1.PRODUCT TABLE

mysql> create database database2;

Query OK, 1 row affected (0.04 sec)

mysql> use database2;

Database changed

mysql> CREATE TABLE Products (

-> product\_id INT PRIMARY KEY,

-> product\_name VARCHAR(100),

-> category VARCHAR(50),

-> unit\_price DECIMAL(10, 2)

-> );

Query OK, 0 rows affected (0.07 sec)

mysql> Insert into products(product\_id,product\_name,category,unit\_price)Values(101, 'Laptop', 'Electronics', 500.00),

-> (102, 'Smartphone', 'Electronics', 300.00),

-> (103, 'Headphones', 'Electronics', 30.00),

-> (104, 'Keyboard', 'Electronics', 20.00),

-> (105, 'Mouse', 'Electronics', 15.00);

Query OK, 5 rows affected (0.02 sec)

Records: 5 Duplicates: 0 Warnings: 0

1. Retrieve all columns from the product table.

mysql> select \* from Products;

+------------+--------------+-------------+------------+

| product\_id | product\_name | category | unit\_price |

+------------+--------------+-------------+------------+

| 101 | Laptop | Electronics | 500.00 |

| 102 | Smartphone | Electronics | 300.00 |

| 103 | Headphones | Electronics | 30.00 |

| 104 | Keyboard | Electronics | 20.00 |

| 105 | Mouse | Electronics | 15.00 |

+------------+--------------+-------------+------------+

5 rows in set (0.00 sec)

2. Retrieve the product\_name and unit\_price from the Products table.

mysql> select product\_name,unit\_price from products;

+--------------+------------+

| product\_name | unit\_price |

+--------------+------------+

| Laptop | 500.00 |

| Smartphone | 300.00 |

| Headphones | 30.00 |

| Keyboard | 20.00 |

| Mouse | 15.00 |

+--------------+------------+

5 rows in set (0.00 sec)

3. Filter the Products table to show only products in the &#39;Electronics category.

mysql> select category from products where category='electronics';

+-------------+

| category |

+-------------+

| Electronics |

| Electronics |

| Electronics |

| Electronics |

| Electronics |

+-------------+

5 rows in set (0.00 sec)

mysql> select product\_id,product\_name from products where unit\_price>100;

+------------+--------------+

| product\_id | product\_name |

+------------+--------------+

| 101 | Laptop |

| 102 | Smartphone |

+------------+--------------+

2 rows in set (0.01 sec)

mysql> select avg (unit\_price) from products;

+------------------+

| avg (unit\_price) |

+------------------+

| 173.000000 |

+------------------+

1 row in set (0.00 sec)

mysql> select product\_name,unit\_price from products where unit\_price=(select max(unit\_price) from products);

+--------------+------------+

| product\_name | unit\_price |

+--------------+------------+

| Laptop | 500.00 |

+--------------+------------+

1 row in set (0.01 sec)

mysql> select product\_name,unit\_price from products order by unit\_price desc;

+--------------+------------+

| product\_name | unit\_price |

+--------------+------------+

| Laptop | 500.00 |

| Smartphone | 300.00 |

| Headphones | 30.00 |

| Keyboard | 20.00 |

| Mouse | 15.00 |

+--------------+------------+

5 rows in set (0.01 sec)

mysql> select product\_name,unit\_price from products where unit\_price>=20 and unit\_price<=600;

+--------------+------------+

| product\_name | unit\_price |

+--------------+------------+

| Laptop | 500.00 |

| Smartphone | 300.00 |

| Headphones | 30.00 |

| Keyboard | 20.00 |

+--------------+------------+

4 rows in set (0.00 sec)

mysql> select product\_name,category from products order by category asc;

+--------------+-------------+

| product\_name | category |

+--------------+-------------+

| Laptop | Electronics |

| Smartphone | Electronics |

| Headphones | Electronics |

| Keyboard | Electronics |

| Mouse | Electronics |

+--------------+-------------+

5 rows in set (0.01 sec)

2.SALES TABLE:

mysql> use database2;

Database changed

mysql> create table salesTable(

-> sale\_id INT PRIMARY KEY,

-> product\_id INT,

-> quantity\_sold INT,

-> sale\_date DATE,

-> total\_price DECIMAL(10, 2));

Query OK, 0 rows affected (0.03 sec)

mysql> insert into salestable(sale\_id, product\_id, quantity\_sold, sale\_date, total\_price) VALUES

-> (1, 101, 5, '2024-01-01', 2500.00),

-> (2, 102, 3, '2024-01-02', 900.00),

-> (3, 103, 2, '2024-01-02', 60.00),

-> (4, 104, 4, '2024-01-03', 80.00),

-> (5, 105, 6, '2024-01-03', 90.00);

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> select \* from salestable;

+---------+------------+---------------+------------+-------------+

| sale\_id | product\_id | quantity\_sold | sale\_date | total\_price |

+---------+------------+---------------+------------+-------------+

| 1 | 101 | 5 | 2024-01-01 | 2500.00 |

| 2 | 102 | 3 | 2024-01-02 | 900.00 |

| 3 | 103 | 2 | 2024-01-02 | 60.00 |

| 4 | 104 | 4 | 2024-01-03 | 80.00 |

| 5 | 105 | 6 | 2024-01-03 | 90.00 |

+---------+------------+---------------+------------+-------------+

5 rows in set (0.00 sec)

mysql> select sale\_id,sale\_date from salestable;

+---------+------------+

| sale\_id | sale\_date |

+---------+------------+

| 1 | 2024-01-01 |

| 2 | 2024-01-02 |

| 3 | 2024-01-02 |

| 4 | 2024-01-03 |

| 5 | 2024-01-03 |

+---------+------------+

5 rows in set (0.00 sec)

mysql> select \* from salestable where total\_price>100;

+---------+------------+---------------+------------+-------------+

| sale\_id | product\_id | quantity\_sold | sale\_date | total\_price |

+---------+------------+---------------+------------+-------------+

| 1 | 101 | 5 | 2024-01-01 | 2500.00 |

| 2 | 102 | 3 | 2024-01-02 | 900.00 |

+---------+------------+---------------+------------+-------------+

2 rows in set (0.00 sec)

mysql> select sale\_id,total\_price from salestable where sale\_date='2024-01-03';

+---------+-------------+

| sale\_id | total\_price |

+---------+-------------+

| 4 | 80.00 |

| 5 | 90.00 |

+---------+-------------+

2 rows in set (0.01 sec)

mysql> select sum(total\_price) from salestable;

+------------------+

| sum(total\_price) |

+------------------+

| 3630.00 |

+------------------+

1 row in set (0.00 sec)

mysql> select sum(quantity\_sold) from salestable;

+--------------------+

| sum(quantity\_sold) |

+--------------------+

| 20 |

+--------------------+

1 row in set (0.00 sec)

mysql> select sale\_id,product\_id,total\_price from salestable where quantity\_sold>4;

+---------+------------+-------------+

| sale\_id | product\_id | total\_price |

+---------+------------+-------------+

| 1 | 101 | 2500.00 |

| 5 | 105 | 90.00 |

+---------+------------+-------------+

2 rows in set (0.00 sec)

mysql> select avg(total\_price) from salestable

-> ;

+------------------+

| avg(total\_price) |

+------------------+

| 726.000000 |

+------------------+

1 row in set (0.00 sec)