

SIT103 DATABASE FUNDAMENTALS

MINIPROJECT PART 2

SUBMITTED BY – JASVEENA-224001588

1. Write SQL statements to create all tables in the final normalized ERD in Task 4.2C.

```
CUSTOMER: CREATE TABLE Customer (  
    Customer_ID INT AUTO_INCREMENT PRIMARY KEY,  
    Name VARCHAR(100) NOT NULL,  
    Age INT NOT NULL,  
    Email VARCHAR(100) UNIQUE NOT NULL,  
    Phone_Number VARCHAR(15) NOT NULL  
);
```

```
DRIVER: CREATE TABLE Driver (  
    Driver_ID INT AUTO_INCREMENT PRIMARY KEY,  
    Name VARCHAR(100) NOT NULL,  
    Email VARCHAR(100) UNIQUE NOT NULL,  
    Phone_Number VARCHAR(15) NOT NULL,  
    Car_Number VARCHAR(20) NOT NULL  
);
```

```
BOOKING : CREATE TABLE Booking (  
    Booking_ID INT AUTO_INCREMENT PRIMARY KEY,  
    Booking_Date DATE NOT NULL,  
    Current_Location VARCHAR(255) NOT NULL,  
    Destination_Location VARCHAR(255) NOT NULL,  
    Customer_ID INT,  
    Driver_ID INT,  
    FOREIGN KEY (Customer_ID) REFERENCES Customer(Customer_ID),  
    FOREIGN KEY (Driver_ID) REFERENCES Driver(Driver_ID)
```

);

PAYMENT : CREATE TABLE Payment (

Payment_ID INT AUTO_INCREMENT PRIMARY KEY,

Payment_Date DATE NOT NULL,

Amount DECIMAL(10, 2) NOT NULL,

Booking_ID INT,

FOREIGN KEY (Booking_ID) REFERENCES Booking(Booking_ID)

);

REVIEW : CREATE TABLE Review (

Review_ID INT AUTO_INCREMENT PRIMARY KEY,

Review_Date DATE NOT NULL,

Description TEXT,

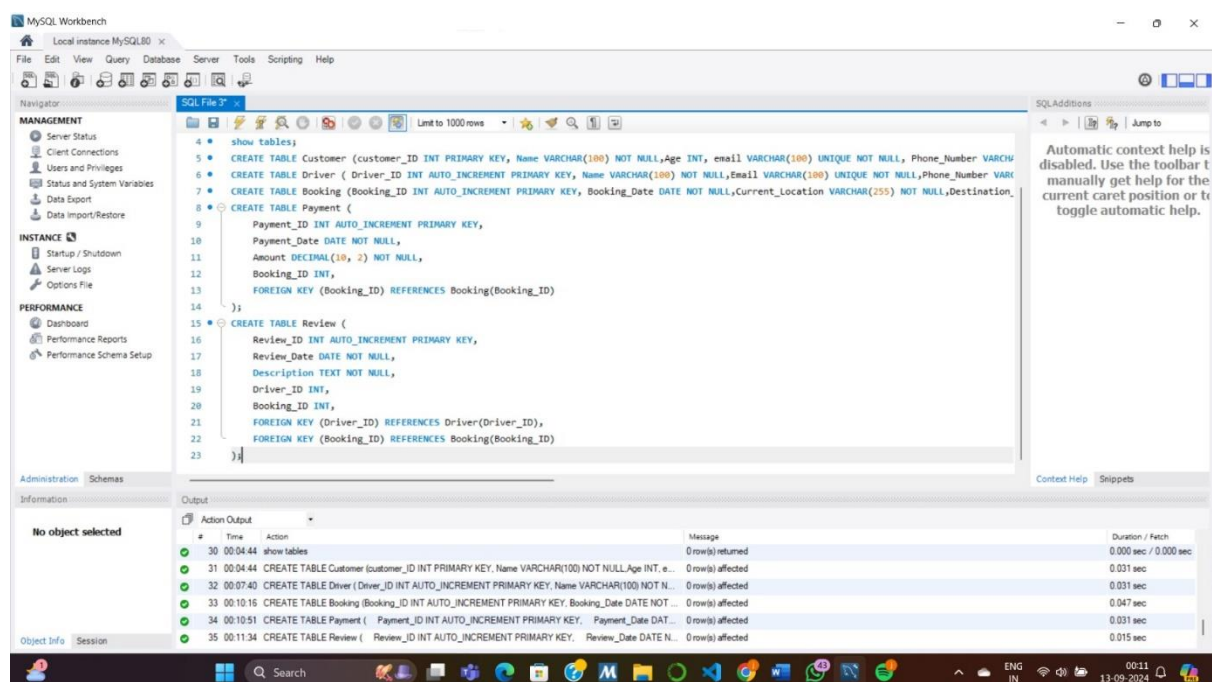
Driver_ID INT,

Booking_ID INT,

FOREIGN KEY (Driver_ID) REFERENCES Driver(Driver_ID),

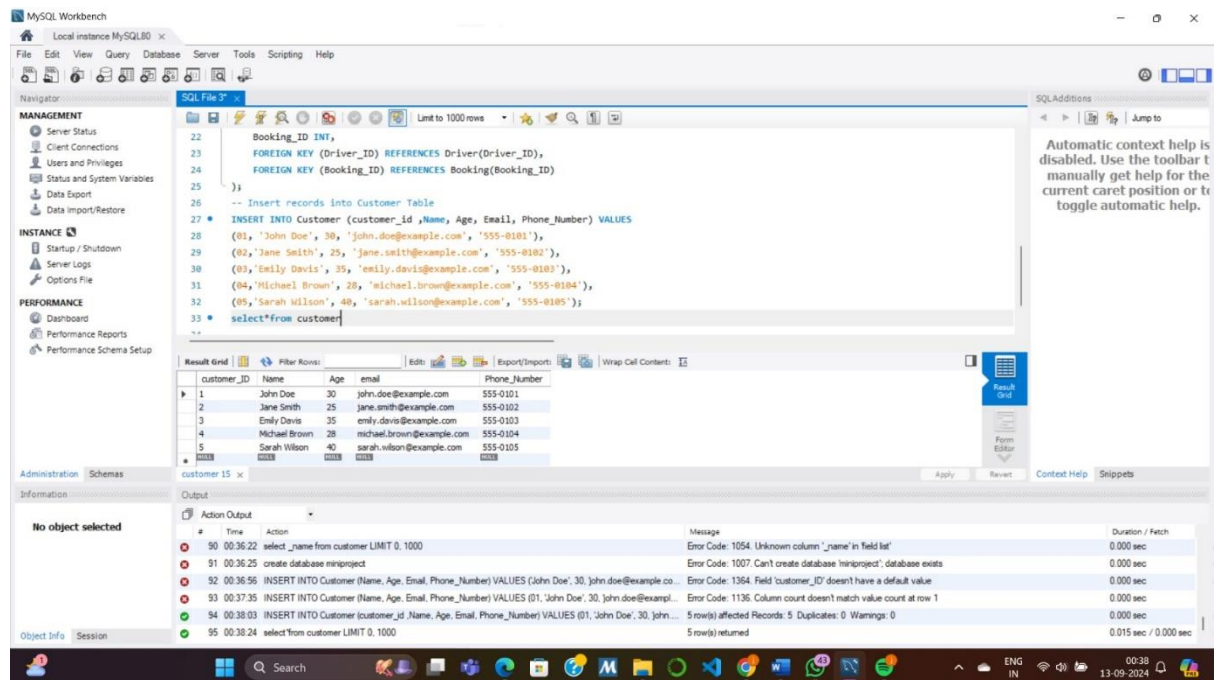
FOREIGN KEY (Booking_ID) REFERENCES Booking(Booking_ID)

);

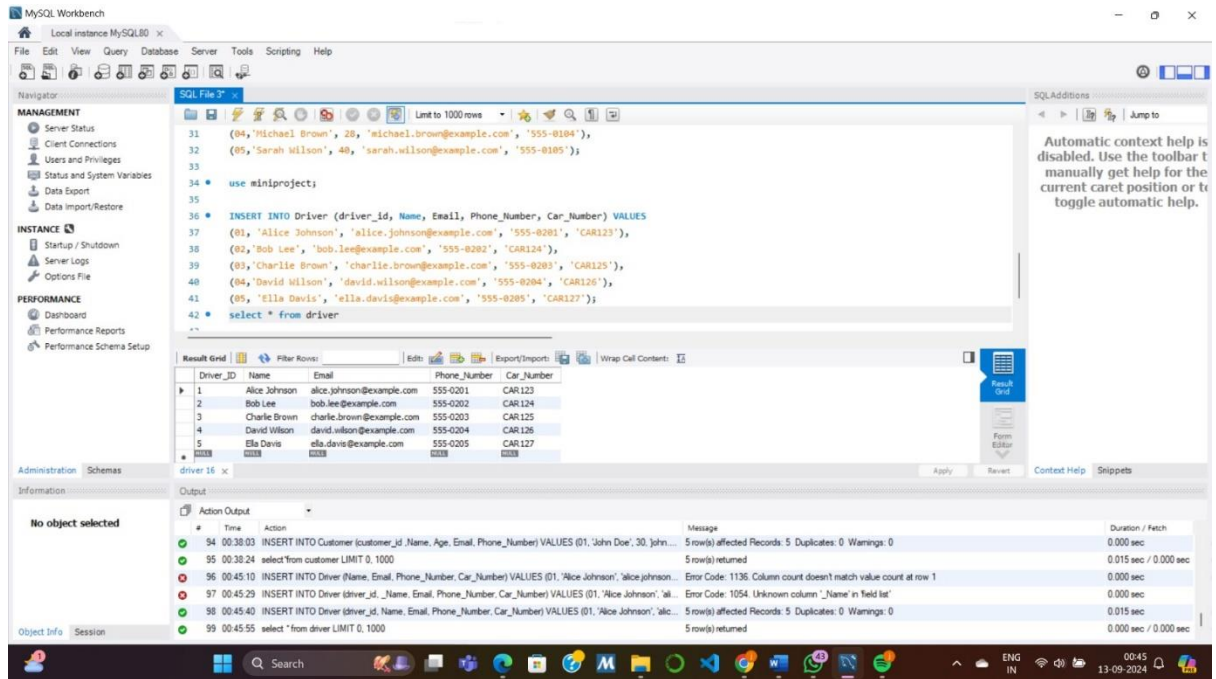


2. Insert at least FIVE records in each table using SQL.

CUSTOMER TABLE : INSERT INTO Customer (Name, Age, Email, Phone_Number) VALUES
('John Doe', 30, 'john.doe@example.com', '555-0101'),
('Jane Smith', 25, 'jane.smith@example.com', '555-0102'),
('Emily Davis', 35, 'emily.davis@example.com', '555-0103'),
('Michael Brown', 28, 'michael.brown@example.com', '555-0104'),
('Sarah Wilson', 40, 'sarah.wilson@example.com', '555-0105');



DRIVER TABLE : INSERT INTO Driver (Name, Email, Phone_Number, Car_Number) VALUES
('Alice Johnson', 'alice.johnson@example.com', '555-0201', 'CAR123'),
('Bob Lee', 'bob.lee@example.com', '555-0202', 'CAR124'),
('Charlie Brown', 'charlie.brown@example.com', '555-0203', 'CAR125'),
('David Wilson', 'david.wilson@example.com', '555-0204', 'CAR126'),
('Ella Davis', 'ella.davis@example.com', '555-0205', 'CAR127');



BOOKING TABLE : INSERT INTO Booking (Booking_Date, Current_Location, Destination_Location, Customer_ID, Driver_ID) VALUES

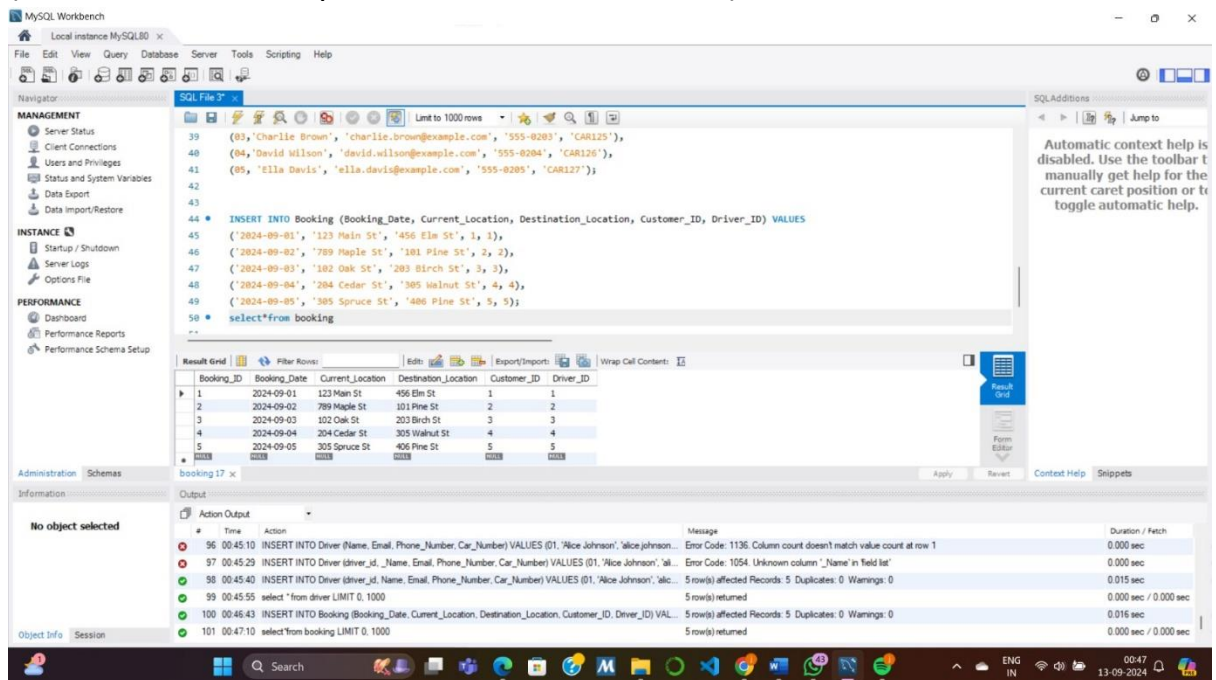
('2024-09-01', '123 Main St', '456 Elm St', 1, 1),

('2024-09-02', '789 Maple St', '101 Pine St', 2, 2),

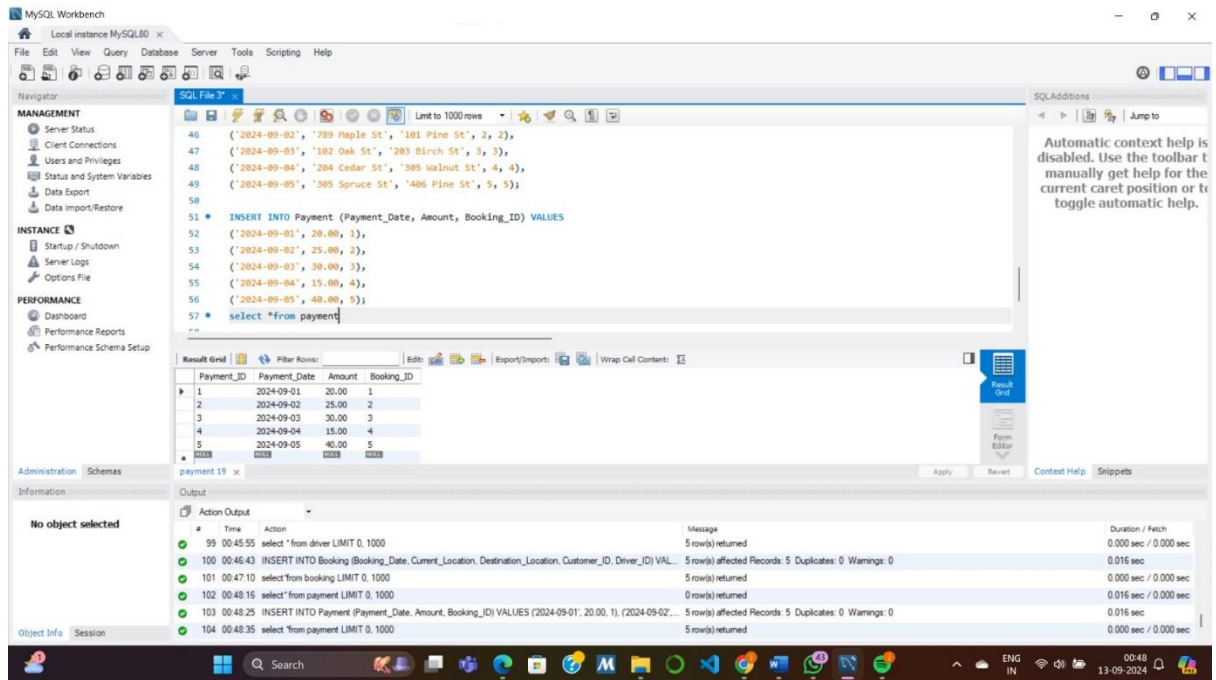
('2024-09-03', '102 Oak St', '203 Birch St', 3, 3),

('2024-09-04', '204 Cedar St', '305 Walnut St', 4, 4),

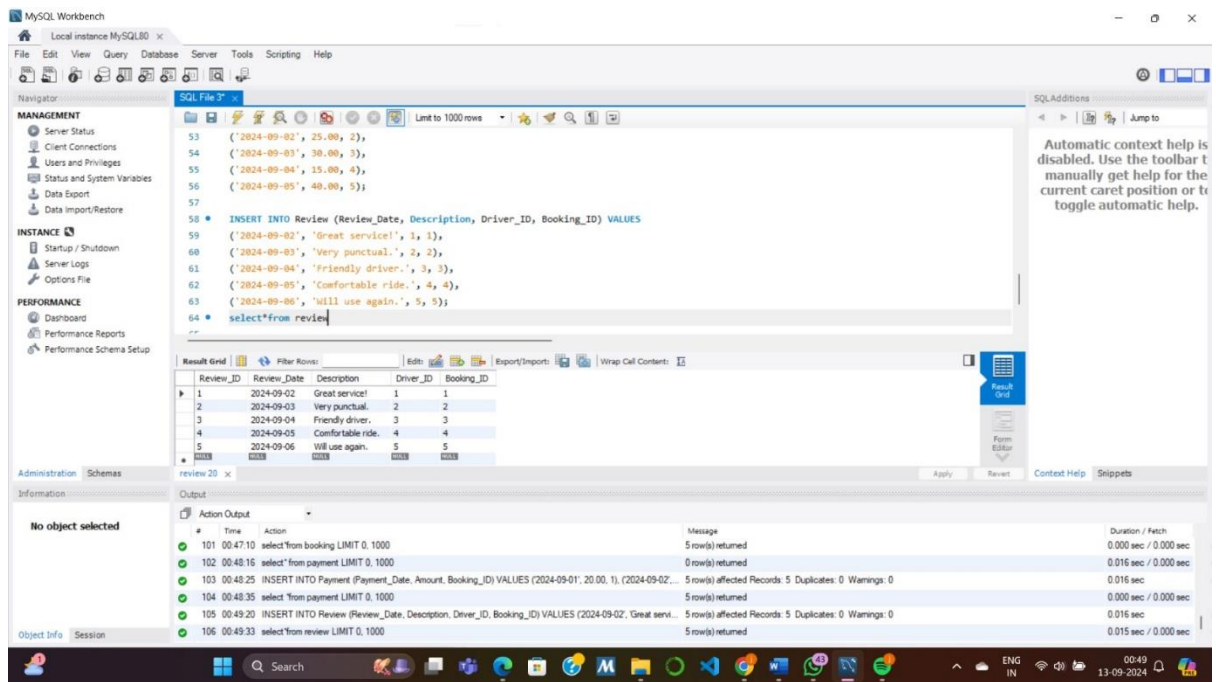
('2024-09-05', '305 Spruce St', '406 Pine St', 5, 5);



PAYMENT TABLE : INSERT INTO Payment (Payment_Date, Amount, Booking_ID) VALUES
('2024-09-01', 20.00, 1),
('2024-09-02', 25.00, 2),
('2024-09-03', 30.00, 3),
('2024-09-04', 15.00, 4),
('2024-09-05', 40.00, 5);



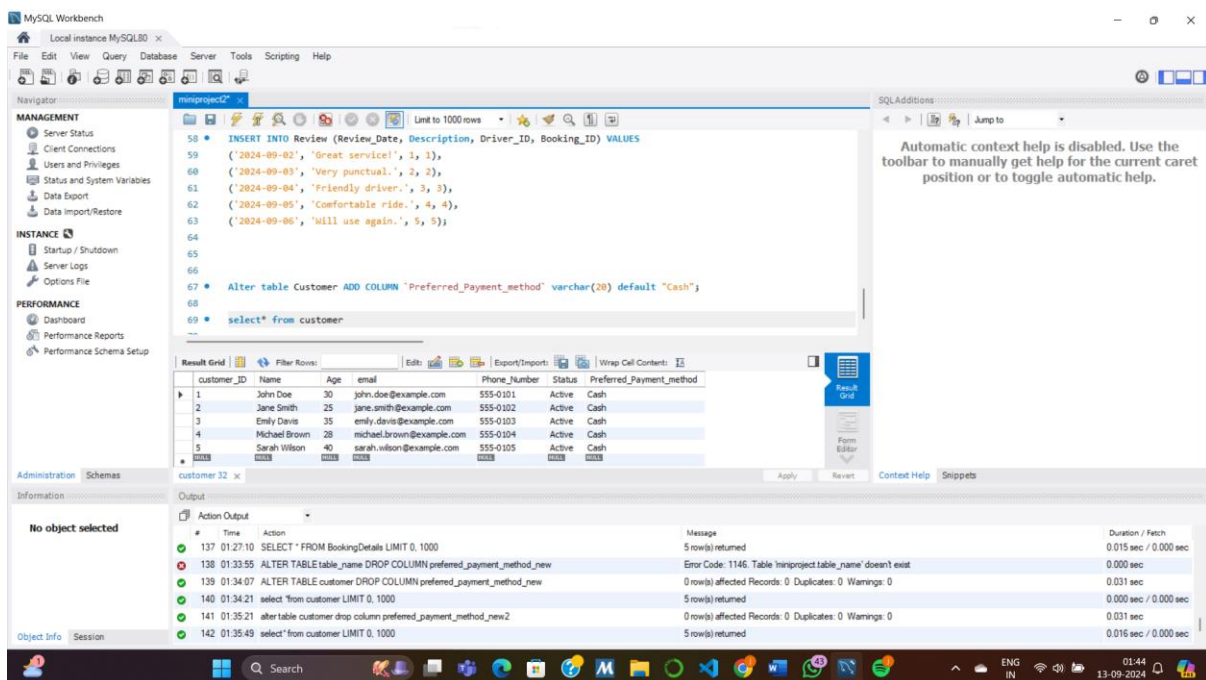
REVIEW TABLE : INSERT INTO Review (Review_Date, Description, Driver_ID, Booking_ID) VALUES
('2024-09-02', 'Great service!', 1, 1),
('2024-09-03', 'Very punctual.', 2, 2),
('2024-09-04', 'Friendly driver.', 3, 3),
('2024-09-05', 'Comfortable ride.', 4, 4),
('2024-09-06', 'Will use again.', 5, 5);



3. Write and run an SQL statement to add one additional column (attribute) in any one of the existing tables

with a default value.

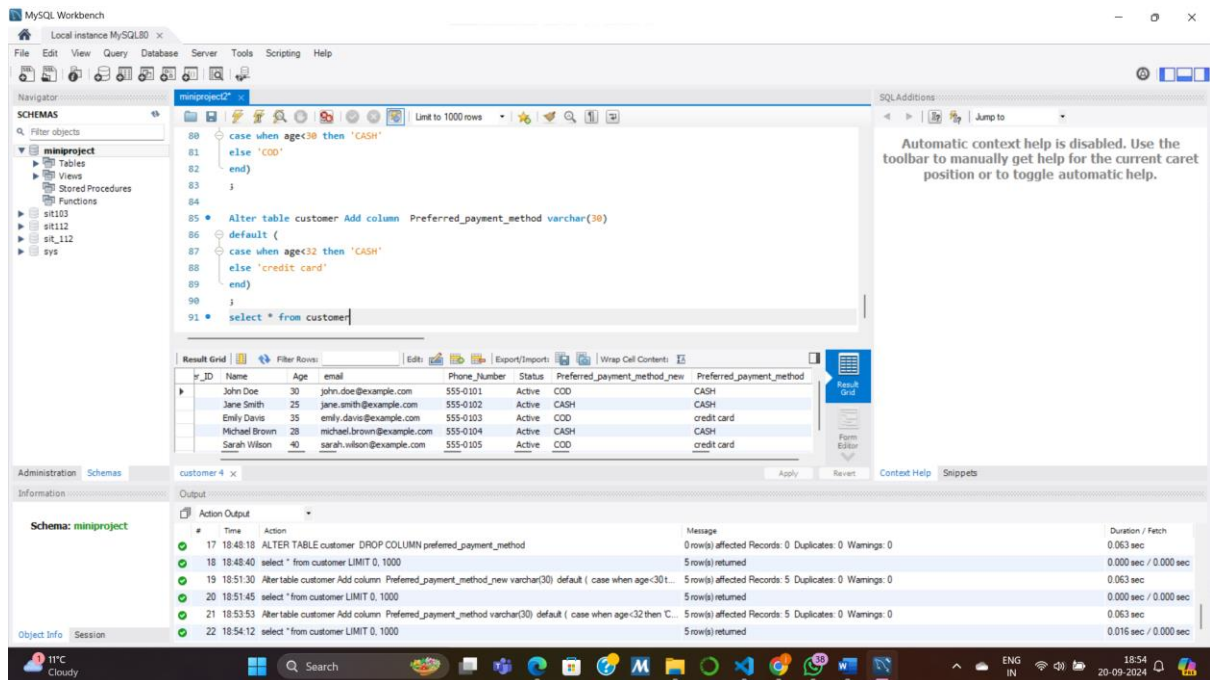
Alter table Customer ADD COLUMN `Preferred_Payment_method` varchar(20) default "Cash";



4. Write and run an SQL statement to update the default value of the newly added column to a different value

for certain rows based on a condition using any other column.

Alter table customer Add column Preferred_payment_method_new
varchar(30) default (case when age



5. In this section, you are required to write SQL queries to interact with the database you implemented. Answer

each SQL question in this section with the following:

- Write an SQL query to demonstrate the use of SELECT with INNER JOIN and ORDER BY.

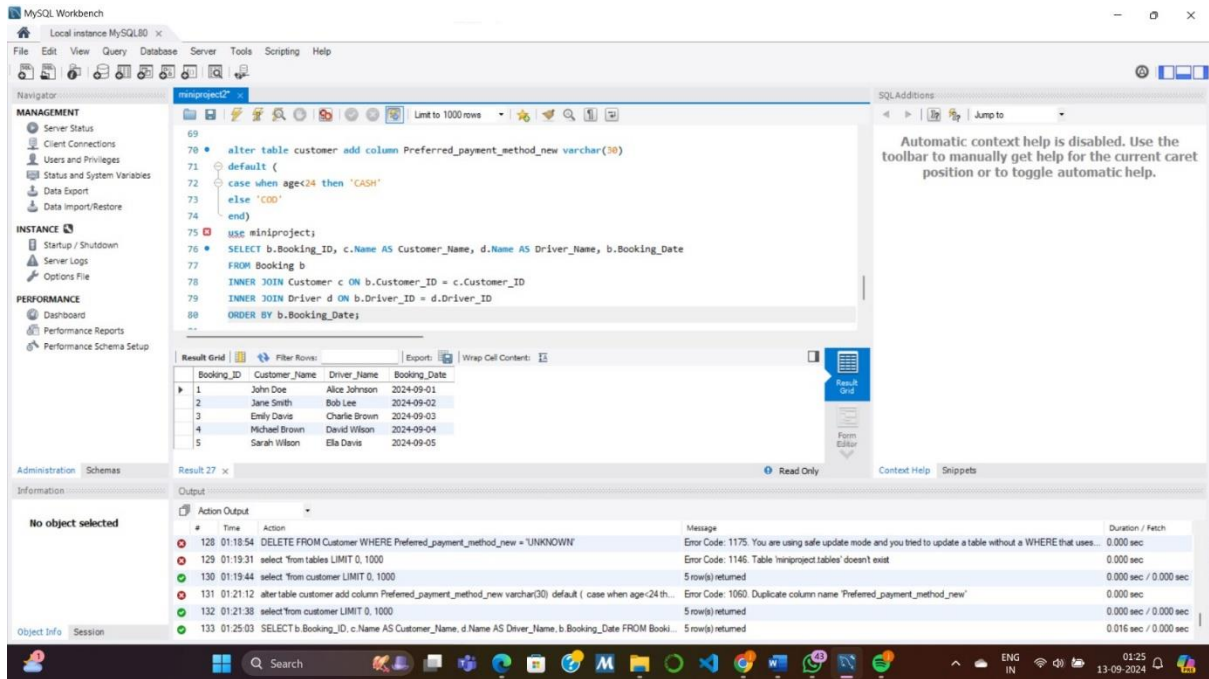
SELECT b.Booking_ID, c.Name AS Customer_Name, d.Name AS Driver_Name,
b.Booking_Date

FROM Booking b

INNER JOIN Customer c ON b.Customer_ID = c.Customer_ID

INNER JOIN Driver d ON b.Driver_ID = d.Driver_ID

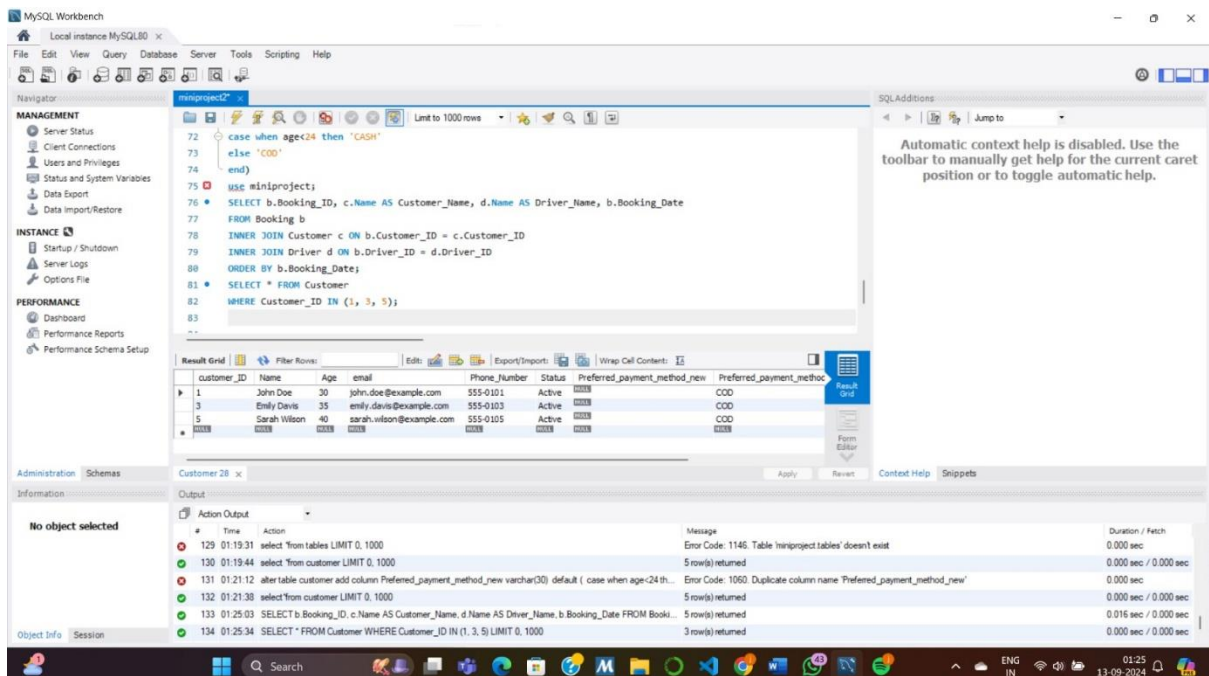
ORDER BY b.Booking_Date;



b) Write an SQL query to demonstrate the use of SELECT with WHERE and IN.

SELECT * FROM Customer

WHERE Customer_ID IN (1, 3, 5);

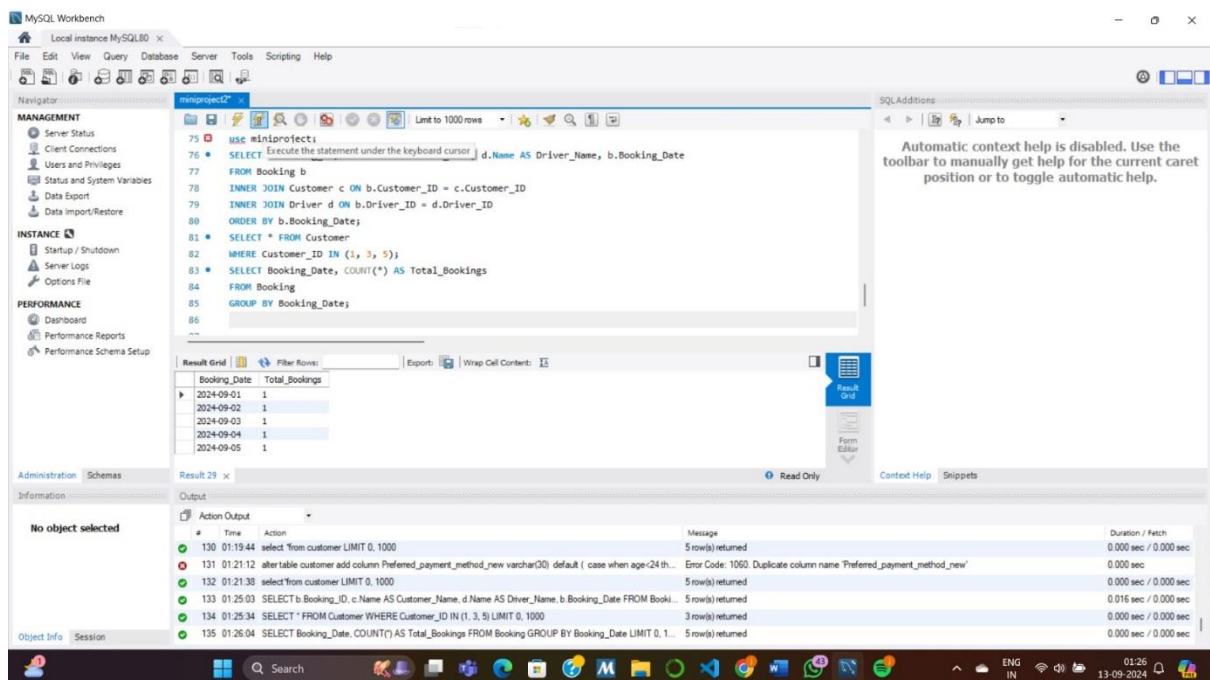


c) Write an SQL query to demonstrate the use of at least one DATE function.

SELECT Booking_Date, COUNT(*) AS Total_Bookings

FROM Booking

GROUP BY Booking_Date;



d) Write an SQL statement to create a VIEW using a SELECT statement with a JOIN. Provide the statement

to create the VIEW you want and demonstrate the output of the VIEW using 'SELECT * FROM <viewname>;'

CREATE VIEW BookingDetails AS

SELECT b.Booking_ID, b.Booking_Date, c.Name AS Customer_Name,
b.Current_Location, b.Destination_Location

FROM Booking b

INNER JOIN Customer c ON b.Customer_ID = c.Customer_ID;

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

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Schemas

Filter objects

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Tables

Views

Stored Procedures

Functions

sys1103

sys1112

sys1112

sys

SQL Editor

miniproject

63 ('2024-09-06', 'Will use again.', 5, 5);

64

65

66

67 Alter table Customer ADD COLUMN 'Preferred_Payment_method' varchar(20) default 'Cash';

68

69 use miniproject;

70 CREATE VIEW BookingDetails AS

71 SELECT b.Booking_ID, b.Booking_Date, c.Name AS Customer_Name, b.Current_Location, b.Destination_Location

72 FROM Booking b

73 INNER JOIN Customer c ON b.Customer_ID = c.Customer_ID;

74 select * from bookingdetails

Result Grid

Filter Rows: Export View Cell Content

Booking_ID	Booking_Date	Customer_Name	Current_Location	Destination_Location
1	2024-09-01	John Doe	123 Main St	456 Elm St
2	2024-09-02	Jane Smith	789 Maple St	101 Pine St
3	2024-09-03	Emily Davis	102 Oak St	203 Birch St
4	2024-09-04	Michael Brown	204 Cedar St	305 Walnut St
5	2024-09-05	Sarah Wilson	305 Spruce St	406 Pine St

Administration Schemas bookingdetails 1 x

Information

Schema: miniproject

Output

Action Output

#	Time	Action	Message	Duration / Fetch
10	14:53:18	CREATE VIEW BookingDetails AS SELECT b.Booking_ID, b.Booking_Date, c.Name AS Customer_Name, b...	Error Code: 1046. No database selected Select the default DB to be used by double-clicking its name in the SC...	0.000 sec
11	14:53:43	CREATE VIEW BookingDetails AS SELECT b.Booking_ID, b.Booking_Date, c.Name AS Customer_Name, b...	Error Code: 1046. No database selected Select the default DB to be used by double-clicking its name in the SC...	0.000 sec
12	14:54:05	CREATE VIEW BookingDetails AS SELECT b.Booking_ID, b.Booking_Date, c.Name AS Customer_Name, b...	Error Code: 1050. Table 'BookingDetails' already exists	0.016 sec
13	14:54:13	CREATE VIEW BookingDetails AS SELECT b.Booking_ID, b.Booking_Date, c.Name AS Customer_Name, b...	Error Code: 1050. Table 'BookingDetails' already exists	0.016 sec
14	14:54:21	CREATE VIEW BookingDetails AS SELECT b.Booking_ID, b.Booking_Date, c.Name AS Customer_Name, b...	Error Code: 1050. Table 'BookingDetails' already exists	0.000 sec
15	14:55:09	select * from bookingdetails LIMIT 0, 1000	5 row(s) returned	0.000 sec / 0.000 sec

Object Info Session

11°C Cloudy

Search

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14:55

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