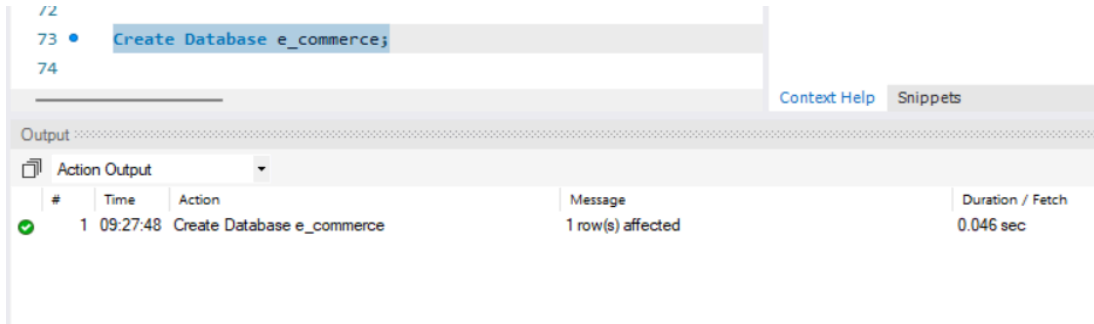


# SQL Assignment

## 1. Create Database e\_commerce

Query: Create Database e\_commerce;



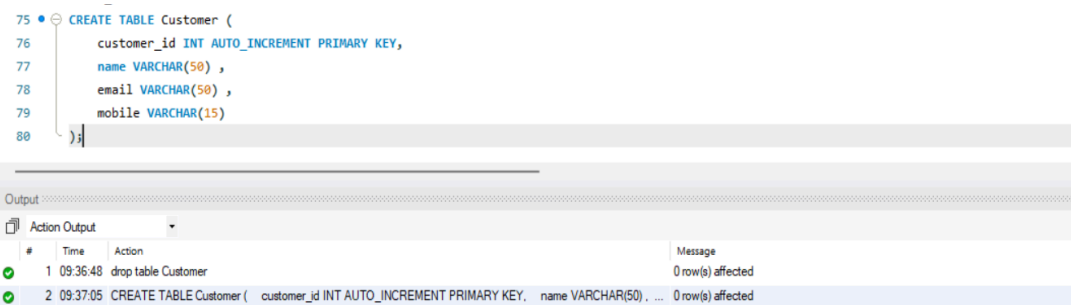
## 2. Create following Tables:

Customers:

- a. customer\_id - int auto-increment primary key
- b. name - varchar(50)
- c. email - varchar(50)
- d. mobile - varchar(15)

Query: use e\_commerce;

```
CREATE TABLE Customer (  
    customer_id INT AUTO_INCREMENT PRIMARY KEY,  
    name VARCHAR(50) ,  
    email VARCHAR(50) ,  
    mobile VARCHAR(15)  
);
```



Products:

- a. id - int
- b. name - varchar(50) not null
- c. description - varchar(200)
- d. price - decimal(10, 2) not null

e. category - varchar(50)

Query: CREATE TABLE Products (  
id INT ,  
name VARCHAR(50) NOT NULL,  
description VARCHAR(200),  
price DECIMAL(10,2) NOT NULL,  
category VARCHAR(50)  
);

The screenshot shows a SQL IDE with a query editor and an output window. The query editor contains the following SQL code:

```
82 CREATE TABLE Products (  
83     id INT ,  
84     name VARCHAR(50) NOT NULL,  
85     description VARCHAR(200),  
86     price DECIMAL(10,2) NOT NULL,  
87     category VARCHAR(50)  
88 );  
89
```

The output window shows the execution results of the query:

#	Time	Action	Message	Duration / Fetch
1	09:36:48	drop table Customer	0 row(s) affected	0.046 sec
2	09:37:05	CREATE TABLE Customer ( customer_id INT AU...	0 row(s) affected	0.031 sec
3	09:41:48	CREATE TABLE Products ( id INT , name VAR...	0 row(s) affected	0.046 sec

### 3.Modify Tables(using Alter keyword):

a. Add not null on name and email in the Customers table

Query : ALTER TABLE Customer MODIFY COLUMN name VARCHAR(50) NOT NULL;

The screenshot shows a SQL IDE with a query editor and an output window. The query editor contains the following SQL code:

```
92 ALTER TABLE Customer MODIFY COLUMN email VARCHAR(50) NOT NULL;
```

The output window shows the execution results of the query:

#	Time	Action	Message	Duration / Fetch
1	09:55:14	ALTER TABLE Customer MODIFY COLUMN email V...	0 row(s) affected Records: 0 Duplicates: 0 Warning...	0.078 sec

b. Add unique key on email in the Customers table

Query: ALTER TABLE Customer MODIFY COLUMN email VARCHAR(50) UNIQUE;

The screenshot shows a SQL IDE with a query editor and an output window. The query editor contains the following SQL code:

```
93 ALTER TABLE Customer MODIFY COLUMN email VARCHAR(50) UNIQUE;  
94 SHOW CREATE TABLE Customer;
```

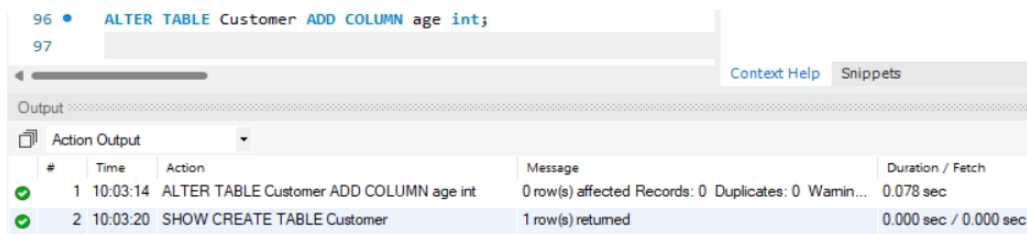
The output window shows the execution results of the query:

#	Time	Action	Message	Duration / Fetch
1	09:55:14	ALTER TABLE Customer MODIFY COLUMN email V...	0 row(s) affected Records: 0 Duplicates: 0 Warning...	0.078 sec

The screenshot also shows the 'Form Editor' tab with the 'Table: Customer' and the 'Create Table' button. The 'Create Table' button is highlighted, and the 'Table: Customer' is selected.

- c. Add column age in the Customers table

Query: ALTER TABLE Customer ADD COLUMN age int;



The screenshot shows a SQL execution window with two queries. The first query, 'ALTER TABLE Customer ADD COLUMN age int;', is highlighted. The output table below shows two rows of execution details.

#	Time	Action	Message	Duration / Fetch
1	10:03:14	ALTER TABLE Customer ADD COLUMN age int	0 row(s) affected Records: 0 Duplicates: 0 Wamin...	0.078 sec
2	10:03:20	SHOW CREATE TABLE Customer	1 row(s) returned	0.000 sec / 0.000 sec

- d. Change column name from id to product\_id in the Products table;

Query : ALTER TABLE Products RENAME COLUMN id TO product\_id;



The screenshot shows a SQL execution window with two queries. The first query, 'ALTER TABLE Products RENAME COLUMN id TO product\_id;', is highlighted. The second query, 'SHOW CREATE TABLE Products;', is also shown. The output table below shows the execution details for both queries.

#	Time	Action	Message	Duration / Fetch
1	10:03:14	ALTER TABLE Products RENAME COLUMN id TO product_id;	0 row(s) affected Records: 0 Duplicates: 0 Wamin...	0.078 sec
2	10:03:20	SHOW CREATE TABLE Products;	1 row(s) returned	0.000 sec / 0.000 sec

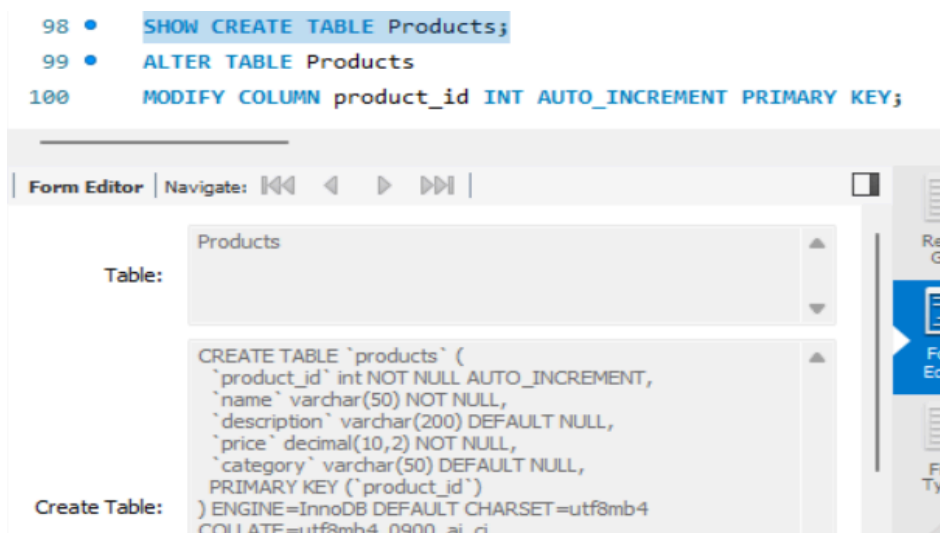
The 'Create Table' output for the second query is as follows:

```
CREATE TABLE `products` (  
  `product_id` int DEFAULT NULL,  
  `name` varchar(50) NOT NULL,  
  `description` varchar(200) DEFAULT NULL,  
  `price` decimal(10,2) NOT NULL,  
  `category` varchar(50) DEFAULT NULL,  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4  
COLLATE=utf8mb4_0900_ai_ci
```

- e. Add primary key and auto increment on product\_id in the Products table

Query: ALTER TABLE Products

MODIFY COLUMN product\_id INT AUTO\_INCREMENT PRIMARY KEY;



The screenshot shows a SQL execution window with three queries. The first query, 'SHOW CREATE TABLE Products;', is highlighted. The second query, 'ALTER TABLE Products', is also shown. The third query, 'MODIFY COLUMN product\_id INT AUTO\_INCREMENT PRIMARY KEY;', is also shown. The output table below shows the execution details for all three queries.

#	Time	Action	Message	Duration / Fetch
1	10:03:14	SHOW CREATE TABLE Products;	1 row(s) returned	0.000 sec / 0.000 sec
2	10:03:20	ALTER TABLE Products	0 row(s) affected Records: 0 Duplicates: 0 Wamin...	0.078 sec
3	10:03:20	MODIFY COLUMN product_id INT AUTO_INCREMENT PRIMARY KEY;	0 row(s) affected Records: 0 Duplicates: 0 Wamin...	0.078 sec

The 'Create Table' output for the first query is as follows:

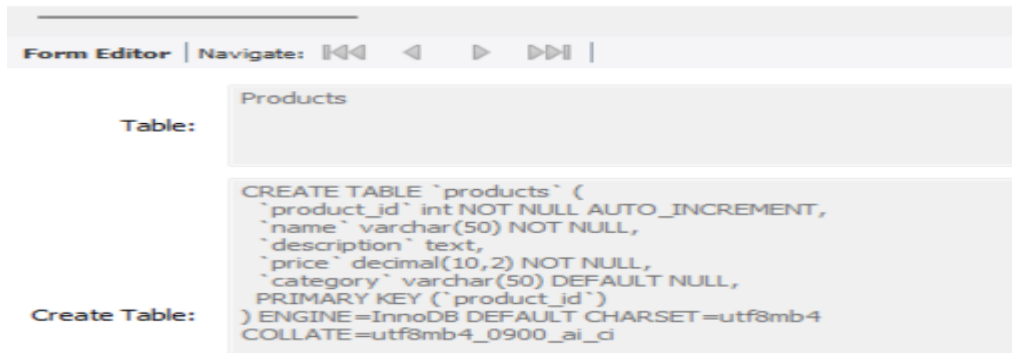
```
CREATE TABLE `products` (  
  `product_id` int NOT NULL AUTO_INCREMENT,  
  `name` varchar(50) NOT NULL,  
  `description` varchar(200) DEFAULT NULL,  
  `price` decimal(10,2) NOT NULL,  
  `category` varchar(50) DEFAULT NULL,  
  PRIMARY KEY (`product_id`)  
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4  
COLLATE=utf8mb4_0900_ai_ci
```

- f. Change datatype of description from varchar to text in the Products table.

Query: ALTER TABLE Products

MODIFY COLUMN description TEXT;

```
103 • ALTER TABLE Products
104     MODIFY COLUMN description TEXT;
105 • SHOW CREATE TABLE Products;
```



#### 4. Create table Order:

- order\_id - int auto-increment primary key
- customer\_id - int -foreign key
- product\_id - int
- quantity - int not null,
- order\_date - date not null,
- status - enum(Pending, Success, Cancel),
- payment\_method - enum(Credit, Debit, UPI),
- total\_amount - decimal(10, 2) not null

-Order is reserved keyword in Sql , So to avoid conflict with reserved word backticks (`) are used to treat as it identifier

```
CREATE TABLE `Order` (
  order_id INT AUTO_INCREMENT PRIMARY KEY,
  customer_id INT,
  product_id INT,
  quantity INT NOT NULL,
  order_date DATE NOT NULL,
  status ENUM('Pending', 'Success', 'Cancel'),
  payment_method ENUM('Credit', 'Debit', 'UPI'),
  total_amount DECIMAL(10,2) NOT NULL,
  FOREIGN KEY (customer_id) REFERENCES Customer(customer_id)
);
```

```
118 • SHOW CREATE TABLE `Order`;
119
Form Editor | Navigate: ⏮ ⏪ ⏩ ⏭ |
Create Table:
CREATE TABLE `order` (
  `order_id` int NOT NULL AUTO_INCREMENT,
  `customer_id` int DEFAULT NULL,
  `product_id` int DEFAULT NULL,
  `quantity` int NOT NULL,
  `order_date` date NOT NULL,
  `status` enum('Pending','Success','Cancel') DEFAULT NULL,
  `payment_method` enum('Credit','Debit','UPI') DEFAULT NULL,
  `total_amount` decimal(10,2) NOT NULL,
  PRIMARY KEY (`order_id`),
  KEY `customer_id` (`customer_id`),
  CONSTRAINT `order_ibfk_1` FOREIGN KEY (`customer_id`) REFERENCES `customer` (`customer_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8mb4 COLLATE=utf8mb4_0900_ai_ci
```

## 5.Modify Orders Table(using Alter keyword):

- a. Change table name Order -> Orders

Query: Alter table `Order` Rename to Orders;

```
136 • Alter table `Order` Rename to Orders;
137
```

Output

Action Output

#	Time	Action	Message
✓ 1	22:03:08	Alter table `Order` Rename to Orders	0 row(s) affected

- b. Set default value pending in status.

Query: Alter table Orders alter Column status set Default 'Pending';

-By using the ALTER keyword, there is no need to redefine the data type again.

```
138 • alter table Orders alter Column status set Default 'Pending';
```

Output

Action Output

#	Time	Action	Message
✓ 1	22:03:08	Alter table `Order` Rename to Orders	0 row(s) affected
✓ 2	23:34:30	alter table Orders alter Column status set Default 'Pending'	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0

- c. Modify payment\_method ENUM to add one more value: 'COD'

Query: Alter table Orders

Modify Column payment\_method ENUM('Credit', 'Debit', 'UPI', 'COD');

```
140 • Alter table Orders
141 Modify Column payment_method ENUM('Credit', 'Debit', 'UPI', 'COD');
142
```

Output

#	Time	Action	Message
1	23:57:18	Alter table Orders Modify Column payment_method ENUM('Credit', 'Debit', 'UPI', 'COD')	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0

- d. Make product id as foreign key

Query: Alter table Orders

Add FOREIGN KEY (product\_id) REFERENCES Products(product\_id);

```
143 • Alter table Orders
144 Add FOREIGN KEY (product_id) REFERENCES Products(product_id) ;
145
146
```

Output

#	Time	Action	Message
1	00:10:02	Alter table Orders Add FOREIGN KEY (product_id) REFERENCES Products(product_id)	0 row(s)

## 6. Insert 20 sample records in all the tables.

**Customer table:** INSERT INTO Customer (name, email, mobile, age) VALUES

('Pakhi Gupta', 'pakhi@example.com', '9876543210', 21),  
( 'Rekha Gupta', 'rekha@example.com', '9876543211', 25),  
( 'Rahul Verma', 'rahul@example.com', '9876543212', 20),  
( 'Sneha Patel', 'sneha@example.com', '9876543213', 23),  
( 'Vikram Singh', 'vikram@example.com', '9876543214', 31),  
( 'Neha Gupta', 'neha@example.com', '9876543215', 19),  
( 'Arjun Patel', 'arjun@example.com', '9876543216', 22),  
( 'Pooja Deshmukh', 'pooja@example.com', '9876543217', 26),  
( 'Sandeep Seth', 'sandeep@example.com', '9876543218', 45),  
( 'Meera Sharma', 'meera@example.com', '9876543219', 31),  
( 'Rohan Misra', 'rohan@example.com', '9876543220', 22),  
( 'Divya Joshi', 'divya@example.com', '9876543221', 24),  
( 'Karan Mehta', 'karan@example.com', '9876543222', 35),  
( 'Anjali Saxena', 'anjali@example.com', '9876543223', 20),

('Siddharth Devradi', 'siddharth@example.com', '9876543224', 16),  
('Tanya Choudhary', 'tanya@example.com', '9876543225', 27),  
('Amit Sharma', 'amit@example.com', '9876543226', 30),  
('Ritika Bansal', 'ritika@example.com', '9876543227', 20),  
('Harshit Aggarwal', 'harshit@example.com', '9876543228', 28),  
('Swati Mishra', 'swati@example.com', '9876543229', 27);

The screenshot shows a database query editor window titled "Query 1". The query is an SQL INSERT statement into a table named "Customer". The query is as follows:

```
144 • INSERT INTO Customer (name, email, mobile, age) VALUES
145 ('Pakhi Gupta', 'pakhi@example.com', '9876543210', 21),
146 ('Rekha Gupta', 'rekha@example.com', '9876543211', 25),
147 ('Rahul Verma', 'rahul@example.com', '9876543212', 20),
148 ('Sneha Patel', 'sneha@example.com', '9876543213', 23),
149 ('Vikram Singh', 'vikram@example.com', '9876543214', 31),
150 ('Neha Gupta', 'neha@example.com', '9876543215', 19),
151 ('Arjun Patel', 'arjun@example.com', '9876543216', 22),
152 ('Pooja Deshmukh', 'pooja@example.com', '9876543217', 26),
153 ('Sandeep Seth', 'sandeep@example.com', '9876543218', 45),
154 ('Meera Sharma', 'meera@example.com', '9876543219', 31),
155 ('Rohan Misra', 'rohan@example.com', '9876543220', 22),
156 ('Divya Joshi', 'divya@example.com', '9876543221', 24),
157 ('Karan Mehta', 'karan@example.com', '9876543222', 35),
158 ('Anjali Saxena', 'anjali@example.com', '9876543223', 20),
159 ('Siddharth Devradi', 'siddharth@example.com', '9876543224', 16),
160 ('Tanya Choudhary', 'tanya@example.com', '9876543225', 27),
161 ('Amit Sharma', 'amit@example.com', '9876543226', 30),
162 ('Ritika Bansal', 'ritika@example.com', '9876543227', 20),
163 ('Harshit Aggarwal', 'harshit@example.com', '9876543228', 28),
164 ('Swati Mishra', 'swati@example.com', '9876543229', 27);
```

Below the query editor, the "Output" section shows the execution results. The "Action Output" tab is selected, displaying a table with the following data:

#	Time	Action	Message
1	10:48:01	INSERT INTO Customer (name, email, mobile, age) VALUES ('Pakhi Gupta', 'pakhi@example.com', '9876543210', 21), ('Rekha Gupta', 'rekha@example.com', '9876543211', 25), ('Rahul Verma', 'rahul@example.com', '9876543212', 20), ('Sneha Patel', 'sneha@example.com', '9876543213', 23), ('Vikram Singh', 'vikram@example.com', '9876543214', 31), ('Neha Gupta', 'neha@example.com', '9876543215', 19), ('Arjun Patel', 'arjun@example.com', '9876543216', 22), ('Pooja Deshmukh', 'pooja@example.com', '9876543217', 26), ('Sandeep Seth', 'sandeep@example.com', '9876543218', 45), ('Meera Sharma', 'meera@example.com', '9876543219', 31), ('Rohan Misra', 'rohan@example.com', '9876543220', 22), ('Divya Joshi', 'divya@example.com', '9876543221', 24), ('Karan Mehta', 'karan@example.com', '9876543222', 35), ('Anjali Saxena', 'anjali@example.com', '9876543223', 20), ('Siddharth Devradi', 'siddharth@example.com', '9876543224', 16), ('Tanya Choudhary', 'tanya@example.com', '9876543225', 27), ('Amit Sharma', 'amit@example.com', '9876543226', 30), ('Ritika Bansal', 'ritika@example.com', '9876543227', 20), ('Harshit Aggarwal', 'harshit@example.com', '9876543228', 28), ('Swati Mishra', 'swati@example.com', '9876543229', 27);	20 row(s) affected Records: 20 Duplicates: 0 Warnings:

**Products Table:** INSERT INTO Orders (customer\_id, product\_id, quantity, order\_date, status, payment\_method, total\_amount) VALUES (2, 4, 1, '2025-02-10', 'Success', 'UPI', 40), (5, 2, 2, '2025-02-11', 'Pending', 'Credit', 1200), (10, 6, 1, '2025-02-12', 'Cancel', 'Debit', 1000), (1, 8, 1, '2025-02-10', 'Success', 'COD', 300), (3, 10, 2, '2025-02-13', 'Pending', 'UPI', 300), (7, 12, 1, '2025-02-14', 'Success', 'Credit', 900), (6, 14, 1, '2025-02-15', 'Success', 'Debit', 250), (8, 18, 3, '2025-02-16', 'Cancel', 'UPI', 150), (9, 20, 1, '2025-02-10', 'Pending', 'COD', 180), (4, 17, 1, '2025-02-11', 'Success', 'Debit', 130), (15, 1, 1, '2025-02-12', 'Pending', 'UPI', 800), (12, 7, 1, '2025-02-13', 'Success', 'COD', 850), (11, 9, 1, '2025-02-14', 'Success', 'Debit', 200), (14, 15, 1, '2025-02-15', 'Pending', 'UPI', 700), (18, 5, 1, '2025-02-16', 'Cancel', 'Credit', 75), (13, 13, 1, '2025-02-10', 'Success', 'Debit', 1100), (20, 3, 2, '2025-02-11', 'Pending', 'UPI', 240), (16, 19, 1, '2025-02-12', 'Success', 'COD', 70), (17, 11, 1, '2025-02-13', 'Pending', 'Credit', 1200), (19, 16, 2, '2025-02-17', 'Success', 'Debit', 160);

The screenshot shows a SQL IDE interface. The query editor contains a list of 20 product insertions into a table named 'Products'. The products include various electronics, appliances, and clothing items with their respective prices and categories. The output window shows the execution results of several database actions, including altering table columns, creating a table, renaming a table, and inserting data into the 'Products' table.

#	Time	Action	Message	Duration
15	01:04:36	ALTER TABLE Products MODIFY COLUMN description TEXT	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.07
16	01:04:48	CREATE TABLE `Order` ( `order_id` INT AUTO_INCREMENT PRIMARY KEY, `customer_id` INT, `product_id` INT, `quantity` INT, `order_date` DATE, `status` VARCHAR(20), `payment_method` VARCHAR(20), `total_amount` DECIMAL(10,2))	0 row(s) affected	0.03
17	01:04:58	Alter table `Order` Rename to Orders	0 row(s) affected	0.03
18	01:05:05	Alter table Orders alter Column status set Default 'Pending'	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.01
19	01:05:10	Alter table Orders Modify Column payment_method ENUM('Credit', 'Debit', 'UPI', 'COD')	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0	0.01
20	01:05:46	INSERT INTO Products (name, description, price, category) VALUES('Laptop', '15 laptop', 800, 'Electronics'), ('Smartphone', 'Latest smartphone', 600, 'Electronics'), ('Headphones', 'Noise-canceling headphones', 120, 'Electronics'), ('Mouse', 'Wired mouse', 40, 'Electronics'), ('Keyboard', 'Gaming keyboard', 75, 'Electronics'), ('Refrigerator', 'Double door refrigerator', 1000, 'Appliances'), ('Washing Machine', 'Automatic washing machine', 850, 'Appliances'), ('Microwave', 'Smart microwave oven', 300, 'Appliances'), ('Table', 'Wooden dining table', 200, 'Furniture'), ('Chair', 'Dining chair', 150, 'Furniture'), ('Sofa', 'Leather sofa', 1200, 'Furniture'), ('Bed', 'Queen-size bed', 900, 'Furniture'), ('Television', 'Smart TV', 1100, 'Electronics'), ('Smartwatch', 'Fitness tracking smartwatch', 250, 'Electronics'), ('Camera', 'DSLR camera', 700, 'Electronics'), ('Fan', 'Table fan', 80, 'Appliances'), ('Jeans', 'Skinny jeans', 130, 'Clothing'), ('Shirt', 'Cotton shirt', 50, 'Clothing'), ('Trousers', 'Formal trousers', 70, 'Clothing'), ('Jacket', 'Winter jacket', 180, 'Clothing');	20 row(s) affected Records: 20 Duplicates: 0 Warnings: 0	0.01

**Orders Table:** INSERT INTO Orders (customer\_id, product\_id, quantity, order\_date, status, payment\_method, total\_amount) VALUES (2, 4, 1, '2025-02-10', 'Success', 'UPI', 40), (5, 2, 2, '2025-02-11', 'Pending', 'Credit', 1200), (10, 6, 1, '2025-02-12', 'Cancel', 'Debit', 1000), (1, 8, 1, '2025-02-10', 'Success', 'COD', 300), (3, 10, 2, '2025-02-13', 'Pending', 'UPI', 300), (7, 12, 1, '2025-02-14', 'Success', 'Credit', 900), (6, 14, 1, '2025-02-15', 'Success', 'Debit', 250), (8, 18, 3, '2025-02-16', 'Cancel', 'UPI', 150), (9, 20, 1, '2025-02-10', 'Pending', 'COD', 180), (4, 17, 1, '2025-02-11', 'Success', 'Debit', 130), (15, 1, 1, '2025-02-12', 'Pending', 'UPI', 800), (12, 7, 1, '2025-02-13', 'Success', 'COD', 850), (11, 9, 1, '2025-02-14', 'Success', 'Debit', 200), (14, 15, 1, '2025-02-15', 'Pending', 'UPI', 700), (18, 5, 1, '2025-02-16', 'Cancel', 'Credit', 75), (13, 13, 1, '2025-02-10', 'Success', 'Debit', 1100), (20, 3, 2, '2025-02-11', 'Pending', 'UPI', 240), (16, 19, 1, '2025-02-12', 'Success', 'COD', 70), (1, 11, 1, '2025-02-13', 'Pending', 'Credit', 1200), (5, 16, 2, '2025-02-17', 'Success', 'Debit', 160);



Query 1

```

187 • INSERT INTO Orders (customer_id, product_id, quantity, order_date, status, payment_method, total_amount) VALUES
188 (2, 4, 1, '2025-02-10', 'Success', 'UPI', 40),
189 (5, 2, 2, '2025-02-11', 'Pending', 'Credit', 1200),
190 (10, 6, 1, '2025-02-12', 'Cancel', 'Debit', 1000),
191 (1, 8, 1, '2025-02-10', 'Success', 'COD', 300),
192 (3, 10, 2, '2025-02-13', 'Pending', 'UPI', 300),
193 (7, 12, 1, '2025-02-14', 'Success', 'Credit', 900),
194 (6, 14, 1, '2025-02-15', 'Success', 'Debit', 250),
195 (8, 18, 3, '2025-02-16', 'Cancel', 'UPI', 150),
196 (9, 20, 1, '2025-02-10', 'Pending', 'COD', 180),
197 (4, 17, 1, '2025-02-11', 'Success', 'Debit', 130),
198 (15, 1, 1, '2025-02-12', 'Pending', 'UPI', 800),
199 (12, 7, 1, '2025-02-13', 'Success', 'COD', 850),
200 (11, 9, 1, '2025-02-14', 'Success', 'Debit', 200),
201 (14, 15, 1, '2025-02-15', 'Pending', 'UPI', 700),
202 (18, 5, 1, '2025-02-16', 'Cancel', 'Credit', 75),
203 (13, 13, 1, '2025-02-10', 'Success', 'Debit', 1100),
204 (20, 3, 2, '2025-02-11', 'Pending', 'UPI', 240),
205 (16, 19, 1, '2025-02-12', 'Success', 'COD', 70),
206 (1, 11, 1, '2025-02-13', 'Pending', 'Credit', 1200),
207 (5, 16, 2, '2025-02-17', 'Success', 'Debit', 1600);

```

Output

Action Output

#	Time	Action	Message
1	10:23:19	INSERT INTO Orders (customer_id, product_id, quantity, order_date, status, payment_method, total_amount) VAL...	20 row(s) affected Records: 20 Duplicates: 0 Warnings: 0

## 7.Perform following queries:

- a. Count the number of products as product\_count in each category.

Query:Select category, count(product\_id) as No\_of\_Products  
from Products group by category;

```

210 • Select category, count(product_id) as No_of_Products
211 from Products group by category;

```

Result Grid

category	No_of_Products
Electronics	8
Appliances	4
Furniture	4
Clothing	4

- b. Retrieve all products that belong to the 'Electronics' category, have a price between \$50 and \$500, and whose name contains the letter 'a'.

Query:Select name from Products where category='Electronics'  
and price between 50 and 500

and name like "%a%";

```
212 • Select name from Products where category='Electronics'
213 and price between 50 and 500
214 and name like "%a%";
215
216 • Select * from Products where category='Electronics'
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

	name
▶	Headphones
	Keyboard
	Smartwatch

- c. Get the top 5 most expensive products in the 'Electronics' category, skipping the first 2.

Query: Select \* from Products where category='Electronics'  
order by price desc limit 5 offset 2;

```
217 • Select * from Products where category='Electronics'
218 order by price desc limit 5 offset 2;
```

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell C

	product_id	name	description	price	category
▶	15	Camera	DSLR camera	700.00	Electronics
	2	Smartphone	Latest smartphone	600.00	Electronics
	14	Smartwatch	Fitness tracking smartwatch	250.00	Electronics
	3	Headphones	Noise-canceling headphones	120.00	Electronics
	5	Keyboard	Gaming keyboard	75.00	Electronics
*	NULL	NULL	NULL	NULL	NULL

- d. Retrieve customers who have not placed any orders.

Query: Select \* from Customer  
where customer\_id not in  
(Select customer\_id from orders);

```

219 • Select * from Customer
220 where customer_id not in
221 (Select customer_id from orders);

```

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
customer_id	name	email	mobile	age
17	Amit Sharma	amit@example.com	9876543226	30
19	Harshit Aggarwal	harshit@example.com	9876543228	28
NULL	NULL	NULL	NULL	NULL

e. Find the average total amount spent by each customer.

Query: Select customer\_id, Round(Avg(total\_amount),2) as Avg\_amount\_spent  
from Orders group by customer\_id;

```

222 • Select customer_id, Round(Avg(total_amount),2) as Avg_amount_spent from Orders
223 group by customer_id;

```

Result Grid

Filter Rows:

Export:

Wrap Cell Content:

	customer_id	Avg_amount_spent
▶	1	750.00
	2	40.00
	3	300.00
	4	130.00
	5	680.00
	6	250.00
	7	900.00
	8	150.00
	9	180.00
	10	1000.00
	11	200.00
	12	850.00

f. Get the products that have a price less than the average price of all products.

Query: Select name,price from Products  
where price < (Select Avg(price) from Products);

```

224 • Select name,price from Products
225 where price < (Select Avg(price) from Products)

```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	name	price			
▶	Headphones	120.00			
	Mouse	40.00			
	Keyboard	75.00			
	Microwave	300.00			
	Table	200.00			
	Chair	150.00			
	Smartwatch	250.00			
	Fan	80.00			
	Jeans	130.00			
	Shirt	50.00			
	Trousers	70.00			
	Jacket	180.00			

g. Calculate the total quantity of products ordered by each customer.

Query: Select customer\_id, Sum(quantity)as Total\_purchs from Orders  
group by customer\_id  
order by Total\_purchs desc;

```

227 • Select customer_id, Sum(quantity)as Total_purchs from Orders
228 group by customer_id
229 order by Total_purchs desc;

```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	customer_id	Total_purchs			
▶	5	4			
	8	3			
	1	2			
	3	2			
	20	2			
	2	1			
	4	1			
	6	1			
	7	1			
	9	1			
	10	1			
	11	1			

h. List all orders along with customer name and product name.

Query:

Select o.order\_id, c.name as customer\_name, p.name as product\_name,  
o.quantity, o.total\_amount  
from Orders o  
Join Customer c on o.customer\_id = c.customer\_id  
Join Products p on o.product\_id = p.product\_id;

```

230
231 • Select o.order_id, c.name as customer_name, p.name as product_name, o.quantity, o.total_amount
232 from Orders o
233 Join Customer c on o.customer_id = c.customer_id
234 Join Products p on o.product_id = p.product_id;

```

order_id	customer_name	product_name	quantity	total_amount
1	Rekha Gupta	Mouse	1	40.00
2	Vikram Singh	Smartphone	2	1200.00
3	Meera Sharma	Refrigerator	1	1000.00
4	Pakhi Gupta	Microwave	1	300.00
5	Rahul Verma	Chair	2	300.00
6	Arjun Patel	Bed	1	900.00
7	Neha Gupta	Smartwatch	1	250.00
8	Pooja Deshmukh	Shirt	3	150.00
9	Sandeep Seth	Jacket	1	180.00
10	Sneha Patel	Jeans	1	130.00
11	Siddharth Devradi	Laptop	1	800.00
12	Divya Joshi	Washing Mac...	1	850.00

i. Find products that have never been ordered.

Query: Select product\_id, name from Products

where product\_id not in (Select distinct product\_id from Orders);

-Every product is purchased by a customer, so the output is displayed like this.

```

231 • Select product_id, name from Products
232 where product_id not in (Select distinct product_id from Orders);

```

product_id	name
NULL	NULL