCT RAW MATERIAL SUPPLIER PURCHASE ENTRY SALES ENTRY Exit

sweet shop management

HARILAL'S
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raw material purchase form

ORDER NO	ORDER DATE	SUPP ID	METHOD OF PAYMENT	ADVANCE	DUES	NET
0001	20250308	S001	Cash	2000	500	2500
0002	20250308	S002	Online	3000	1000	4000
0001	20250308	S001	Cash	2000	500	2500
0002	20250308	S002	Online	3000	1000	4000
► PO250317001	17-03-2025	S003	CHEQUE	200	100	2900

Order No: PO250325001

Order Date: 25-03-2025

Supplier ID:

Payment Method: CARD
CASH

Advance:

Dues:

Net Amount:

Save Exit

```

Private Sub Command2_Click() ' Save Button
    If Text1.Text = "" Or Text2.Text = "" Or Text3.Text =
    "" Or Text4.Text = "" Or _
        Text5.Text = "" Or Text6.Text = "" Or Text7.Text =
    "" Or Text8.Text = "" Then
        MsgBox "Please fill all fields.", vbExclamation,
    "Input Error"
        Exit Sub
    End If

    sql = "INSERT INTO raw_material VALUES('" & Text1.Text
& "', '" & _
        Text2.Text & "', '" & Text3.Text & "', '" &
Text4.Text & "', '" & _
        Text5.Text & "', '" & Text6.Text & "', " &
Val(Text7.Text) & ", " & _
        Val(Text8.Text) & ")"
    Set R = C.Execute(sql)

    MsgBox "Record saved successfully.", vbInformation,
"Success"
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

```

```
Private Sub Command1_Click() ' Add New Button
    conn
    Adodc1.Refresh
    DataGrid1.Refresh

    Text2.SetFocus

    sql = "SELECT count(raw_id) FROM raw_material"
    Set R = C.Execute(sql)

    Do While Not R.EOF
        Text1.Text = R.Fields(0) + 1
        R.MoveNext
    Loop

    R.Close
    Set R = Nothing

    ' Clear all fields
    Text2.Text = ""
    Text3.Text = ""
    Text4.Text = ""
    Text5.Text = ""
    Text6.Text = ""
    Text7.Text = ""
    Text8.Text = ""

End Sub
```

```
Private Sub Command3_Click() ' Delete Button
    Adodc1.Recordset.Delete
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

Private Sub Command4_Click() ' Update Button
    sql = "UPDATE raw_material SET raw_id = '" &
Text1.Text & "', name=' " & Text2.Text & "' , " & _
        "company_name=' " & Text3.Text & "' , type=' " &
Text4.Text & "' , " & _
        "unit_of_measurement=' " & Text5.Text & "' ,
size=' " & Text6.Text & "' , " & _
        "rate=" & Val(Text7.Text) & ", stock_qty=" &
Val(Text8.Text) & " " & _
        "WHERE raw_id=' " & Text1.Text & "'"

    Set R = C.Execute(sql)

    MsgBox "Record updated", vbInformation, "Success"

    Adodc1.Refresh
    DataGrid1.Refresh
End Sub
```

```

Private Sub Command5_Click() ' Exit Button
    Unload Me
End Sub

Private Sub DataGrid1_Click()
    If Not (Adodc1.Recordset.EOF Or Adodc1.Recordset.BOF)
Then
    Text1.Text = Adodc1.Recordset.Fields("raw_id")
    Text2.Text = Adodc1.Recordset.Fields("name")
    Text3.Text =
    Adodc1.Recordset.Fields("company_name")
    Text4.Text = Adodc1.Recordset.Fields("type")
    Text5.Text =
    Adodc1.Recordset.Fields("unit_of_measurement")
    Text6.Text = Adodc1.Recordset.Fields("siz")
    Text7.Text = Adodc1.Recordset.Fields("rate")
    Text8.Text = Adodc1.Recordset.Fields("stock_qty")
End If
End Sub

Private Sub Form_Load()
    conn
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

```

```
' Keyboard navigation
Private Sub enterkey(keyascii As Integer, nextcontrol As Control)
    If keyascii = 13 Then
        nextcontrol.SetFocus
        keyascii = 0
    End If
End Sub

Private Sub Text1_KeyPress(keyascii As Integer)
    enterkey keyascii, Text2
End Sub

Private Sub Text2_KeyPress(keyascii As Integer)
    enterkey keyascii, Text3
End Sub

Private Sub Text3_KeyPress(keyascii As Integer)
    enterkey keyascii, Text4
End Sub

Private Sub Text4_KeyPress(keyascii As Integer)
    enterkey keyascii, Text5
End Sub

Private Sub Text5_KeyPress(keyascii As Integer)
    enterkey keyascii, Text6
End Sub

Private Sub Text6_KeyPress(keyascii As Integer)
    enterkey keyascii, Text7
End Sub

Private Sub Text7_KeyPress(keyascii As Integer)
    enterkey keyascii, Text8
End Sub

Private Sub Text8_KeyPress(keyascii As Integer)
    enterkey keyascii, Command2
End Sub

Private Sub Command1_KeyPress(keyascii As Integer)
    enterkey keyascii, Command1
End Sub
```

SUPPLIER MANAGEMENT FORM

MDIForm1 - [Form1]

CUSTOMER PRODUCT RAW MATERIAL SUPPLIER PURCHASE ENTRY SALES ENTRY Exit

sweet shop management

HARILAL'S
Since 1996
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supplier management

sup_id:

name:

address:

contact no:

comp_name:

SUP_ID	NAME	ADDR	CONT_NO	COMP_NAME
S001	Ramesh Suppliers	Delhi	9988776655	ABC Pvt Ltd
S002	Gopal Traders	Mumbai	9876567890	XYZ Foods
1	mahesh enterprises	patna	8829191010	mahesh traders

```

Private Sub Form_Load()
    conn
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

Private Sub Command1_Click() ' Save Button
    If Text1.Text = "" Or Text2.Text = "" Or Text3.Text
= "" Or Text4.Text = "" Or Text5.Text = "" Then
        MsgBox "Please fill all fields.", vbExclamation,
"Input Error"
        Exit Sub
    End If

    ' Validate numeric fields
    If Not IsNumeric(Text4.Text) Then
        MsgBox "Contact number must be numeric.",
vbExclamation, "Input Error"
        Text4.SetFocus
        Exit Sub
    End If

    sql = "INSERT INTO sup_det VALUES('" & Text1.Text &
"', '" & _
        Text2.Text & "', '" & Text3.Text & "', " & _
        Text4.Text & ", '" & Text5.Text & "')"

    Set R = C.Execute(sql)

    MsgBox "Record saved successfully.", vbInformation,
"Success"
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

```

```

Private Sub Command2_Click() ' Update Button
    If Text1.Text = "" Or Text2.Text = "" Or Text3.Text
= "" Or Text4.Text = "" Or Text5.Text = "" Then
        MsgBox "Please fill all fields.", vbExclamation,
"Input Error"
        Exit Sub
    End If

    ' Validate numeric fields
    If Not IsNumeric(Text4.Text) Then
        MsgBox "Contact number must be numeric.", vbExclamation, "Input Error"
        Text4.SetFocus
        Exit Sub
    End If

    sql = "UPDATE sup_det SET name=' " & Text2.Text & "' ,
" & _
        "addr=' " & Text3.Text & "' , cont_no=" &
Text4.Text & ", " & _
        "comp_name=' " & Text5.Text & "' WHERE
sup_id=' " & Text1.Text & "'"

    Set R = C.Execute(sql)

    MsgBox "Record updated successfully.", vbInformation, "Success"
    Adodc1.Refresh
    DataGrid1.Refresh
End Sub

```

```
Private Sub Command3_Click() ' Delete Button
    If MsgBox("Are you sure you want to delete this
record?", vbQuestion + vbYesNo) = vbYes Then
        Adodc1.Recordset.Delete
        MsgBox "Record deleted successfully.",
vbInformation, "Success"
        Adodc1.Refresh
        DataGrid1.Refresh
    End If
End Sub
```

```
Private Sub Command4_Click() ' Add New Button
    conn
    Adodc1.Refresh
    DataGrid1.Refresh

    sql = "SELECT max(sup_id) FROM sup_det"
    Set R = C.Execute(sql)

    Do While Not R.EOF
        Text1.Text = Val(R.Fields(0)) + 1
        R.MoveNext
    Loop

    R.Close
    Set R = Nothing

    ' Clear all fields
    Text2.Text = ""
    Text3.Text = ""
    Text4.Text = ""
    Text5.Text = ""
    Text2.SetFocus
End Sub
```

```
Private Sub Command5_Click() ' Exit Button
    Unload Me
End Sub

Private Sub DataGrid1_Click()
    If Not (Adodc1.Recordset.EOF Or
Adodc1.Recordset.BOF) Then
        Text1.Text = Adodc1.Recordset.Fields("sup_id")
        Text2.Text = Adodc1.Recordset.Fields("name")
        Text3.Text = Adodc1.Recordset.Fields("addr")
        Text4.Text = Adodc1.Recordset.Fields("cont_no")
        Text5.Text =
        Adodc1.Recordset.Fields("comp_name")
    End If
End Sub

' Keyboard navigation
Private Sub enterkey(keyascii As Integer, nextcontrol As Control)
    If keyascii = 13 Then
        nextcontrol.SetFocus
        keyascii = 0
    End If
End Sub
```

```
Private Sub Text1_KeyPress(keyascii As Integer)
    enterkey keyascii, Text2
End Sub
```

```
Private Sub Text2_KeyPress(keyascii As Integer)
    enterkey keyascii, Text3
End Sub
```

```
Private Sub Text3_KeyPress(keyascii As Integer)
    enterkey keyascii, Text4
End Sub
```

```
Private Sub Text4_KeyPress(keyascii As Integer)
    enterkey keyascii, Text5
End Sub
```

```
Private Sub Text5_KeyPress(keyascii As Integer)
    enterkey keyascii, Command1
End Sub
```

```
Private Sub Command1_KeyPress(keyascii As Integer)
    enterkey keyascii, Command2
End Sub
```

SALES DETAILS FORM (INVOICE)

MDIForm1 - [Form1]

CUSTOMER PRODUCT RAW MATERIAL SUPPLIER PURCHASE ENTRY SALES ENTRY Exit

sweet shop management



Billing Form: sale details:

invoice_no	3	customer_ID:	2
pro_id:	3	method_of_payment:	Cash
pro_name:	kajukatli	advance:	50
quantity:	20	total_quantity:	2
rate:	40	dues:	70
GST:	3	NetAmount:	20
Amount:	803	date:	15-03-2025

products_bought:

INV_NO	PRO_ID	PRO_NAME	QTY	RATE	GST
3	3	kajukatli	20	40	3
1	3	kajukatli	12	40	20
► 1	2	rasmalai	10	80	40
3	3	kajukatli	20	40	3

Final_billing:

INV_NO	CUS_ID	SALE_DATE	METHOD_OF_PAYMENT
3	2	15-03-2025	Cash
1	2	15-03-2025	Online
► 1	1	17-03-2025	Online

Buttons:

- calculate netamt
- exit
- save transaction
- print invoice
- save order
- delete order
- addnew:
- update All :
- delete transaction

```

Private Sub Command2_Click()
Adodc1.Recordset.Update
Adodc2.Recordset.Update
MsgBox "record Updated", vbInformation, "success"
End Sub

Private Sub Command3_Click()
    Adodc1.Recordset.Delete
    MsgBox "Record Deleted", vbInformation, "Success"
    Adodc1.Refresh
End Sub

Private Sub Command7_Click()
    sql = "INSERT INTO sales_details (inv_no, pro_id,
pro_name, qty, rate, gst, amt) VALUES ('" &
Trim(Text1.Text) & "', '" & Trim(Combo1.Text) & "', '' &
Text11.Text & ', " & IIf(IsNumeric(Text2.Text),
Val(Text2.Text), "NULL") & ", " &
IIf(IsNumeric(Text3.Text), Val(Text3.Text), "NULL") & ",
" & IIf(IsNumeric(Text4.Text), Val(Text4.Text), "NULL")
& ", " & IIf(IsNumeric(Text5.Text), Val(Text5.Text),
"NULL") & ")"
    C.Execute sql

    ' Update stock quantity in product table
    sql = "UPDATE product SET stock_qty = stock_qty - "
& Text2.Text & " WHERE pro_id = '" & Combo1.Text & "'"
    C.Execute sql
    Adodc1.Refresh
    DataGrid1.Refresh
    MsgBox "record updated in sales_details | product-
stock ", vbInformation
End Sub

```

```
Private Sub Command5_Click()
Unload Me
End Sub
```

```
Private Sub Command6_Click()
Adodc2.Recordset.Delete
End Sub
```

```
Private Sub Command1_Click()
```

```
    ' Insert into sales table
    sql = "INSERT INTO sales (inv_no, cus_id, sale_date,
method_of_payment, adv, net_amt, total_qty, dues) VALUES
('" & Text1.Text & "', '" & Combo2.Text & "', '" &
Text9.Text & "', '" & Combo3.Text & "', " & Text6.Text &
", " & Text8.Text & ", " & Text7.Text & ", " &
Text10.Text & ")"
C.Execute sql
```

```
    ' Update customer balance (wallet system)
    sql = "UPDATE customer SET cus_bal = cus_bal - " &
Text8.Text & " WHERE cus_id = '" & Combo2.Text & "'"
C.Execute sql
```

```
    ' Refresh DataGridView
Adodc1.Refresh
DataGrid1.Refresh
```

```
    MsgBox "record updated in sales , customer",
vbInformation
```

```
End Sub
```

```

Private Sub Form_Load()
    conn
    Adodc1.Refresh
    DataGrid1.Refresh

    ' Get next invoice number
    sql = "SELECT MAX(inv_no) FROM sales_details"
    Set R = C.Execute(sql)
    If Not R.EOF And Not IsNull(R.Fields(0)) Then
        Text1.Text = Val(R.Fields(0)) + 1
    Else
        Text1.Text = 1
    End If
    R.Close

    ' Load product IDs into Combo1
    Combo1.Clear
    sql = "SELECT pro_id FROM product"
    Set R = C.Execute(sql)
    Do While Not R.EOF
        Combo1.AddItem R.Fields(0)
        R.MoveNext
    Loop
    R.Close

    ' Load customer IDs into Combo2
    Combo2.Clear
    sql = "SELECT cus_id FROM customer"
    Set R = C.Execute(sql)
    Do While Not R.EOF
        Combo2.AddItem R.Fields(0)
        R.MoveNext
    Loop
    R.Close

    ' Load payment methods into Combo3
    Combo3.AddItem "Cash"
    Combo3.AddItem "Online"
    Combo3.AddItem "Card"

    ' Set current date
    Text9.Text = Format(Date, "dd/mm/yyyy")
End Sub

```

```

Private Sub Combo2_Click()
    ' Fetch customer balance
    sql = "SELECT cus_bal FROM customer WHERE cus_id = '" &
Combo2.Text & "'"
    Set R = C.Execute(sql)

    If Not R.EOF Then
        Text6.Text = R.Fields("cus_bal").Value
    Else
        Text6.Text = "0"
    End If

    R.Close
End Sub

```

```

Private Sub Command9_Click()
    DataEnvironment1.Command2.Text1.Text
    DataReport1.Show
    DataEnvironment1.Command1.Text1.Text
    DataReport2.Show
End Sub

```

```

Private Sub Combo1_Click()
    ' Fetch product selling rate
    sql = "SELECT pro_sell_rate, pro_name FROM product WHERE
pro_id = '" & Combo1.Text & "'"
    Set R = C.Execute(sql)

    If Not R.EOF Then
        Text3.Text = R.Fields("pro_sell_rate").Value
        Text11.Text = R.Fields("pro_name").Value
    Else
        Text3.Text = "0"
    End If

    R.Close
End Sub

```

```

Private Sub Command4_Click()
    ' Clear existing items before adding new ones to prevent
    duplication
    Combo1.Clear

    ' Reload product IDs (only unique values will be added)
    sql = "SELECT DISTINCT pro_id FROM product"
    Set R = C.Execute(sql)

    Do While Not R.EOF
        Combo1.AddItem R.Fields(0).Value
        R.MoveNext
    Loop
    R.Close ' Close the recordset
    Set R = Nothing ' Free memory

    ' Clear fields
    Text2.Text = ""
    Text3.Text = ""
    Text4.Text = ""
    Text5.Text = ""
    Text6.Text = ""
    Text7.Text = ""
    Text8.Text = ""
    Text11.Text = ""

    ' Reset ComboBox selections
    Combo1.ListIndex = -1
    Combo2.ListIndex = -1
    Combo3.ListIndex = -1

    ' Restore current date
    Text9.Text = Format(Date, "dd/mm/yyyy")
End Sub

```

```
Private Sub CalculateNetAmount()
    Dim qty As Double, mrp As Double, gst As Double

    ' Convert text to numeric values safely
    qty = IIf(IsNumeric(Text2.Text), Val(Text2.Text), 0)
    mrp = IIf(IsNumeric(Text3.Text), Val(Text3.Text), 0)
    gst = IIf(IsNumeric(Text4.Text), Val(Text4.Text), 0)

    ' Perform calculation and update net amount as string
    Text5.Text = Format((qty * mrp) + gst, "0.00")
End Sub
```

```
Private Sub Text2_Change()
CalculateNetAmount
End Sub
```

```
Private Sub Text3_Change()
CalculateNetAmount
End Sub
```

```
Private Sub Text4_Change()
CalculateNetAmount
End Sub
```

```
Private Sub billingamount()
Dim adv As Double, netamt As Double, qty As Integer, dues
As Integer

qty = IIf(IsNumeric(Text7.Text), Val(Text7.Text), 0)
dues = IIf(IsNumeric(Text10.Text), Val(Text10.Text), 0)
adv = IIf(IsNumeric(Text6.Text), Val(Text6.Text), 0)

netamt = Format((dues) - adv, "0.00")
Text8.Text = netamt
End Sub
```

```
Private Sub Text6_Change()
billingamount
End Sub
```

```
Private Sub Text7_Change()
billingamount
End Sub
```

```
Private Sub Text10_Change()
billingamount
End Sub
```

```

Private Sub Command8_Click()
Dim qty As Integer
sql = "select sum(qty) from sales_details where inv_no = '" &
Text1.Text & "'"
Set R = C.Execute(sql)
Text7.Text = R.Fields(0)
qty = Text7.Text
Set R = Nothing

sql = "select sum(amt) from sales_details where inv_no = '" &
Text1.Text & "'"
Set R = C.Execute(sql)
Text10.Text = R.Fields(0)
Set R = Nothing

End Sub

```

```

Private Sub DataGrid1_Click()
    ' Load Selected Record from sales_details into Textboxes
    If Not (Adodc1.Recordset.EOF Or Adodc1.Recordset.BOF) Then
        Text1.Text = Adodc1.Recordset.Fields("inv_no")
        Combo1.Text = Adodc1.Recordset.Fields("pro_id")
        Text11.Text = Adodc1.Recordset.Fields("pro_name")
        Text2.Text =
IIf(IsNull(Adodc1.Recordset.Fields("qty")), "", ,
Adodc1.Recordset.Fields("qty"))
        Text3.Text =
IIf(IsNull(Adodc1.Recordset.Fields("rate")), "", ,
Adodc1.Recordset.Fields("rate"))
        Text4.Text =
IIf(IsNull(Adodc1.Recordset.Fields("gst")), "", ,
Adodc1.Recordset.Fields("gst"))
        Text5.Text =
IIf(IsNull(Adodc1.Recordset.Fields("amt")), "", ,
Adodc1.Recordset.Fields("amt"))
    End If
End Sub

```

```

Private Sub DataGrid2_Click()
    ' Load Selected Record from sales into Textboxes
    If Not (Adodc2.Recordset.EOF Or Adodc2.Recordset.BOF) Then
        Text1.Text = Adodc2.Recordset.Fields("inv_no")
        Combo2.Text = Adodc2.Recordset.Fields("cus_id")
        Text9.Text = Adodc2.Recordset.Fields("sale_date")
        Combo3.Text =
        Adodc2.Recordset.Fields("method_of_payment")
        Text6.Text =
        IIf(IsNull(Adodc2.Recordset.Fields("adv")), "", Adodc2.Recordset.Fields("adv"))
        Text8.Text =
        IIf(IsNull(Adodc2.Recordset.Fields("net_amt")), "", Adodc2.Recordset.Fields("net_amt"))
        Text7.Text =
        IIf(IsNull(Adodc2.Recordset.Fields("total_qty")), "", Adodc2.Recordset.Fields("total_qty"))
        Text10.Text =
        IIf(IsNull(Adodc2.Recordset.Fields("dues")), "", Adodc2.Recordset.Fields("dues"))
    End If
End Sub

```

```

Private Sub Text1_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Combo1.SetFocus
    End If
End Sub

```

```

Private Sub Combo1_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text2.SetFocus
    End If
End Sub

```

```
Private Sub Text2_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text3.SetFocus
    End If
End Sub
```

```
Private Sub Text3_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text4.SetFocus
    End If
End Sub
```

```
Private Sub Text4_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text5.SetFocus
    End If
End Sub
```

```
Private Sub Text5_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Command7.SetFocus
    End If
End Sub
```

```
Private Sub Combo2_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text9.SetFocus
    End If
End Sub
```

```
Private Sub Text9_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Combo3.SetFocus
    End If
End Sub
```

```
Private Sub Combo3_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text6.SetFocus
    End If
End Sub
```

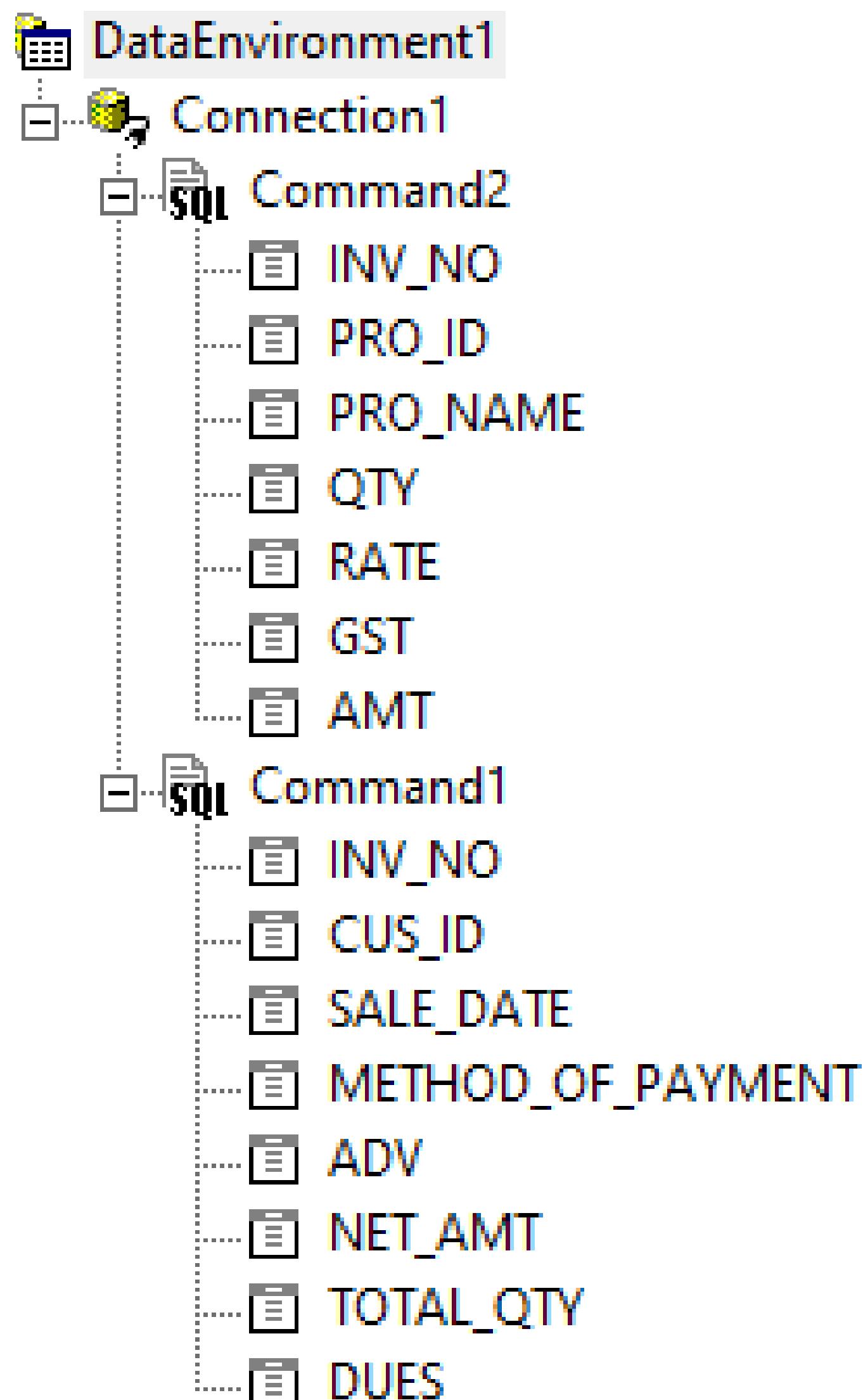
```
Private Sub Text6_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text7.SetFocus
    End If
End Sub
```

```
Private Sub Text7_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text8.SetFocus
    End If
End Sub
```

```
Private Sub Text8_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Text10.SetFocus
    End If
End Sub
```

```
Private Sub Text10_KeyPress(keyascii As Integer)
    If keyascii = 13 Then
        keyascii = 0
        Command1.SetFocus
    End If
End Sub
```

DATAENVIRONMENT



REPORT GENERATION(BILL)

The screenshot displays two overlapping windows titled "DataReport1" and "DataReport2".

DataReport1: This window shows a header "HARILAL sweets SHOP" in orange, followed by a table of product sales:

INV_NO:	PRO_ID:	PRO_NAME:	QTY:	RATE:	GST:	AMT:
3	3	kajukatli	20	40	3	803
3	3	kajukatli	20	40	3	803

DataReport2: This window shows an "INVOICE" section with the following details:

<u>INV_NO:</u>	3
<u>CUS_ID:</u>	2
<u>SALE_DATE:</u>	15-03-2025
<u>METHOD_OF_PAY:</u>	Cash
<u>ADV:</u>	50
<u>TOTAL_QTY:</u>	2
<u>DUES:</u>	70
<u>NET_AMT:</u>	20

Both windows have a "Zoom 100%" setting and a "Pages" navigation bar at the bottom.

FUTURE ENHANCEMENTS & SCOPE – SWEET SHOP MANAGEMENT SYSTEM

To enhance performance, user experience, and business intelligence, the following upgrades can be considered:

● Future Enhancements

- Web & Mobile Access – Develop responsive web and Android/iOS apps to allow order placement, inventory checks, and report access remotely.
- Online Payment Integration – Integrate UPI, card, and wallet options for direct digital payments from customers.
- Customer Notifications – Send SMS/Email alerts for order confirmation, due balance reminders, and promotional offers.
- User Roles & Portals – Create distinct dashboards for Admin, Sales Staff, and Production Team to segregate functionalities.
- Advanced Reporting – Include analytics for seasonal trends, best-selling items, and inventory turnover for strategic planning.
- Graphical Dashboard – Replace current DataGrid reports with interactive visual charts for sales, profit, and stock analysis.

- Dynamic Pricing Module – Allow real-time price adjustments based on ingredient cost fluctuation or demand.
- Automated Data Backup – Schedule daily backups of sales and inventory data to avoid loss during system failure.
- Multilingual UI – Offer the system interface in regional languages to aid non-English speaking users.
- AI Integration – Predict product demand, suggest restock levels, and identify customer purchase patterns using AI models.

● Future Scope

- ✓ Chain Management – Extend system to manage multiple outlets with centralized monitoring.
- ✓ Cloud Deployment – Migrate database and interface to cloud for real-time, cross-location usage.
- ✓ QR-Based Billing – Generate QR codes for quick billing and order verification.
- ✓ IoT in Inventory – Use smart weighing systems and RFID to auto-update stock based on real-time consumption.

Let me know if you want this in the documentation format too.

ABOUT VISUAL BASIC 6.0 (front end)

- Visual Basic is a third-generation event-driven programming language and integrated development environment (IDE) from Microsoft for its Component Object Model (COM) programming model first released in 1991 and declared legacy during 2008. Microsoft intended Visual Basic to be relatively easy to learn and use. Visual Basic was derived from BASIC, a user-friendly programming language designed for beginners, and it enables the rapid application development (RAD) of graphical user interface (GUI) applications, access to databases using Data Access Objects, Remote Data Objects, or ActiveX Data Objects, and creation of ActiveX controls and objects.
- A programmer can create an application using the components provided by the Visual Basic program itself. Over time the community of programmers developed third-party components. Programs written in Visual Basic can also use the Windows API, which requires external function declarations.

- VISUAL BASIC is a visual and events driven Programming Language. These are the main divergence from the old BASIC. In BASIC, programming is done in a text-only environment and the program is executed sequentially. In VB, programming is done in a graphical environment. It's provide the fully graphical environment for developer)
- In the old BASIC, you have to write program code for each graphical object you wish to display it on screen, including its position and its color. However, In VB, you just need to drag and drop any graphical object anywhere on the form, and you can change its color any time using the properties window.

- On the other hand, because the user may click on certain object randomly, so each object has to be programmed independently to be able to response to those actions (events). Therefore, a VB Program is made up of many subprograms, each has its own program code, and each can be executed independently and at the same time each can be linked together in one way or another(Example :Child windows and parent windows)
- ❖ Visual basic is a programming language and integrated development environment.
- ❖ It derives from the much older BASIC programming language and so is considered useful and easy programming language for the beginner learns.
- ❖ Visual Basic 6.0 was the final edition of visual Basic.

Features of visual basic 6.0

- 1. The structure of the Basic programming language is very simple, particularly as to the executable code.
- 2. VB is not only a language but primarily an integrated, interactive development environment (“IDE”).
- 3. The VB-IDE has been highly optimized to support rapid application development (“RAD”). It is particularly easy to Develop Graphical User Interfaces and to connect them to handler functions provided by the application.
- 4. The graphical user interface of the VB-IDE provides intuitively appealing views for the management of the program structure in the large and the various types of entities (classes, modules, procedures, forms,).
- 5. It is an Event Driven Programming which provides complete control to the end user.
- 6. VB is a first Programmer friendly language in the world.

- 7. VB provides a comprehensive interactive and context-sensitive online help system.
- 8. When editing program texts the “IntelliSense” technology informs you in a little popup window about the types of constructs that may be entered at the current cursor location.
- 9. Visual Basic 6.0 features provide graphical, integrated data access to any ODBC or OLE DB data source, and additional database-design tools for Oracle and Microsoft SQL Server-based databases.
- 10. New Web development features bring the easy-to-use, component based programming model of Visual Basic to the creation of HTML and Dynamic HTML (DHTML)-based applications
- 11. VB is a component integration language which is attuned to Microsoft’s Component Object Model (“COM”).
- 12. COM components can be written in different languages and then integrated using VB.

- 13. Interfaces of COM components can be easily called remotely via Distributed COM (“DCOM”), which makes it easy to construct distributed applications.
- 14. COM components can be embedded in / linked to your application’s user interface and also in/to stored documents (Object Linking and Embedding “OLE”, “Compound Documents”).
- 15. There is a wealth of readily available COM components for many different purposes.
- 16. Visual Basic is built around the .NET environment used by all Microsoft Visual languages, so there is very little that can’t be done in Visual Basic that can be done in other languages (such as C#).

- Example of visual basic

```
Private Sub Form_Load ( ) Unload me  
Load form1  
Text1.text = "This is text1" Combo1.additem  
"math's" Label1.caption= date Form1.show  
End sub
```

- Visual Basic is made of Forms -Windows that you create for user interface
- Controls - Graphical features drawn on forms to allow user interaction (text boxes, labels, scroll bars, command buttons, etc)
- (Forms and Controls are objects)

Properties - Every characteristic of a form or control is specified by a property. Example properties include names, captions, size, color, position, and contents. Visual Basic applies default properties. You can change properties at design time or run time.

Methods - Built-in procedure that can be invoked to impart some action to a particular object. Event Procedures - Code related to some object. This is the code that is executed when a certain event occurs.

General Procedures - Code not related to objects. This code must be invoked by the application. . Modules - Collection of general procedures, variable, declarations and constant definitions used by application.

Six windows appear in Visual Basic

- The Main Window
- The Form Window
- The Properties Window
- The Toolbox
- The Form Layout Window
- The Project Window
- The data environment.

1. Text box: -the text box control provides and area to enter display text sometimes. It is called edit field also most of the code we write for textboxes id to process information, user inter into them.
2. Command button: - the command button can carries out a command or action when a user pushes any button or click the mouse.
3. Label box: -the label control display text, user control interact with or modify.
4. Frame box: -the frame control provides a usual and functional container for control
5. Picture box: -the picture box control display bits map icons or windows metafiles. It displays text or acts as a visual container for other controls.
6. Check box: - The check boxes control display a true/false or yes/no option. We can check any number of check boxes on a form at run time.

7. Option button: -The option button controls are as a part of an option group with other option buttons displays multiple choices from which user can choose only one.
8. Combo box: -the combo box control combined a text box with a list box. Allow a user to type in a selection or select any time from a drop down list.
9. List box: -the list box displays a list of items that a user can choose from.
10. Horizontal & vertical scroll bars: -the horizontal and vertical scroll bars allow a user to select a value within a range of values.

About oracle – 11g (back end)

Oracle Database 11g Database Server describes the most recent major version of the Oracle Relational Database Management System (RDBMS) family of products that share common source code.

This family includes:

Personal Oracle, a database for single users that's often used to develop code for implementation on other Oracle multiuser databases Oracle Standard Edition, which was named Workgroup Server in its first iteration as part of the Oracle7 family and is sometimes simply referred to as Oracle Server Oracle Enterprise Edition, which includes all Standard Edition functionality and additional functionality Oracle Lite, used primarily for mobile applications.

Oracle8 was introduced in 1997 with larger size limitations and management features, such as partitioning, aimed at very large database implementations. In 1998, Oracle announced Oracle8i, which is sometimes referred to as Version 8.1 of the Oracle8 database. This was added to denote added functionality supporting Internet deployment in the new version.

Oracle9i followed, with Application Server available in 2000 and Database Server in 2001. Oracle Database 10g was introduced in 2003; the g denotes Oracle's focus on emerging grid deployment models. The terms Oracle, Oracle8, Oracle8i, Oracle9i and Oracle Database 10g (or Oracle10g) might appear to be used somewhat interchangeably in this book, because Oracle Database 10g includes all the features of previous versions. When we describe a new feature that was first made available specifically in certain releases, we've tried to note that fact to avoid confusion, recognizing that many of you may have old releases of Oracle. We typically use the simple term Oracle when describing features that are common to all these Releases. Oracle has focused development around a single source code model since 1983. An Oracle database is a collection of data treated as a unit. The purpose of a database is to store and retrieve related information. A database server is the key to solving the problems of information management. In general, a server reliably manages a large amount of data in a multiuser environment so that many users can concurrently access the same data. All this is accomplished while delivering high performance.

A database server also prevents unauthorized access and provides efficient solutions for failure recovery.

Oracle Database is the first database designed for enterprise grid computing, the most flexible and cost effective way to manage information and applications.

Enterprise grid computing creates large pools of industry-standard, modular storage and servers. With this architecture, each new system can be rapidly provisioned from the pool of components. There is no need for peak workloads, because capacity can be easily added or reallocated from the resource pools as needed.

The database has logical structures and physical structures. Because the physical and logical structures are separate, the physical storage of data can be managed without affecting the access to logical storage structures

Oracle Database Features

- Scalability and Performance Features
- Manageability Features
- Database Backup and Recovery Features
- High Availability Features
- Business Intelligence Features
- Content Managements Features
- Security Features
- Data Integrity and Triggers
- Information Integration Features

While each database implementation includes some operating system- specific source code at very low levels in order to better leverage specific platforms, the interfaces that users, developers, and administrators deal with for each version are consistent. Because features are consistent across platforms for implementations of Oracle Standard Edition and Oracle Enterprise Edition, companies can migrate. Oracle applications easily to various hardware vendors and operating systems while leveraging their investments in Oracle technology.

This development strategy also enables Oracle to focus on implementing new features only once in its product set, instead of having to add functionality at different times to different implementations.

TOOLS OF ORACLE

All the tools are so user's friendly that a person with minimum skills in the field of computers can access them with ease.

They are as follows:-

- SQL *PLUS
- PL / SQL
- ORACLE DBA
- ORACLE FORMS
- REPORTS WRITER
- ORACLE GRAPHICS