

School of Technology Management and Engineering

A Project Report On

Boutique Database Management System

Submitted By

Ananya P – 70572200052

Charala Pujitha- 70572200017

Malde Saicharan - 70572200033

Submitted To

Prof. Wasiha Tasneem

Submission Date

03 April,2024

ACKNOWLEDGEMENT

We are grateful to Prof. Wasiha Tasneem, whose guidance, inspiration and constructive suggestions throughout the project has resulted in a successful completion of this project. Without their willing disposition, cooperation this project could not have been completed in due time.

Date:	
Datt	•••••

Cse - 4th semester

Roll No: L033

Roll No: L053

Roll No: L028

CERTIFICATE OF ACCEPTANCE

The report of the Project titled "Boutique Database Management System" submitted by Ananya(L053), Saicharan(L037), Pujitha(L028) of CSE 4th Semester of 2024) is hereby recommended to be accepted for fulfilment of the semester 4.

Signature with date

Boutique Database Management System

Contents

TOPICS	PAGE NO.
1. Problem Statement	1
2. Abstract	2
3. Entity Sets	3
4. Relationship Sets	4
5. ER – Diagram	5
6. Relational Model	6
7. Table Creation	7-8
8. Database Foreign Key diagram	9
9. Database Tables and their Structure	10-12
10. Inserting data into Tables	13-16
11. Code for fetching data	17-28
12. Fetched data from database using queries	29-36
13. Conclusion	37

Problem Statement

In the boutique industry, managing customer information, processing orders, tracking payments, and recording measurements are vital aspects of daily operations. However, traditional methods of record-keeping, such as manual files or basic digital spreadsheets, often lead to inefficiencies, errors, and difficulties in scaling as the business grows.

The boutique faces challenges in efficiently organizing and accessing customer data, tracking orders throughout the production process, managing payments and outstanding dues, and maintaining accurate measurement records for each client. Without a structured and automated system in place, these tasks can become time-consuming, prone to errors, and hinder the overall efficiency of the business.

To address these challenges, there is a need for a comprehensive database solution tailored to the boutique's requirements. This solution will provide a centralized platform for storing and managing customer details, automating order processing, tracking payments, and recording measurements accurately. By implementing such a system, the boutique can optimize its operations, improve customer service, and make data-driven decisions to drive business growth

Abstract

This project aims to develop a specialized database system tailored for boutique businesses, focusing on customer details, order processing, payments, and measurements. By centralizing and automating key operations, the database enhances efficiency, customer service, and decision-making. Through advanced analytics, it provides insights for strategic initiatives, while user-friendly features facilitate personalized interactions and streamline workflows. Ultimately, the database empowers boutique owners to optimize operations and elevate their businesses in a competitive market.

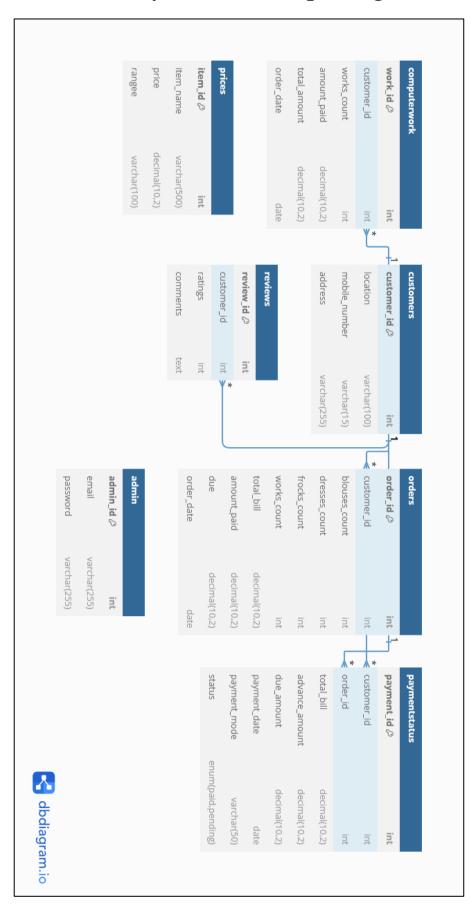
Entity Sets

- 1. **Computerwork:** Represents individual tasks or work items performed for customers, including details such as work count, amount paid, and order date.
- 2. **Customers:** Represents unique customers of the boutique, storing their personal information such as name, location, mobile number, and address.
- 3. **Orders:** Represents individual orders placed by customers, containing information about the items ordered (e.g., blouses, dresses, frocks), total bill, payment status, and order date.
- 4. **Paymentstatus:** Represents the payment status of orders made by customers, including details such as total bill, advance amount, due amount, payment date, payment mode, and status (paid or pending).
- 5. **Prices:** Stores the prices of different items offered by the boutique, including item name, price, and range.
- 6. **Reviews:** Records customer reviews and ratings, along with any comments they provide about their experience with the boutique.
- 7. **Admin:** Represents administrative users who have access to the system, storing their ID, email, and password for authentication purposes.

Relationship Sets

- 1. **Computerwork Customers:** Each computer work task is associated with a specific customer, allowing the boutique to track the work performed for individual customers.
- 2. **Orders Customers:** Each order is placed by a specific customer, establishing a one-to-many relationship between customers and their orders.
- 3. **Paymentstatus Customers:** Each payment status entry is linked to a particular customer, enabling the boutique to manage payment details for each customer's orders.
- 4. **Paymentstatus Orders:** Each payment status entry corresponds to a specific order, facilitating the tracking of payment information for individual orders.
- 5. **Reviews Customers:** Each review is provided by a specific customer, allowing the boutique to associate reviews with the customers who provided them.

Entity Relationship Diagram



Relational Model

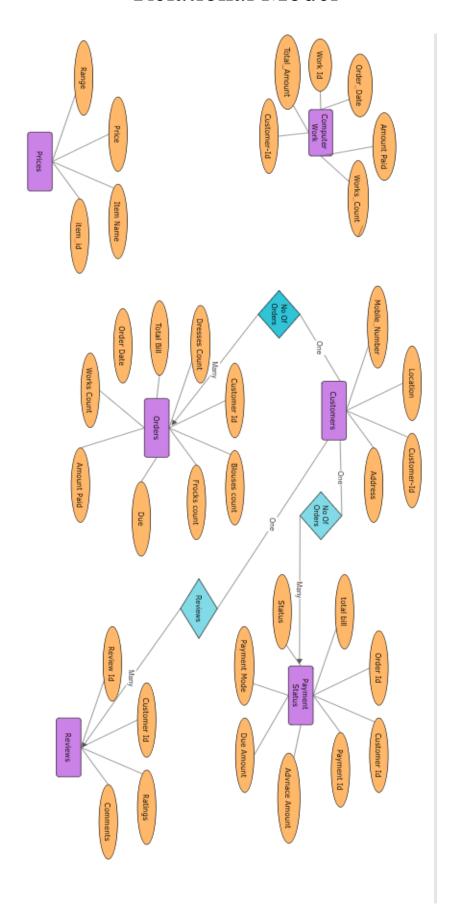


Table Creation

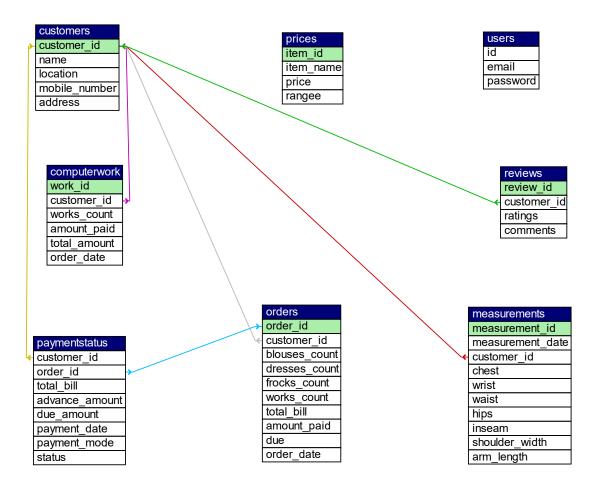
MySQL Program:

```
CREATE TABLE computerwork (
 work_id int(11) NOT NULL AUTO_INCREMENT PRIMARY KEY,
 customer id int(11) DEFAULT NULL,
 works count int(11) DEFAULT NULL,
 amount paid decimal(10,2) DEFAULT NULL,
 total amount decimal(10,2) DEFAULT NULL,
 order date date DEFAULT NULL,
 FOREIGN KEY (customer id) REFERENCES customers(customer id)
);
CREATE TABLE customers (
 customer_id int(11) NOT NULL AUTO_INCREMENT PRIMARY KEY,
 name varchar(100) DEFAULT NULL,
 location varchar(100) DEFAULT NULL,
 mobile number varchar(15) DEFAULT NULL,
 address varchar(255) DEFAULT NULL
);
CREATE TABLE orders (
 order id int(11) NOT NULL AUTO INCREMENT PRIMARY KEY,
 customer id int(11) DEFAULT NULL,
 blouses count int(11) DEFAULT NULL,
 dresses count int(11) DEFAULT NULL,
 frocks count int(11) DEFAULT NULL,
 works count int(11) DEFAULT NULL,
 total bill decimal(10,2) DEFAULT NULL,
 amount paid decimal(10,2) DEFAULT NULL,
 due decimal(10,2) DEFAULT NULL,
 order date date DEFAULT NULL,
```

```
CONSTRAINT FK customer id orders FOREIGN KEY (customer id)
REFERENCES customers(customer id));
CREATE TABLE paymentstatus (
 customer id int(11) DEFAULT NULL,
 order id int(11) DEFAULT NULL,
 total bill decimal(10,2) DEFAULT NULL,
 advance amount decimal(10,2) DEFAULT NULL,
 due amount decimal(10,2) DEFAULT NULL,
 payment date date DEFAULT NULL,
 payment mode varchar(50) DEFAULT NULL,
 status enum('paid', 'pending') DEFAULT NULL,
 FOREIGN KEY (customer id) REFERENCES customers(customer id),
 FOREIGN KEY (order id) REFERENCES orders(order id)
);
CREATE TABLE prices (
 item id int(11) NOT NULL AUTO INCREMENT PRIMARY KEY,
 item name varchar(500) DEFAULT NULL,
 price decimal(10,2) DEFAULT NULL,
 rangee varchar(100) DEFAULT NULL
);
CREATE TABLE reviews (
 review id int(11) NOT NULL AUTO INCREMENT PRIMARY KEY,
 customer id int(11) DEFAULT NULL,
 ratings int(11) DEFAULT NULL,
 comments text DEFAULT NULL,
CONSTRAINT FK customer id reviews FOREIGN KEY (customer id)
REFERENCES customers(customer id)
);
CREATE TABLE admin (
 id int(11) NOT NULL AUTO INCREMENT PRIMARY KEY,
 email varchar(255) NOT NULL,
```

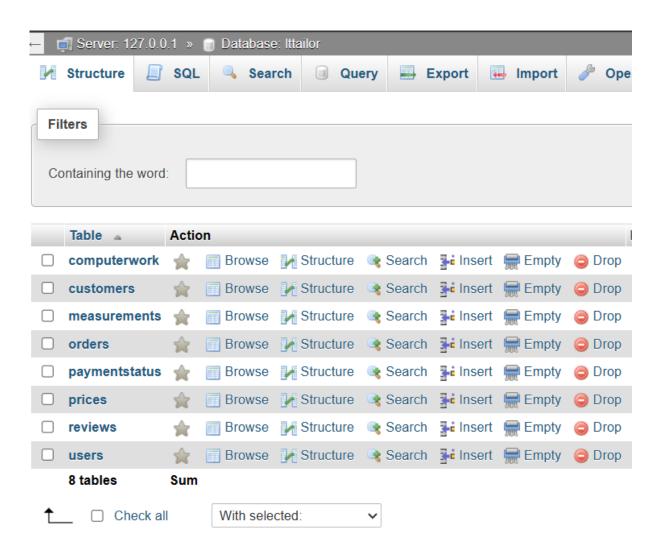
password varchar(255) NOT NULL);

Database Foreign Key Diagram

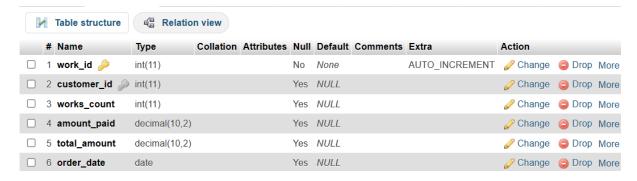


Database Tables

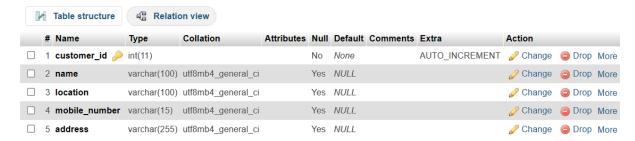
All Tables



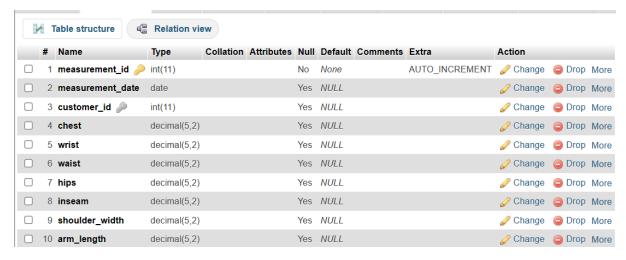
Computer Work Table Structure



Customers Table Structure



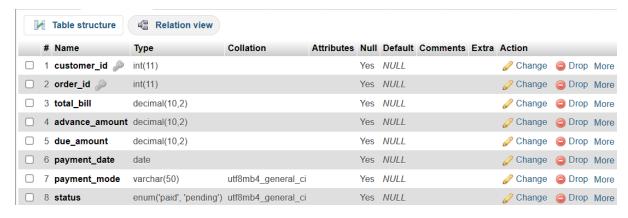
Measurements Table Structure



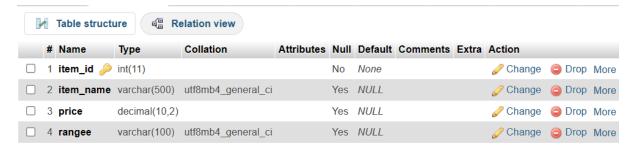
Orders Table Structure



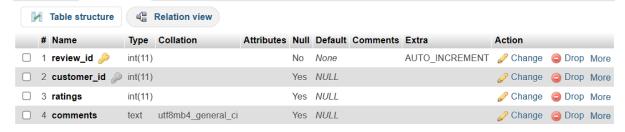
Payment Status Table Structure



Prices Table Structure



Review Table Structure



Users Table Structure



Inserting Data Into Tables

```
INSERT INTO 'computerwork' ('work_id', 'customer_id', 'works_count', 'amount_paid', 'total_amount', 'order_date') VALUES

(31, 41, 5, 2000.00, 3000.00, '2023-08-25'),

(32, 42, 3, 1500.00, 1800.00, '2024-03-16'),

(33, 43, 7, 2500.00, 4000.00, '2024-03-16'),

(34, 44, 1, 500.00, 800.00, '2023-08-25'),

(35, 45, 6, 2500.00, 3500.00, '2023-12-10'),

(36, 46, 4, 2000.00, 3000.00, '2024-03-16'),

(37, 47, 3, 1500.00, 1800.00, '2023-12-10'),

(38, 48, 7, 2500.00, 4000.00, '2024-03-16'),

(39, 49, 2, 500.00, 800.00, '2023-08-25'),

(40, 50, 6, 2500.00, 3500.00, '2024-03-16');
```

INSERT INTO 'customers' ('customer_id', 'name', 'location', 'mobile_number', 'address') VALUES

- (41, 'Pujitha', 'Hyderabad, Telangana', '9876543210', 'Convention Nagar, Hyderabad'),
- (42, 'Ananya', 'Visakhapatnam, Andhra Pradesh', '8765432109', 'Beach Road, Visakhapatnam'),
- (43, 'Pragnya', 'Vijayawada, Andhra Pradesh', '7654321098', 'Petabadi, Vijayawada'),
- (44, 'Yashwanthi', 'Guntur, Andhra Pradesh', '6543210987', 'Raju Road, Guntur'),
- (45, 'Akhila', 'Karimnagar, Telangana', '5432109876', 'Maitri Nagar, Karimnagar'),

- (46, 'Rani', 'Rajamahendravaram, Andhra Pradesh', '4321098765', 'Mayil Road, Rajamahendravaram'),
- (47, 'Avanthi', 'Hyderabad, Telangana', '3210987654', 'Bell Road, Hyderabad'),
- (48, 'Manju', 'Visakhapatnam, Andhra Pradesh', '2109876543', 'Venkateshwarpuram, Visakhapatnam'),
- (49, 'Vrushali', 'Warangal, Telangana', '1098765432', 'Lakeview Colony, Warangal'),
- (50, 'Latha', 'Vijayawada, Andhra Pradesh', '9988776655', 'Chaitanya Nagar, Vijayawada');

-- -----

INSERT INTO 'measurements' ('measurement_id', 'measurement_date', 'customer_id', 'chest', 'wrist', 'waist', 'hips', 'inseam', 'shoulder_width', 'arm_length') VALUES

- (41, '2024-03-16', 41, 36.50, 7.80, 30.00, 38.00, 28.00, 16.00, 22.00),
- (42, '2024-03-16', 42, 34.20, 7.50, 28.00, 36.00, 26.00, 15.00, 20.00),
- (43, '2023-08-25', 43, 38.00, 8.00, 32.00, 40.00, 30.00, 17.00, 24.00),
- (44, '2023-08-25', 44, 32.50, 7.00, 26.00, 34.00, 24.00, 14.00, 18.00),
- (45, '2024-03-16', 45, 40.00, 8.50, 36.00, 44.00, 32.00, 18.00, 26.00),
- (46, '2023-12-10', 46, 36.00, 8.20, 30.00, 38.00, 28.00, 16.00, 22.00),
- (47, '2023-12-10', 47, 33.00, 7.30, 28.00, 36.00, 26.00, 15.00, 20.00),
- (48, '2024-03-16', 48, 35.50, 7.60, 32.00, 40.00, 30.00, 17.00, 24.00),
- (49, '2023-08-25', 49, 37.00, 7.90, 34.00, 42.00, 29.00, 16.50, 23.00),
- (50, '2024-03-16', 50, 31.50, 6.80, 25.00, 33.00, 23.00, 13.00, 17.00);

-- -----

INSERT INTO 'orders' ('order_id', 'customer_id', 'blouses_count', 'dresses_count', 'frocks_count', 'works_count', 'total_bill', 'amount_paid', 'due', 'order_date') VALUES

- (1, 41, 3, 2, 0, 1, 2500.00, 1500.00, 1000.00, '2023-08-25'),
- (2, 42, 2, 1, 0, 0, 1800.00, 1800.00, 0.00, '2024-03-16'),
- (3, 43, 4, 3, 2, 1, 4000.00, 3000.00, 1000.00, '2024-03-16'),

```
(4, 44, 1, 0, 0, 0, 800.00, 800.00, 0.00, '2023-08-25'),
```

$$(6, 46, 3, 2, 1, 1, 3000.00, 1500.00, 1500.00, 2024-03-16),$$

$$(7, 47, 2, 1, 0, 0, 1800.00, 1800.00, 0.00, '2023-12-10'),$$

$$(8, 48, 4, 3, 2, 1, 4000.00, 3000.00, 1000.00, '2024-03-16'),$$

(9, 49, 1, 0, 0, 0, 800.00, 800.00, 0.00, '2023-08-25'),

(10, 50, 5, 2, 0, 2, 3500.00, 2000.00, 1500.00, '2024-03-16');

-- -----

INSERT INTO 'paymentstatus' ('customer_id', 'order_id', 'total_bill', 'advance_amount', 'due_amount', 'payment_date', 'payment_mode', 'status') VALUES

(50, 10, 3500.00, 2000.00, 1500.00, '2024-03-16', 'Cash', 'paid');

-- -----

INSERT INTO 'prices' ('item_id', 'item_name', 'price', 'rangee') VALUES

- (1, 'Blouse', 500.00, 'Rs. 500 Rs. 1000'),
- (2, 'Frock', 1200.00, 'Rs. 1000 Rs. 2000'),
- (3, 'Dress', 1800.00, 'Rs. 1500 Rs. 2500'),
- (4, 'Chudidhar', 1000.00, 'Rs. 800 Rs. 1200'),
- (5, 'Lehenga', 2500.00, 'Rs. 2000 Rs. 3000'),

- (6, 'Maggam Blouse', 1500.00, 'Rs. 1200 Rs. 1800'),
- (7, 'Work Blouse', 800.00, 'Rs. 700 Rs. 1000'),
- (8, 'Pico Fall', 300.00, 'Rs. 200 Rs. 400');

INSERT INTO 'reviews' ('review_id', 'customer_id', 'ratings', 'comments') VALUES

- (1, 41, 4, 'The boutique offers a great variety of stylish outfits.'),
- (2, 42, 5, 'I adore the unique designs and attention to detail.'),
- (3, 43, 3, 'The quality of the fabric could be improved.'),
- (4, 44, 4, 'Friendly staff and efficient service.'),
- (5, 45, 5, 'I am always satisfied with my purchases from this boutique.'),
- (6, 46, 2, 'The sizes run smaller than expected.'),
- (7, 47, 5, 'Fantastic selection of accessories.'),
- (8, 48, 4, 'Reasonable prices for high-quality clothing.'),
- (9, 49, 3, 'The fitting could be more consistent.'),
- (10, 50, 5, 'Absolutely love shopping here! The staff is amazing.');

INSERT INTO 'users' ('id', 'email', 'password') VALUES

(1, 'saicharanmalde@gmail.com', '123456');

Fetched Data from Database Using Queries

(Simple, Joins, Aggregation, Sub-query)

SQL Queries

Query 1: Fetching data from the database

Customer ID	Name	Location
41	Pujitha	Hyderabad, Telangana
42	Ananya	Visakhapatnam, Andhra Pradesh
43	Pragnya	Vijayawada, Andhra Pradesh
44	Yashwanthi	Guntur, Andhra Pradesh
45	Akhila	Karimnagar, Telangana
46	Rani	Rajamahendravaram, Andhra Pradesh
47	Avanthi	Hyderabad, Telangana
48	Manju	Visakhapatnam, Andhra Pradesh
49	Vrushali	Warangal, Telangana
50	Latha	Vijayawada, Andhra Pradesh

Query 2: Aggregation function (Count)

Total Orders

10

Query 3: Joining tables (Customers and Orders)

Customer	Total Bill
Pujitha	\$2500.00
Ananya	\$1800.00
Pragnya	\$4000.00
Yashwanthi	\$800.00
Akhila	\$3500.00
Rani	\$3000.00
Avanthi	\$1800.00
Manju	\$4000.00
Vrushali	\$800.00
Latha	\$3500.00

Query 4: Subquery

Customer ID	Payment Date	Amount Paid
43	2024-03-16	\$4000.00
48	2024-03-16	\$4000.00

Query 5: Filtering data with WHERE clause

Order ID	Total Bill
1	\$2500.00
3	\$4000.00
5	\$3500.00
6	\$3000.00
8	\$4000.00
10	\$3500.00

Query 6: Sorting data with ORDER BY

Customer Name	Location
Akhila	Karimnagar, Telangana
Ananya	Visakhapatnam, Andhra Pradesh
Avanthi	Hyderabad, Telangana
Latha	Vijayawada, Andhra Pradesh
Manju	Visakhapatnam, Andhra Pradesh
Pragnya	Vijayawada, Andhra Pradesh
Pujitha	Hyderabad, Telangana
Rani	Rajamahendravaram, Andhra Pradesh
Vrushali	Warangal, Telangana
Yashwanthi	Guntur, Andhra Pradesh

Query 7: Grouping data with GROUP BY

Customer ID	Total Spent
41	\$2500.00
42	\$1800.00
43	\$4000.00
44	\$800.00
45	\$3500.00
46	\$3000.00
47	\$1800.00
48	\$4000.00
49	\$800.00
50	\$3500.00

Query 8: Subquery

Customer Name	Location
Pragnya	Vijayawada, Andhra Pradesh
Akhila	Karimnagar, Telangana
Rani	Rajamahendravaram, Andhra Pradesh
Manju	Visakhapatnam, Andhra Pradesh
Latha	Vijayawada, Andhra Pradesh

Query 9: Join

Customer Name	Order ID	Total Bill
Pujitha	1	\$2500.00
Ananya	2	\$1800.00
Pragnya	3	\$4000.00
Yashwanthi	4	\$800.00
Akhila	5	\$3500.00
Rani	6	\$3000.00
Avanthi	7	\$1800.00
Manju	8	\$4000.00
Vrushali	9	\$800.00
Latha	10	\$3500.00

Query 10: Aggregation Function

Total Blouses Ordered

30

Query 11: Join Operation

Customer Name	Wrist	Shoulder_width	arm_length
Pujitha	7.80	16.00	22.00
Ananya	7.50	15.00	20.00
Pragnya	8.00	17.00	24.00
Yashwanthi	7.00	14.00	18.00
Akhila	8.50	18.00	26.00
Rani	8.20	16.00	22.00
Avanthi	7.30	15.00	20.00
Manju	7.60	17.00	24.00
Vrushali	7.90	16.50	23.00
Latha	6.80	13.00	17.00

Query 12: Aggregate Function

Average Rating

4.0000

Query 13: Subquery

Customer Id	Due amount
45	1500.00
46	1500.00
50	1500.00

Query 14: Joining Tables

Customer	Order ID	Total Bill	Order Date
Pujitha	1	\$2500.00	2023-08-25
Ananya	2	\$1800.00	2024-03-16
Pragnya	3	\$4000.00	2024-03-16
Yashwanthi	4	\$800.00	2023-08-25
Akhila	5	\$3500.00	2023-12-10
Rani	6	\$3000.00	2024-03-16
Avanthi	7	\$1800.00	2023-12-10
Manju	8	\$4000.00	2024-03-16
Vrushali	9	\$800.00	2023-08-25
Latha	10	\$3500.00	2024-03-16

Query 15: Aggregation Function

Total Orders

1200.000000

Conclusion

In conclusion, the development of a specialized database system for boutique businesses represents a significant step towards enhancing operational efficiency and customer service. By centralizing and automating key processes such as customer order details management, processing, payments, and measurements, the database system streamlines workflows and improves decision-making. The incorporation of advanced analytics enables boutique owners to gain valuable insights for initiatives, while user-friendly features strategic personalized interactions with customers. Overall, this project empowers boutique owners to optimize their operations, elevate their businesses, and remain competitive in the market.