Transform Yourself

RESTAURANT BILL SYSTEM

Name : JANANI E
Roll No : 23ADR068
Date : 12/11/2024

KONGU ENGINEERING COLLEGE
PERUNDURAI.
LOVE * KNOWLEDGE * SERVICE
Estd : 1984

INTRODUCTION

Purpose:

The purpose of the Restaurant Bill System is to automate and streamline the billing process in restaurants, ensuring faster and more accurate calculations while reducing human errors. It manages orders, discounts, and transaction records efficiently using a database.

Technology Used:-

- Java programming language
- JDBC (Java Database Connectivity) for interaction with the database
- SQL for data storage and retrieval

SYSTEM DESIGN AND FEATURE

Features:

- Real Time Bill Calculation
- Database Integration with MySQL
- Receipt Generation
- User-Friendly Interface
- Stores customer details such as name and date.
- Stores order details, including customer ID, item name, quantity, price, and total.

Database:

- MySQL (or any relational database)

CORE FUNCTIONALITIES

1. **Customer Management:**
   Captures and stores customer details in the database.
2. **Order Management:**
   Allows input and management of multiple order items.
3. **Bill Calculation:**
   Calculates total bill with a 10% discount.
4. **Database Integration:**
   Stores customer and order data persistently in MySQL.
5. **Receipt Printing:**
   Prints a formatted, itemized receipt.
6. **Error Handling:**
   Handles input validation and database connection errors.

KEY COMPONENTS OF THE CODE

1. Format(String date, String name)

Prints the restaurant name, current date, and customer name in a formatted bill header.

2. printBill(String item, int qty, float price)

Prints details of a single order item, including its name, quantity, and total price.

3.CalculateBill(float[] prices, int[] quantities)

Computes the total bill by multiplying quantities with prices, applies a 10% discount, and prints the final amount.

4.InsertCustomer(String name)

Adds the customer's name and current date into the database's

5.insertOrder(int customerId, String item, int quantity, float price)

Inserts an order's details (item name, quantity, price, total cost) into the order3 table, linked to a specific customer ID.

DATABASE DESIGN

1. TABLE NAME:

- customer1

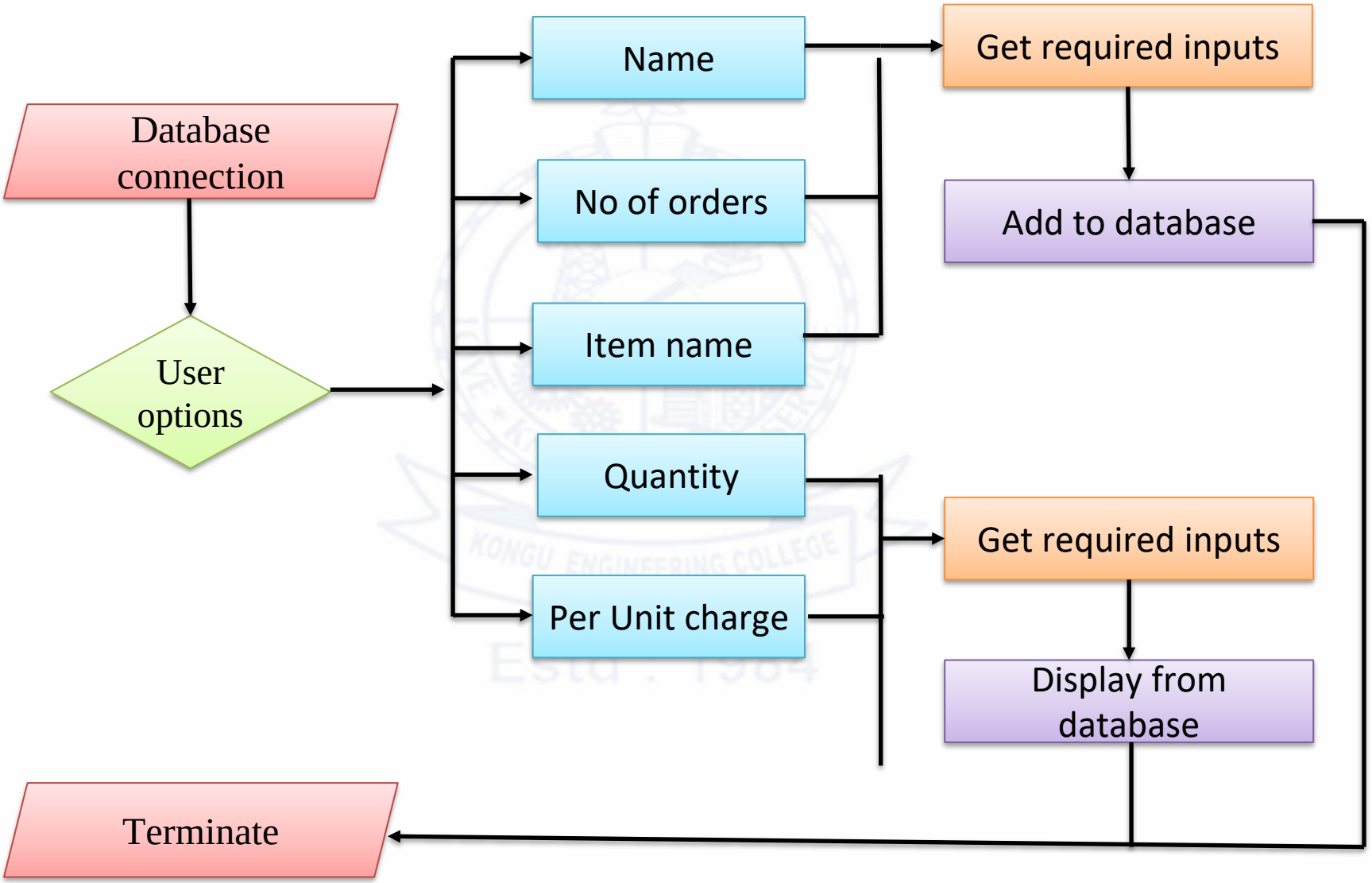
2. COLUMNS:

- id(INT,AUTO_INCREMENT,PRIMARY KEY)
- name(VARCHAR(100))
- date(DATE)

3. SQL OPERATIONS:

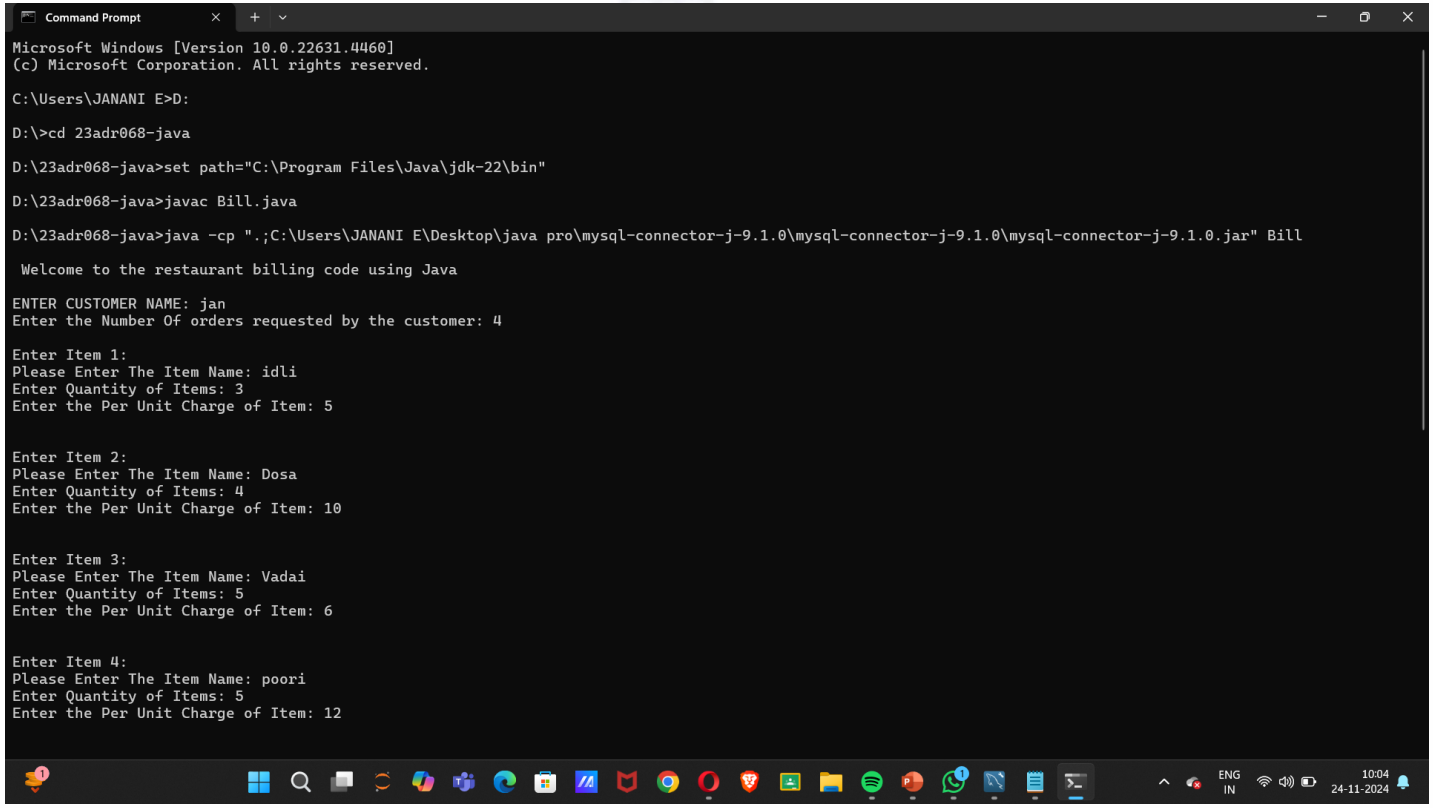
- Create Table
- Calculate the bill by obtaining the item,quantity and charge from the user.

Flow Chart



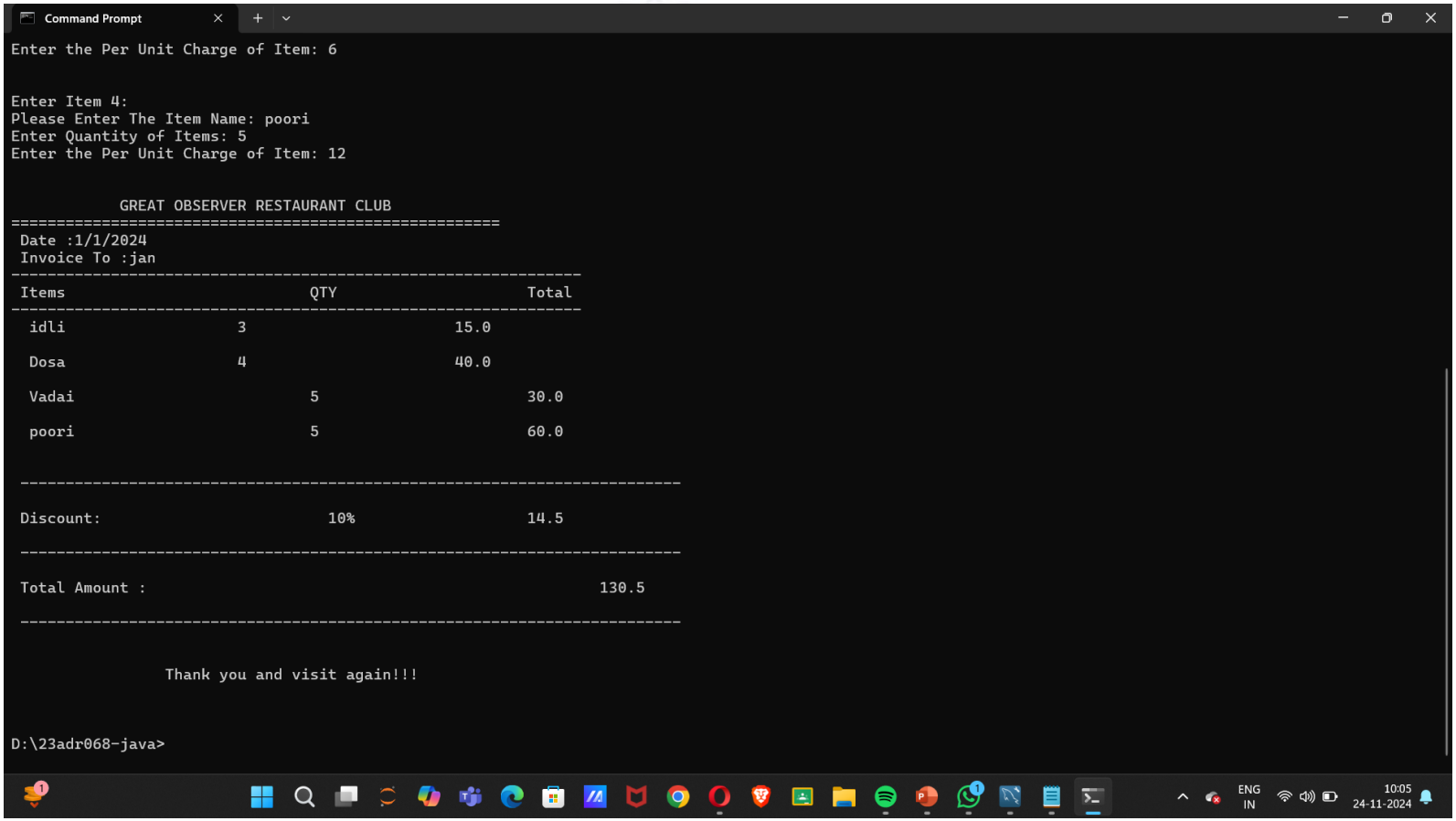
KONGU ENGINEERING COLLEGE

OUTPUT:



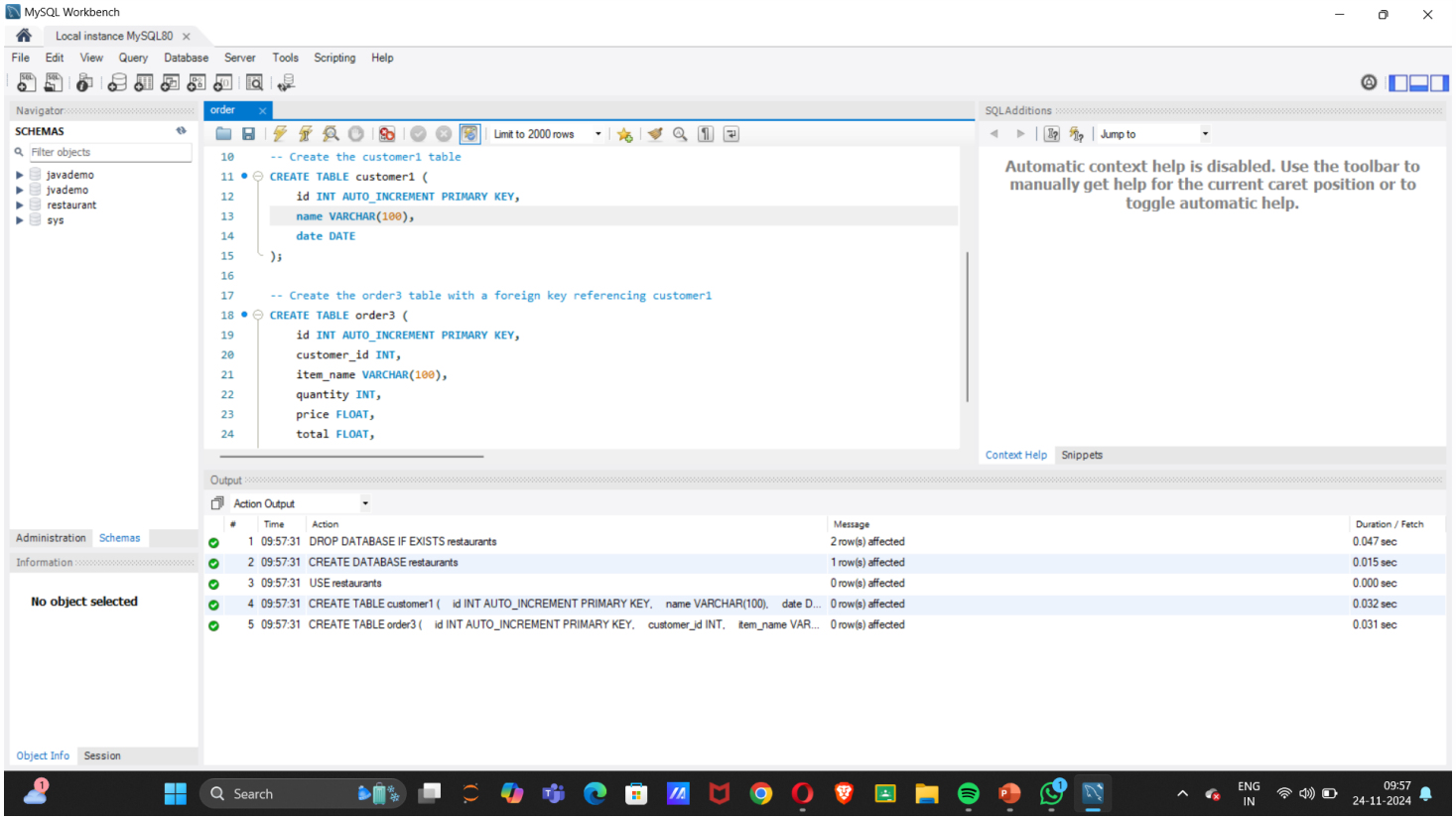
KONGU ENGINEERING COLLEGE

BILL RECEIPT:



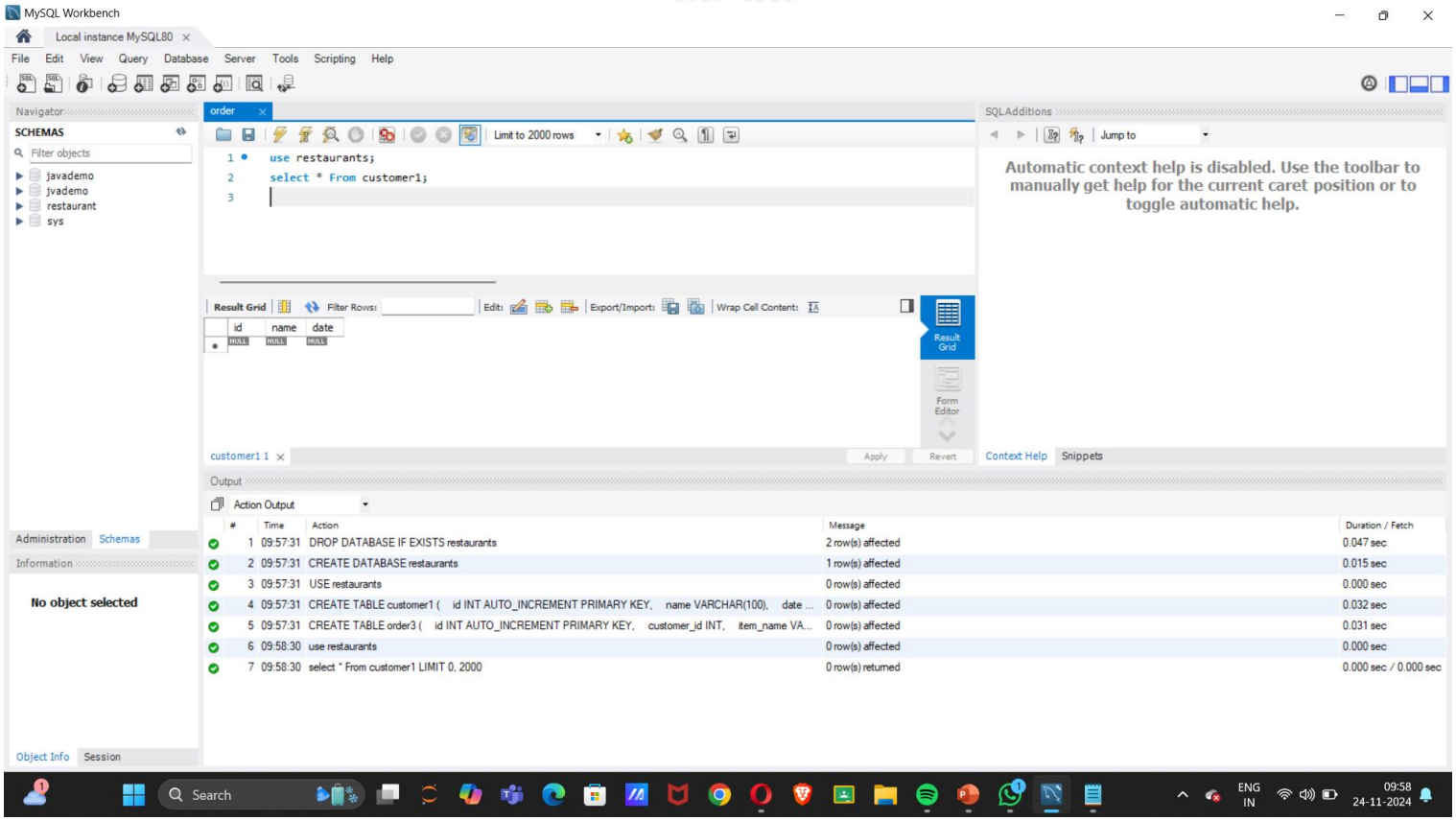
KONGU ENGINEERING COLLEGE

DATABASE CODE:



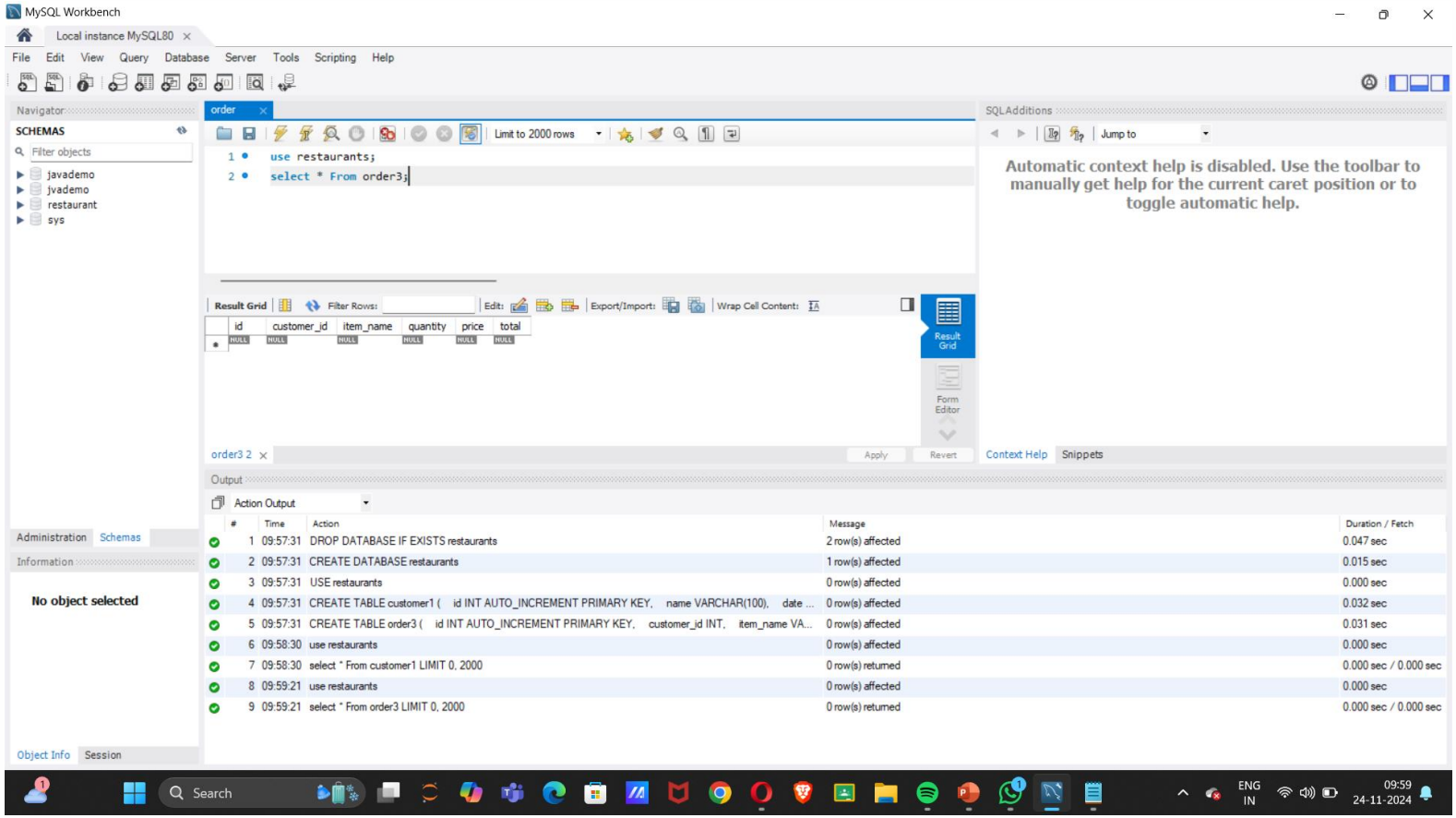
KONGU ENGINEERING COLLEGE

CUSTOMER TABLE:



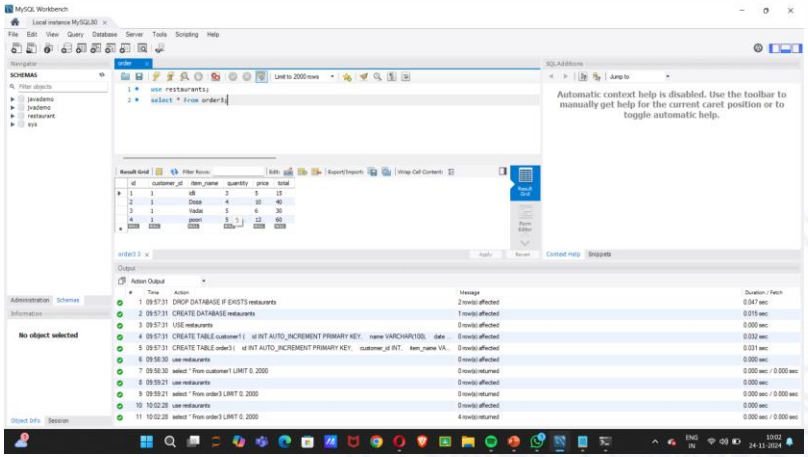
KONGU ENGINEERING COLLEGE

ORDER TABLE:

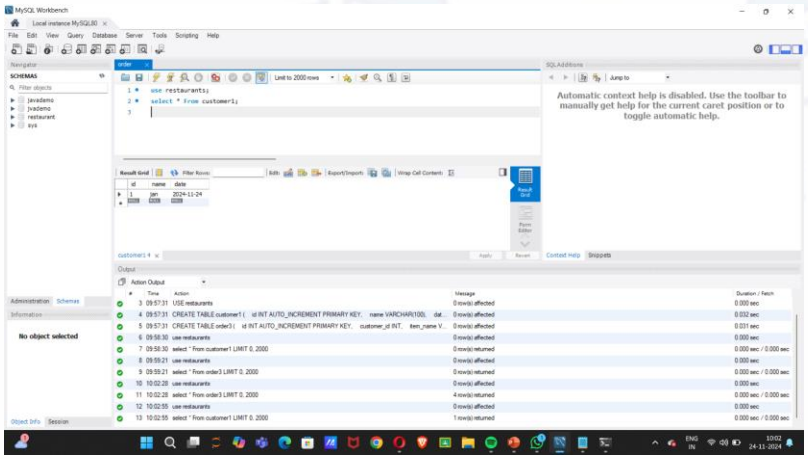


OUTPUT:

ORDER DB:

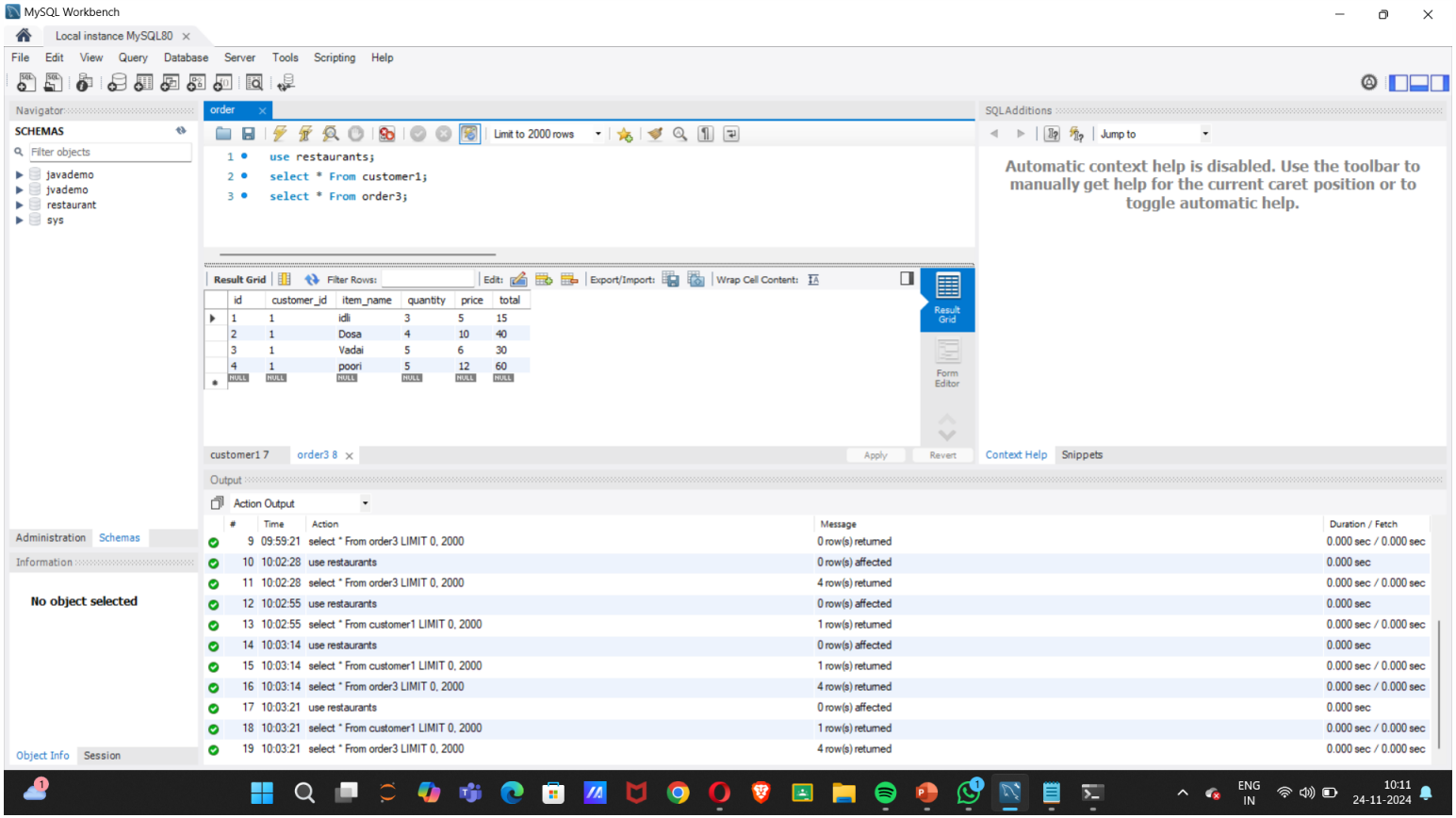


CUSTOMER DB:



KONGU ENGINEERING COLLEGE

OUTPUT IN DATABASE:



Conclusion

The Restaurant Bill System offers an efficient solution for managing customer details and order transactions using a database-driven approach. By automating the process of adding, updating, removing, and displaying customer information and orders, the system helps streamline the billing process. Integrating with MySQL ensures data integrity and scalability. The user-friendly flowchart and system design make it easier to handle multiple operations while ensuring accurate calculations and record management. This system ultimately contributes to faster service, improved customer experience, and reliable data storage for restaurant operations.

KONGU ENGINEERING COLLEGE

THANK YOU