

Project Report

Order Management System

Submitted By:

**Kalp Bhavsar
Malay Shah
Nrupal Gianchandani**

Group No. 04

Bachelor of Computer Application (Sem - VI)



Submitted to:

DNV International Education Academy
Plot No-3 , Ward 9/A Gandhidham - Kachchh.



Acknowledgement

We are grateful for the opportunity to be part of a learning experience at DNV International Educational Academy, in collaboration with KSKV Kachchh University. Working with dedicated computer teachers made this journey even more valuable.

Our project was significantly enhanced by Mrs. Reena Guha's & Mrs. Sima Moradiya's consistent provision of support and guidance, which proved to be a valuable resource for our learning and developmental progress.

We would also like to express our gratitude to all our professors, who have been instrumental in broadening our knowledge and enhancing our skills. The lessons learned under their guidance will continue to benefit us far beyond this project.

This project has been an incredible learning experience, and we are truly thankful to everyone who played a role in it.



BACHELOR OF COMPUTER APPLICATION

Certificate

This is to certify that **Nrupal Gianchandani(22BCA15), Kalp Bhavsar(22BCA05), Malay Shah(22BCA46)** has satisfactorily completed their project work entitled Order Management System as a fulfillment of the requirements, during the academic Year 2024-2025.

Date:

Place:

Prof : Mrs. Reena Guha
BCA , DNV INTERNATIONAL
EDUCATION ACADEMY

Prof : Mrs. Sima Moradiya
BCA , DNV INTERNATIONAL
EDUCATION ACADEMY

Preface

It Is Trace That Study Cannot Be Perfect Without Study Of Practical Training And Perfection. It Is A Basic Necessity Of A Technical Student. Technical Knowledge Is Like A Coin. It Has Got Two Sides, One Is Theoretical Knowledge And Other Is Practical Knowledge Is More Important And It Is Known That “Practice Makes A Man Perfect”.

In A Practical Training Person Deals With Many Technical Problems, Real Pertain and Processes. Another Aim Of Implant Training Is To Learn Industrial Management And Discipline. To Keep India On Hi-Tech Map, Almost All Universities Have Well Planned Approaches In Imparting Training In The Field Of Computer Science. All India Now Need Regularly Highly Trained Computer Scientists.

This Is 6th Semester BCA During Which Students Are Trained In Web Application Development Of Computer Science. Along With Different Computer Languages & Technologies. Topics Such As Service Oriented Architecture, Smart Devices Computing And Wireless Technologies Are Covered In Course.

We Have Taken Up The Project Of Order Management System



DNV INTERNATIONAL EDUCATION ACADEMY



To:
Head of Computer Department
DNV International Education Academy
Gandhidham-Kutch

Subject: Acceptance of Project Training Request

Ref: Your Letter DNV/2024-25/96 dated 23rd December 2024

Dear Sir/Madam,

This letter is to acknowledge the receipt of your letter dated 23rd December 2024 requesting permission for project training for three BCA students from 18th December 2024 to 25th March 2025. We are pleased to inform you that we accept your request and are happy to provide training opportunities to the following students:

- Gianchandani Nrupal Sunil
- Bhavsar Kalp Jayesh
- Shah Malay Harshad

We understand the importance of industry-institute interaction and believe that this project training will be mutually beneficial. We will provide the students with the necessary guidance and support to ensure a successful learning experience.

We look forward to welcoming the students to our organization and working with them on their project.

Sincerely,

Shah Bhogilal Bhuralal Sons
Gandhidham-Kutch

📍 PLOT NO. 04, FIRST FLOOR, OFFICE NO.01
WARD 12B,Gandhidham-370205
📞 79900-55433
✉️ shahbhogilalbhuralalsons@gmail.com





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1. Introduction



1.1 Introduction

- **Project Overview** – A digital Order Management System (OMS) to streamline order processing, stock management, and sales tracking.
- **User Roles** – Salesmen can manage orders and customers, while admins handle billing, stock, and analytics.
- **Salesman Features:**
 - Create and manage orders.
 - View stock and customer lists.
 - Add new customers.
- **Admin Features:**
 - Generate auto PDF bills and send via email.
 - Manage stock levels and salesmen.
 - View sales analytics and reports.
- **Stock & Inventory Management** – Real-time stock updates prevent shortages and overstocking.
- **Sales Insights & Analytics** – Helps admins make data-driven business decisions.



1.2 Key Objective

- **Digital Order Processing**

Simplifies bulk ordering with a seamless online system.

- **Real-Time Stock Updates**

Instantly reflects inventory changes to prevent stockouts.

- **Sales Tracking**

Monitors orders, revenue, and customer trends for better decision-making.

- **Automated Bill Generation**

Creates invoices instantly, reducing manual effort.

- **Email Notifications**

Keeps customers updated on order status, invoices, and stock alerts.



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2 . Proposed System



2.1 Project Profile

Project Title	Order Management System
Project Definition	It is a digital platform where salesmen create orders and manage customers while the admin handles inventory, generates invoices, and analyses sales data for better decision-making.
Team Members	3
Team Member's Name	<ul style="list-style-type: none">• Kalp Bhavsar• Malay Shah• Nrupal Gianchandani
Time Duration	~ 10 - 12 Weeks

2.2 Advantages and Limitations

Advantages	Limitation
<ul style="list-style-type: none">• Reduces manual work• Improves efficiency• Automated billing• Gives sales Insights	<ul style="list-style-type: none">• Internet Dependency• No data backup• Security Risks



2.3 User Profile

Admin	<ul style="list-style-type: none">● Manage stock & salesmen● Generate bills (Auto PDF & Email)● View sales analytics
Salesman	<ul style="list-style-type: none">● View stock & customer list● Add new customers● Create orders

2.4 Technical Details

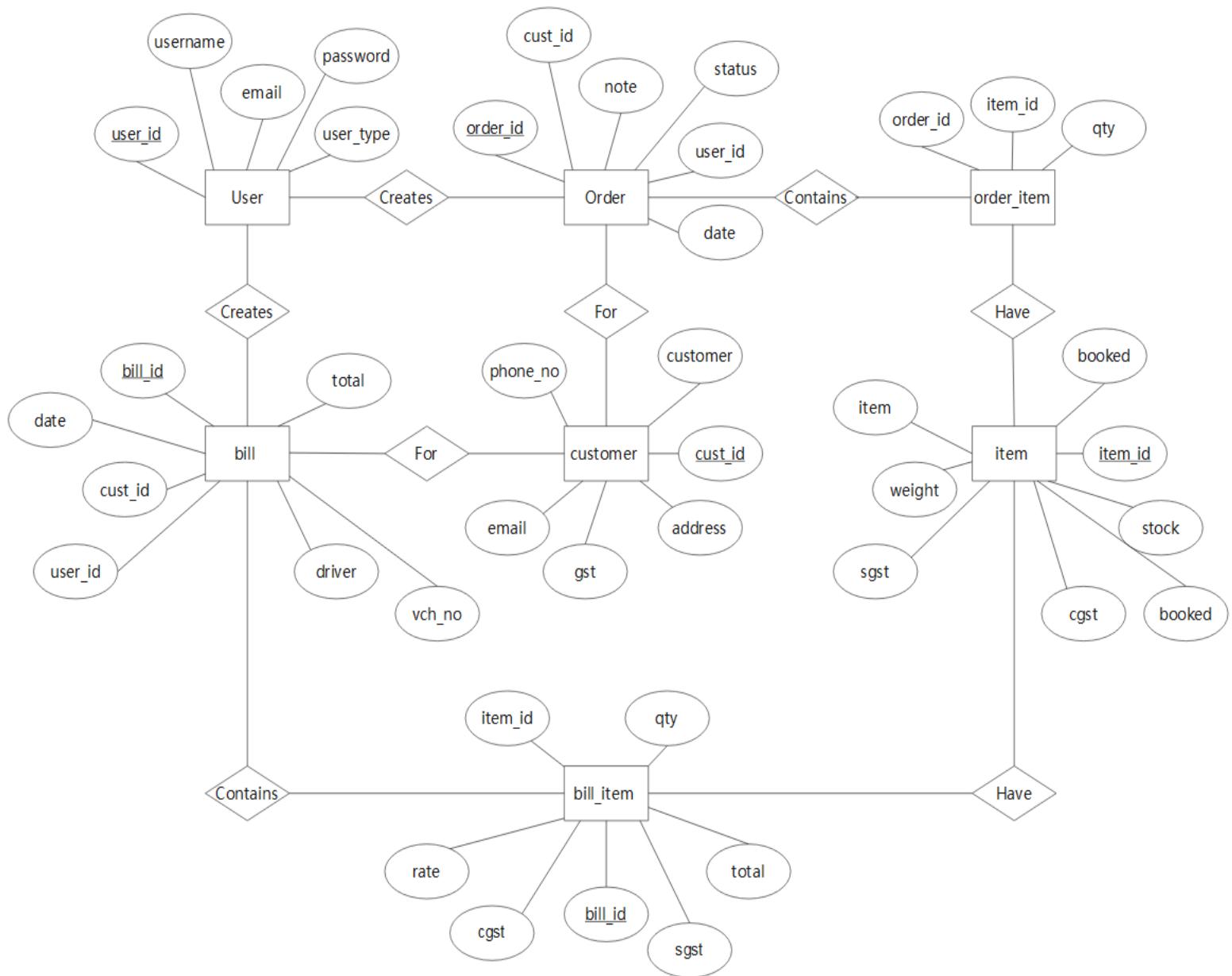
Front End	Html, CSS, Tailwind
Back End	Node.js, Express, SQLite3
Operating System	Windows 11
Browsers	Chrome, Brave, Edge
API's	Express-session, bcryptjs, jsonwebtoken, nodemailer, pdfkit.
Tools	VS Code (Microsoft)



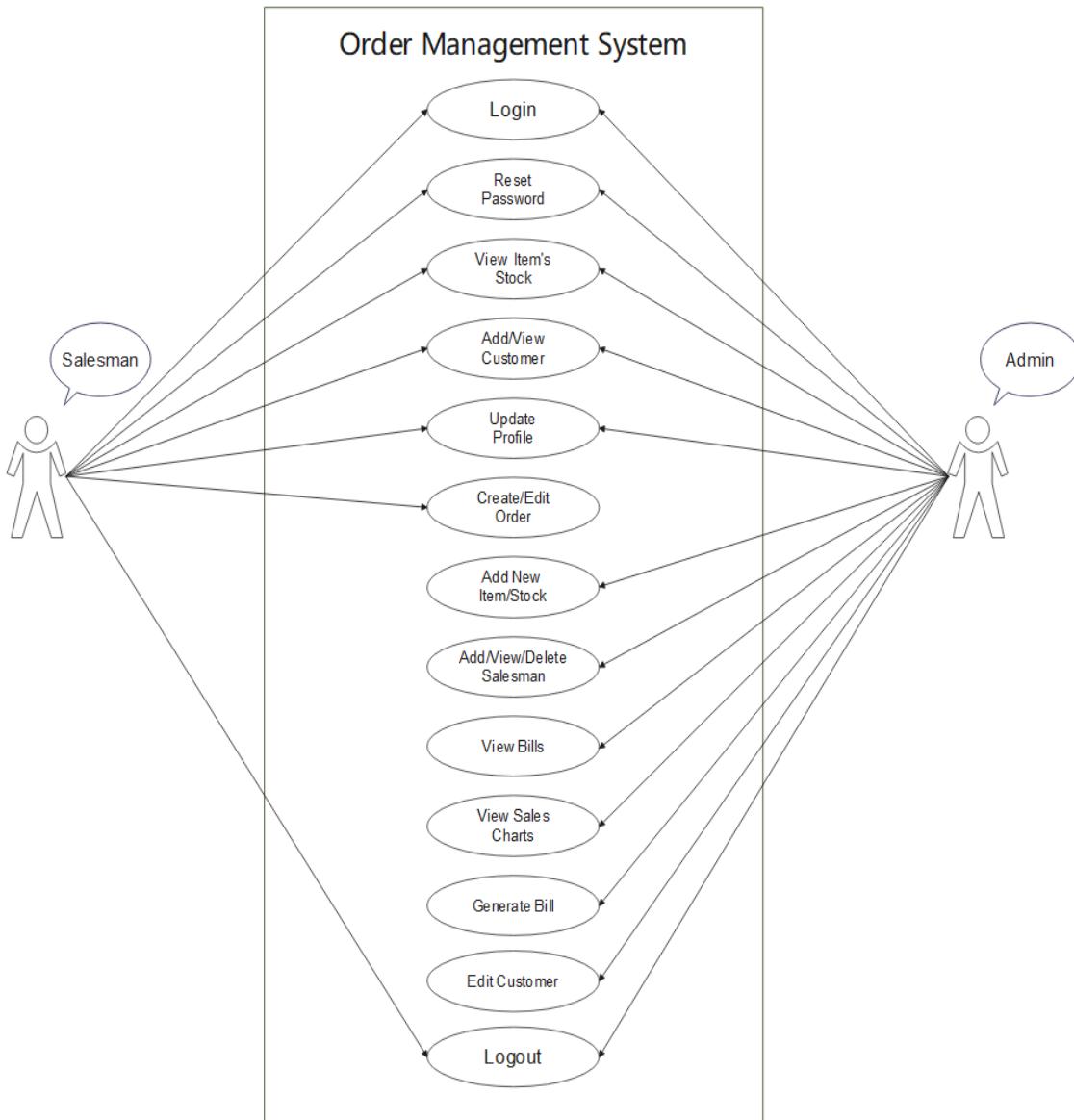
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3 . Structure Analysis

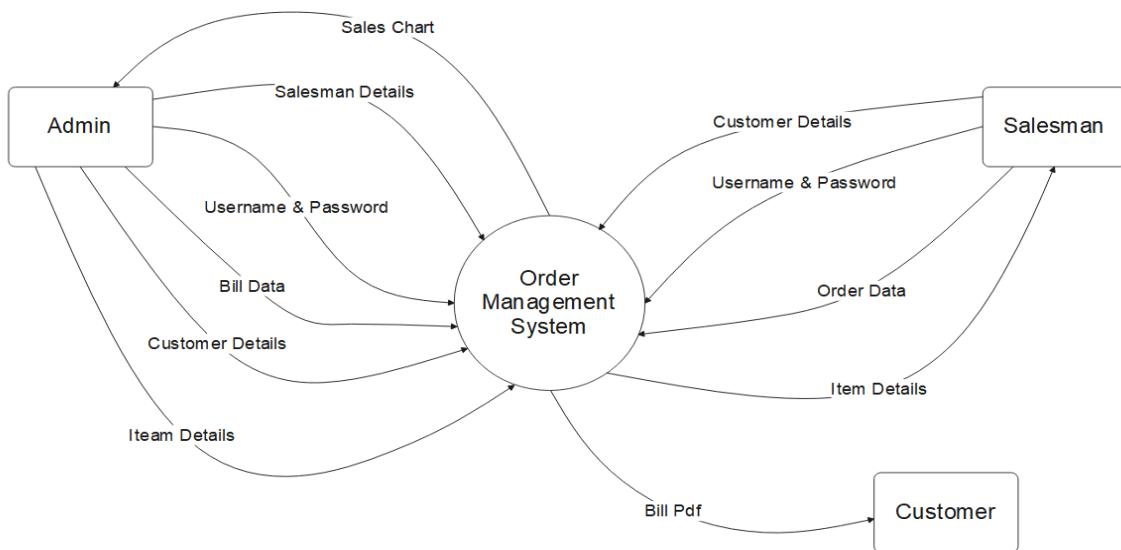
3.1 ER Diagram



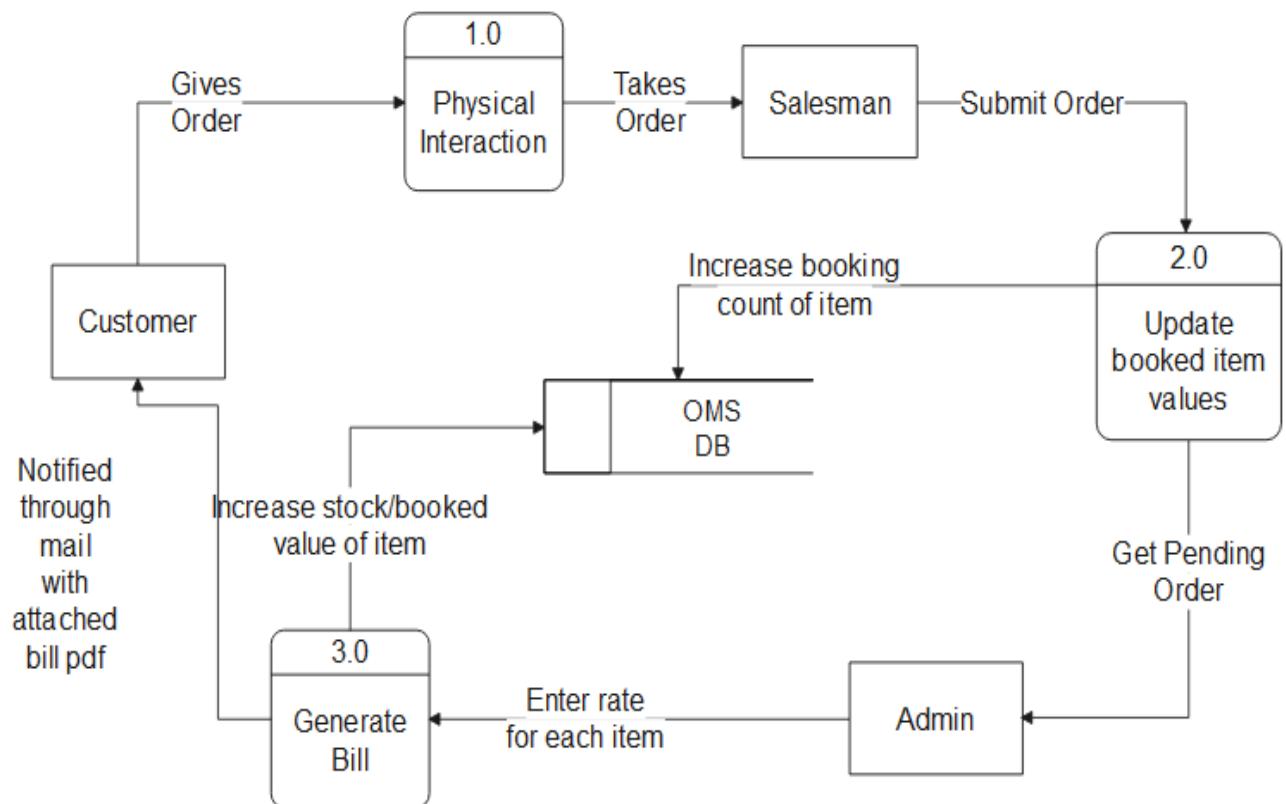
3.2 Use Case Diagram



3.3.1 DFD Level 0

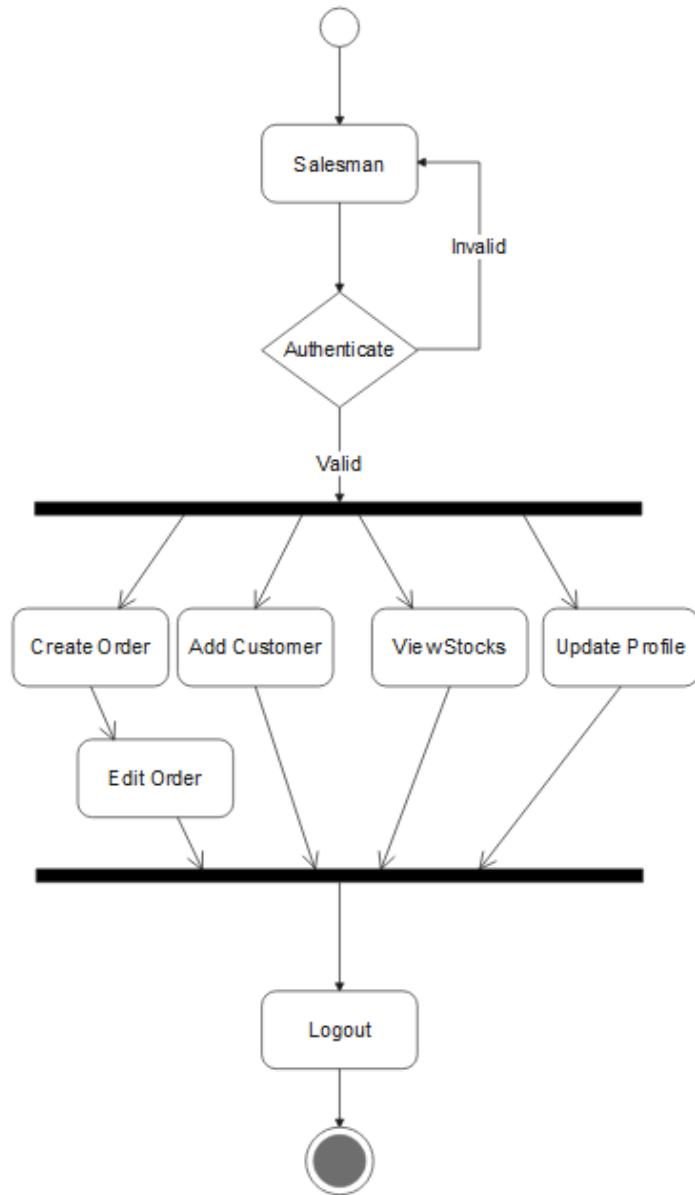


3.3.2 DFD Level 1

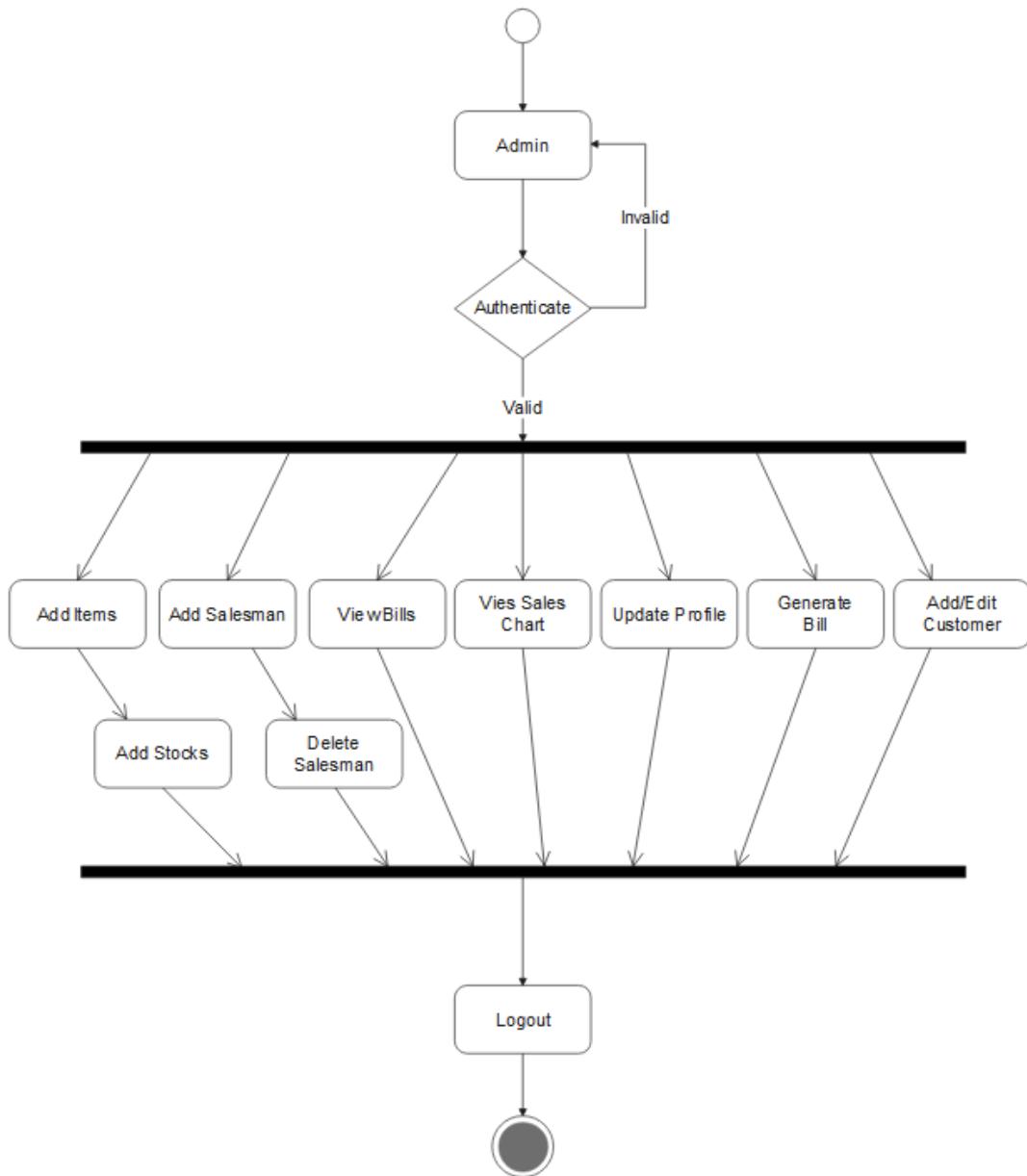




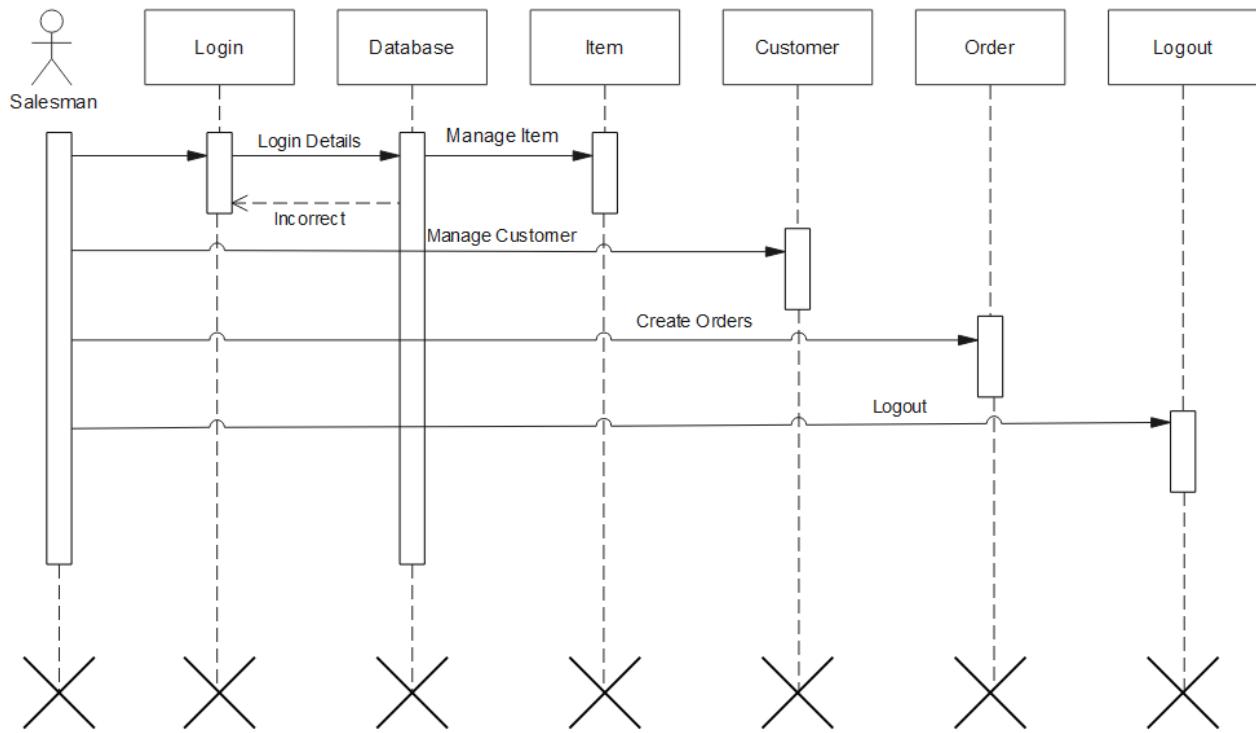
3.4.1 Activity Diagram of Salesman



3.4.2 Activity Diagram of Admin



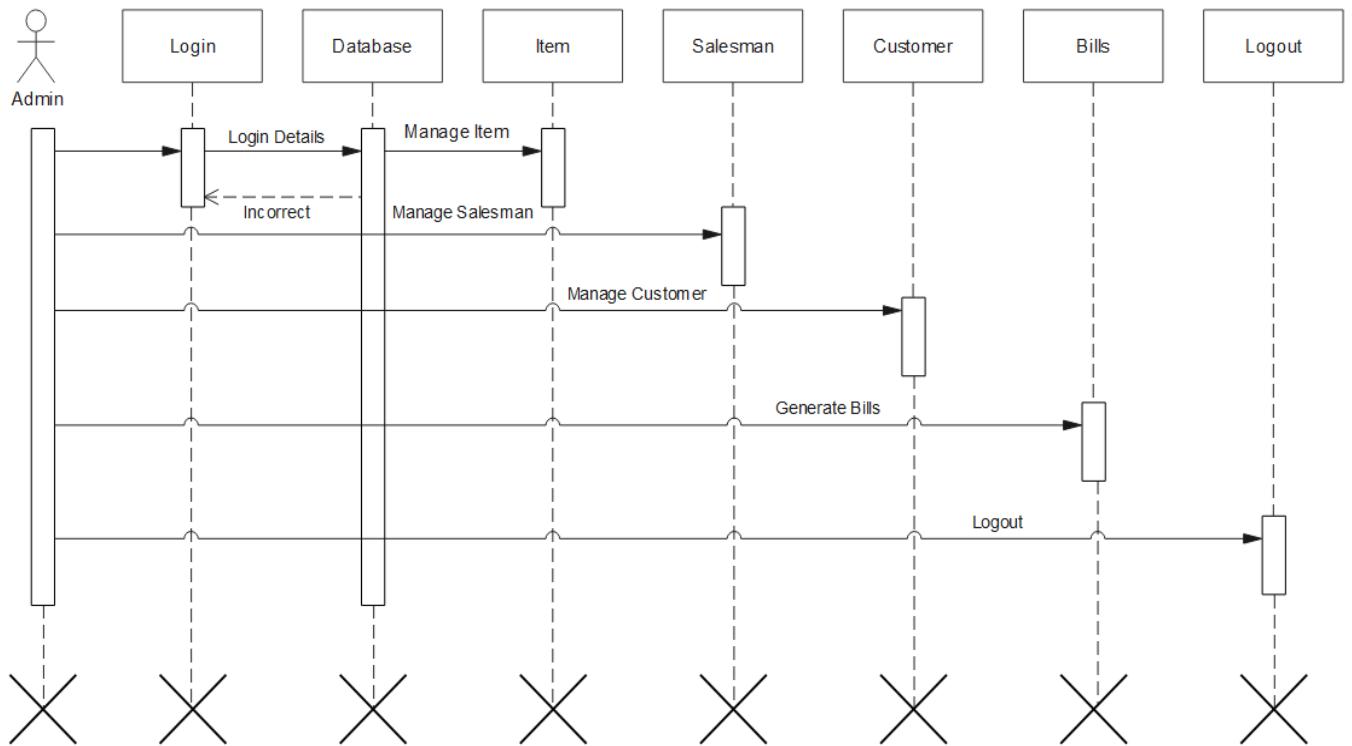
3.5.1 Sequence Diagram of Salesman



3.5.2 Sequence Diagram of Admin



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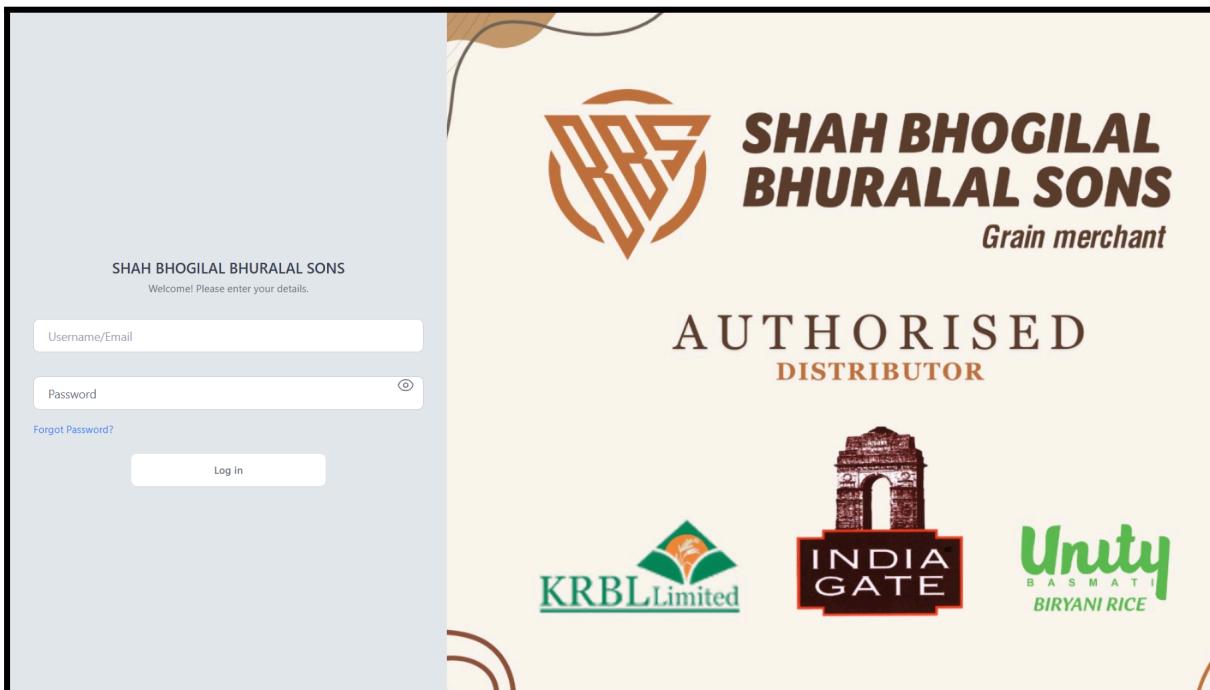


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4 . Interface Design



4.1 Login Page



4.2 Admin Dashboard Page



4.3 Admin Item Page

SHAH BHOGILAL BHURALAL SONS

Stock Management

Item Name	Weight (KG)	Tax	Stock	booked	Purchase
IG Dubar 1Kg	20	5%	200	null	<input style="width: 40px; height: 30px;" type="button" value="+"/>
IG Dubar 5Kg	20	5%	100	null	<input style="width: 40px; height: 30px;" type="button" value="+"/>
Unity Pulav 1Kg	20	5%	78	1	<input style="width: 40px; height: 30px;" type="button" value="+"/>
Zabreen Gold 30Kg	30	0%	20	0	<input style="width: 40px; height: 30px;" type="button" value="+"/>
IG Rozzana 1Kg	20	5%	100	7	<input style="width: 40px; height: 30px;" type="button" value="+"/>
Unity Mini Dubar 30Kg	30	0%	190	null	<input style="width: 40px; height: 30px;" type="button" value="+"/>
IG Regular Choice 1Kg	20	5%	12	12	<input style="width: 40px; height: 30px;" type="button" value="+"/>
IG Rozzana 5Kg	20	5%	87	0	<input style="width: 40px; height: 30px;" type="button" value="+"/>

4.4 Add New Item Page

ADD NEW ITEM

Item Name
Weight (KG)
CGST
SGST
STOCK
CATEGORY

SHAH BHOGILAL BHURALAL SONS
Grain merchant

AUTHORISED DISTRIBUTOR

KRBL Limited **INDIA GATE** **Unity BASMATI BIRYANI RICE**



DNV INTERNATIONAL EDUCATION ACADEMY

4.4 Bill List Page

List of Bills						
Search items...						
Bill NO.	Date	Customer	Driver	Total	Details	
16	2025-02-01	mayank shah	mahesh	17999	▼	
Item	Qty	Rate	Total			
Wheat Flour 26Kg	1	34	884			
IG Classic 1Kg	5	163	17115			
17	2025-02-03	harshad shah	mahesh	32220	▼	
18	2025-02-03	malayshah	mm	93060	▼	
19	2025-02-04	Padma Family Shop	malay	11970	▼	
20	2025-02-06	Vinayak Traders	malay	18900	▼	
21	2025-02-07	karan	nrupal	2902	▼	

4.5 Customer Page

List of Customers						
Search items...						
Name	E-mail	Contact	GST No.	Address	Edit	
malayshah	shahmalay2003@gmail.com	9081186363	23ASDAS1234S1S1	adipur	<input checked="" type="checkbox"/>	
kwalp	kalpbhavsar244@gmail.com	8780754447		Antarjal hai	<input checked="" type="checkbox"/>	
nrupal	nrupalgianchandani30@gmail.com	9081186363	NULL	adipur	<input checked="" type="checkbox"/>	
mayank shah	shahmayank1999@gmail.com	9081180909		adipur	<input checked="" type="checkbox"/>	
AADIS	shahmalay2003@gmail.com	8000176424	24ABZPI4652C2ZJ	Gandhidham	<input checked="" type="checkbox"/>	
Agrawal Marine	shahmalay2003@gmail.com	9426928728	24AANFA2054R1Z4	Gandhidham	<input checked="" type="checkbox"/>	
Amrut Dhara Trading	shahmalay2003@gmail.com	9099693677	null	Gandhidham	<input checked="" type="checkbox"/>	
Padma Family Shop	shahmalay2003@gmail.com	null	24AAPFP5737L1ZN	Adipur	<input checked="" type="checkbox"/>	
Padma Super Mart LLP	shahmalay2003@gmail.com	null	null	Gandhidham	<input checked="" type="checkbox"/>	
U K Super Market	shahmalay2003@gmail.com			Adipur	<input checked="" type="checkbox"/>	



4.6 New Customer Registration Page

REGISTER NEW CUSTOMER

Customer Name

Email

Contact

GSTIN

Address

REGISTER

SHAH BHOGILAL BHURALAL SONS
Grain merchant

AUTHORISED
DISTRIBUTOR

KRBL Limited

INDIA GATE

Unity
BASMATI
BIRYANI RICE

4.7 Salesman List Page

SHAH BHOGILAL BHURALAL SONS

List of Salesmen

Username	E-mail	Let GO
ranjeet	shahmalay2003@gmail.com	-
mayank	shahmalay2003@gmail.com	-
salesman1	shahmalay2003@gmail.com	-
kwalps	kalpbhavsar244@gmail.com	-
Vivaan	njbhavsar76@gmail.com	-
Ronny	jajajin@gmail.com	-

Add Salesman



4.8 Update Profile Page

SHAH BHOGILAL BHURALAL SONS

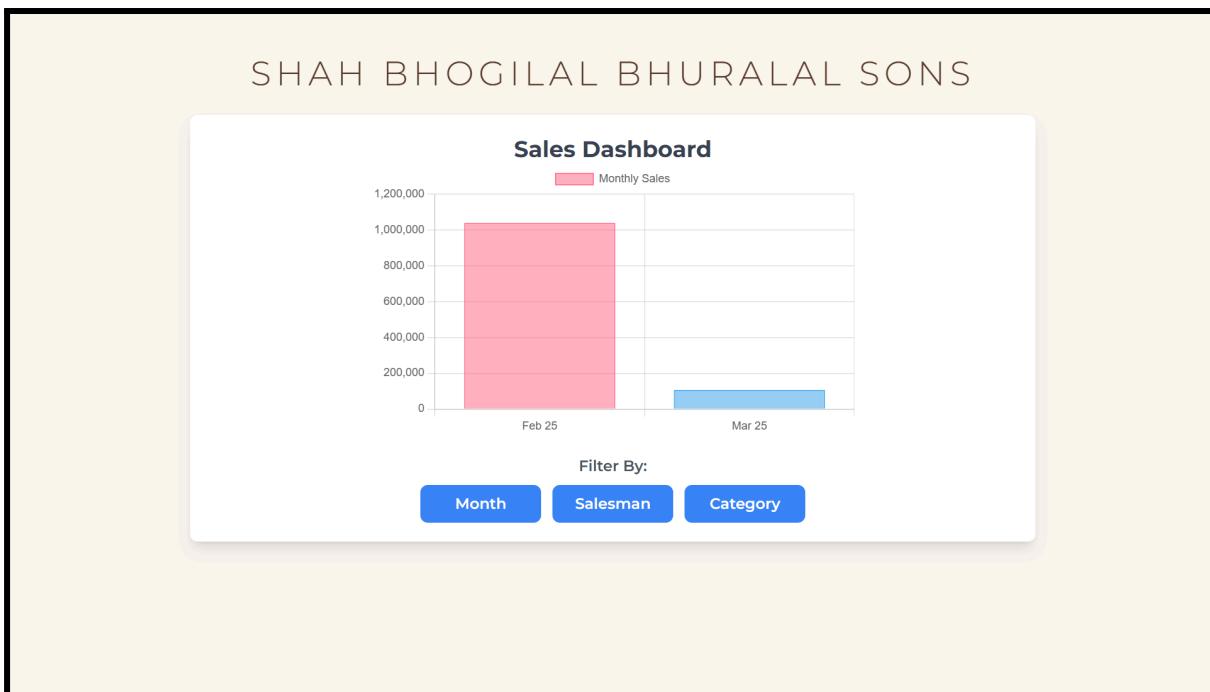
Update Profile

Name

Email

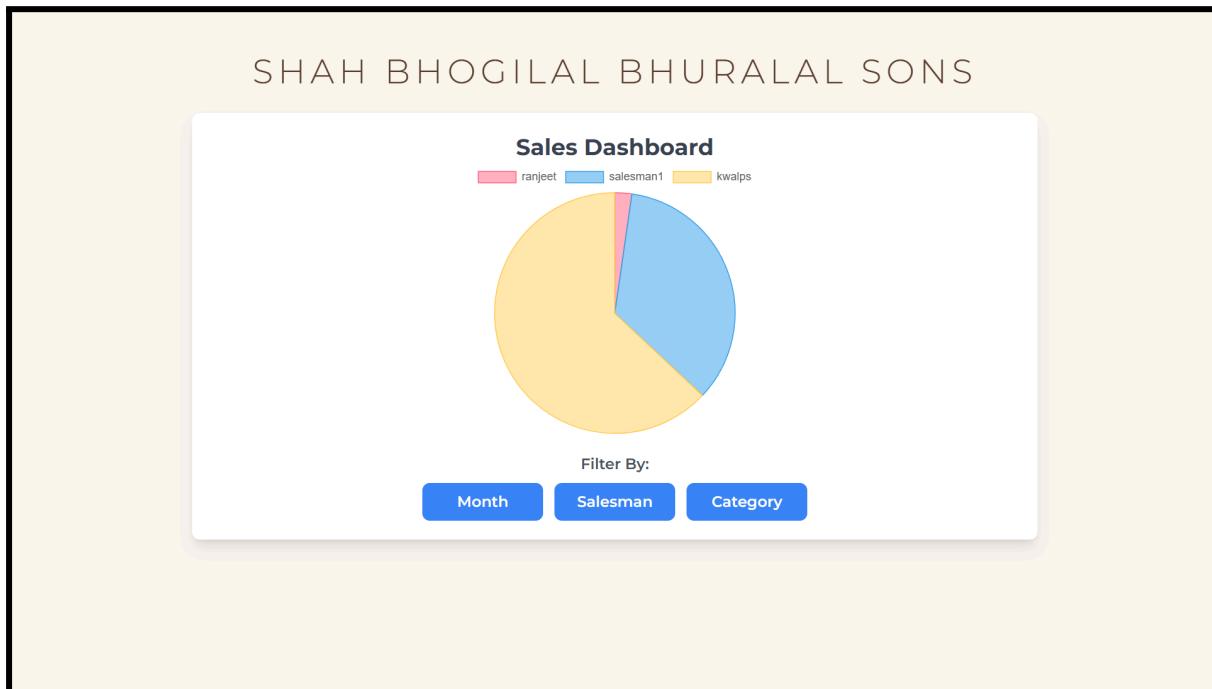
Update

4.9 Monthly Sales Chart





4.10 Salesman Sales Chart



4.11 Bill Generation Page

SHAH BHOGILAL BHURALAL SONS

Date: 03/16/2025

Driver Name: Malay Vehicle Number: 9990

Customer Name: Padma Super Mart LLP Customer Address: Gandhidham

Item	Weight	Qty	Rate	CGST (%)	SGST (%)	Total
IG Rozzana 1Kg	20	2	100	2.5	2.5	4200.00
IG Regular Choice 1Kg	20	2	150	2.5	2.5	6300.00

Grand Total: 10500.00

Generate Bill



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4.12 Customer Notification Mail

shahmalay2003@gmail.com
to me ▾

1:26 AM (1 minute ago) ⚡ ⓘ ⌂ ⌂

Invoice 44 Dispatched

Dear Customer,

Your order has been dispatched with **Malay** on vehicle number **9990** on **2025-03-16**.

Total Amount: ₹10500

Refer to the attached bill for more details.

Thank you for your business!

One attachment • Scanned by Gmail ⓘ



PDF bill_44.pdf

4.13 Generated Bill

Customer: Padma Super Mart LLP
Vehicle No: 9990
Driver: Malay

PLOT NO. 4, WARD 12B,
SHOP NO. 3, GURUDWARA ROAD,
GANDHIDHAM KUTCH 372001
Mobile : 94262 45009, 79900 55433
Email : shahbhogilalbhuralalsons@gmail.com
GSTIN : 24BLCPSP2428A1ZL

SSCET 10722013000213

SHAH BHOGILAL SONS
Grain merchant

ITEMS	QTY	RATE	SGST	CGST	TOTAL
IG Rozanna 1Kg	2	100	2.5%	2.5%	4200.00
IG Regular Choice 1Kg	2	150	2.5%	2.5%	6300.00
Grand Total:					10500.00

Invoice No: 44
Date: 16 Mar 25

COSMOS BANK A/c No. 08260010462 IFSC: COSB00000082

Terms :
* PAYMENT IN 15 DAYS
* Interest will be charged.
* Party & Driver both are responsible for payment.
* The company reserves special offer delivery.
* Party is responsible for making payment in time for next trip.
* Party will not give payment to my one.

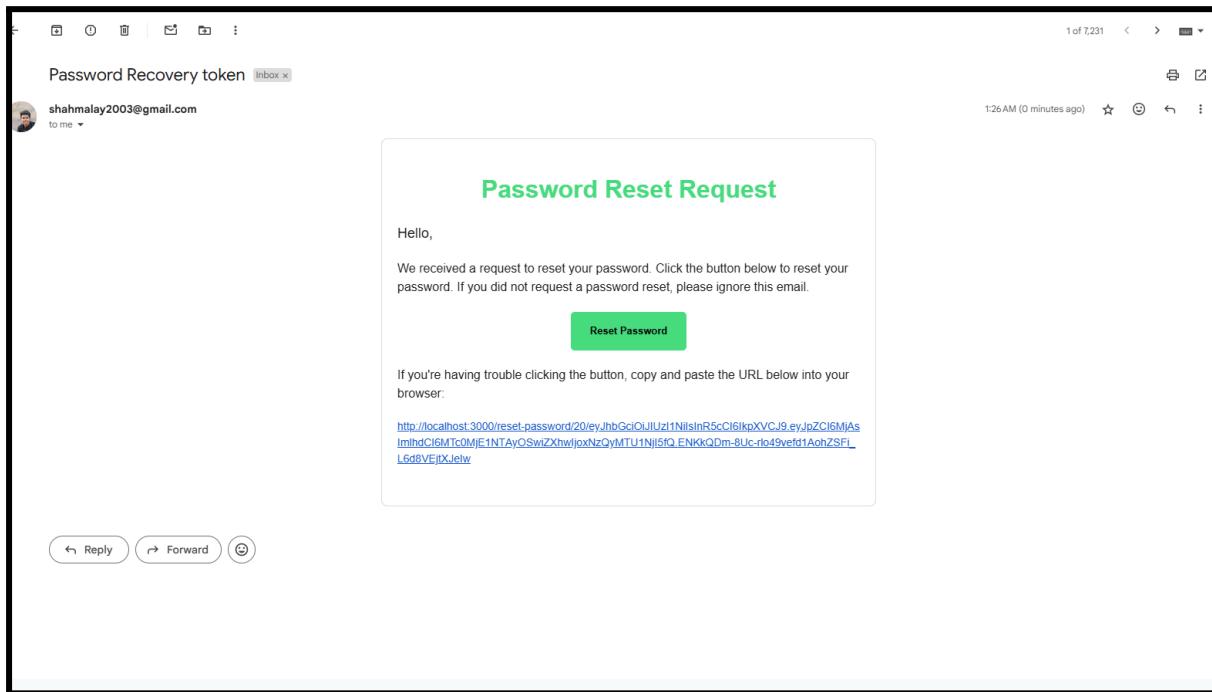
E & OE



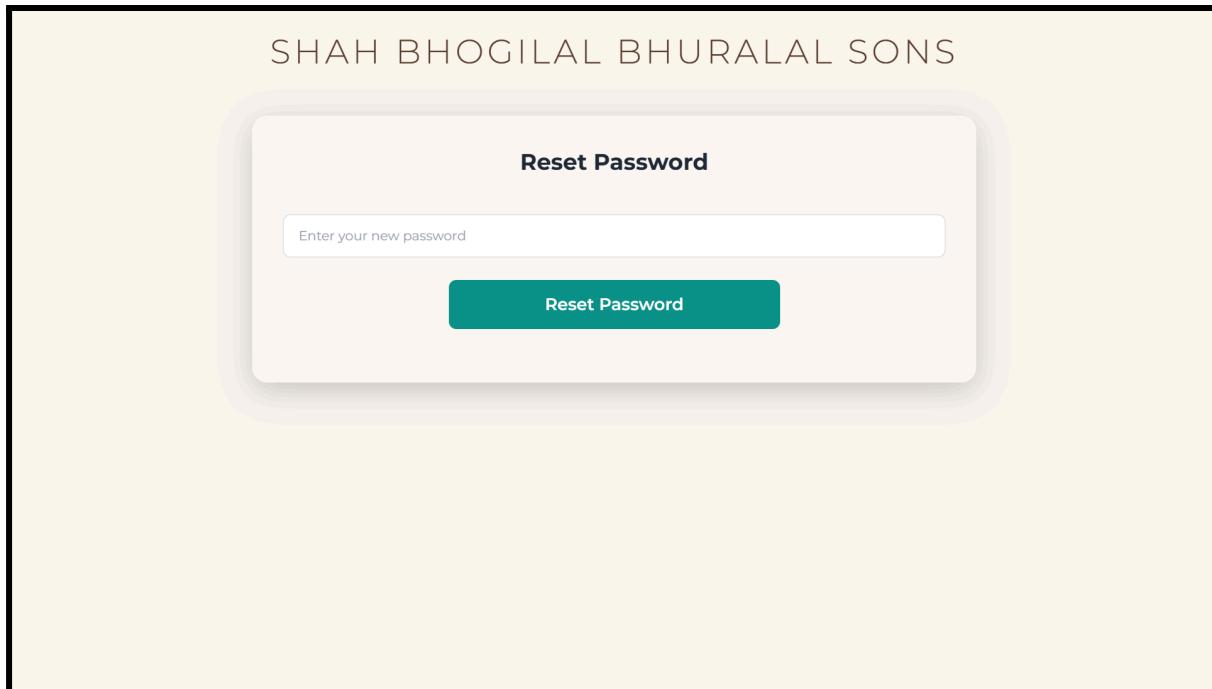
Authorised Distributor



4.14 Reset Password Mail



4.15 Reset Password Page





4.16 Create Order Page

SHAH BHOGILAL BHURALAL SONS

Order Date
03/16/2025

Customer Name
Ten Eleven Group

Item Name	Quantity
IG Dubar 5Kg	10
Unity Biryani 5Kg	5

Add Another Item

Note
Urgent

Submit Order

4.17 Edit Order Page

SHAH BHOGILAL BHURALAL SONS

Update Order

Customer Name
Ten Eleven Group

Item Name	Quantity	Remove
IG Dubar 5Kg	10	X
Unity Biryani 5Kg	5	X

Update



5 . Database Design



5.1 User Table

Column	Type	Constraint
user_id	INTEGER	PK, AI,
username	TEXT	NOT NULL
email	TEXT	NOT NULL
password	TEXT	NOT NULL
user_type	TEXT	NOT NULL

5.2 Customer Table

Column	Type	Constraint
cust_id	INTEGER	PK, AI
customer	TEST	NOT NULL
address	TEST	No
gst	INTEGER	No
email	TEST	NOT NULL
phone_no	INTEGER	No



5.3 Item Table

Column	Type	Constraint
item_id	INTEGER	PK, AI
Item	TEXT	NOT NULL
weight	INTEGER	NOT NULL
sgst	NUMERIC	No
cgst	INTEGER	No
stock	INTEGER	NOT NULL
booked	INTEGER	No
category	TEXT	No

5.4 Order Table

Column	Type	Constraint
order_id	INTEGER	PK
cust_id	INTEGER	No
note	TEXT	No
status	TEXT	NOT NULL
user_id	INTEGER	FK
date	TEXT	NOT NULL



5.5 Order-Item Table

Column	Type	Constraint
order_id	INTEGER	FK
item_id	INTEGER	FK
qty	INTEGER	NOT NULL

5.6 Bill Table

Column	Type	Constraint
bill_id	INTEGER	PK, AI
date	TEXT	NOT NULL
cust_id	INTEGER	FK
user_id	INTEGER	FK
driver	TEXT	NOT NULL
vch_no	INTEGER	NOT NULL
total	INTEGER	NOT NULL



5.7 Bill-Item Table

Column	Type	Constraint
bill_id	INTEGER	FK
item_id	INTEGER	FK
qty	INTEGER	NOT NULL
rate	INTEGER	NOT NULL
cgst	INTEGER	NOT NULL
sgst	INTEGER	NOT NULL
total	INTEGER	NOT NULL



6. References



- <https://tailwindcss.com/docs/installation/using-vite>
(Tailwind CSS)
- <https://youtu.be/nS1o0kHZcic?si=T5WM0eM1nZrL0XYu>
(bcrypt js)
- <https://www.chartjs.org/docs/latest/getting-started/charts.js>
- <https://nodemailer.com/about/>
(Nodemailer)
- https://youtu.be/7H_QH9nipNs?si=2fy6Oayxbw9Tljcm
(Express js)
- <https://youtu.be/ZRYn6tgnEgM?si=SNiFCxHIC5GGk1c0>
(Sqlite 3)
- <https://pdfkit.org/>
(pdfkit)
- https://youtu.be/S20PCL9e_ks?si=v1mbxS5KlZbqPavv
(JWT)