

Creating tables

Sale details table:

```
mysql> create table sale_details_cs23bt013(
    -> sale_id int,
    -> product_id int,
    -> quantity_sold int,
    -> sale_date date,
    -> total_price decimal(10,2)
    -> );
Query OK, 0 rows affected (0.07 sec)
```

```
mysql> insert into sale_details_cs23bt013(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 (0.04 sec)
Records: 5  Duplicates: 0  Warnings: 0

mysql> select * from sale_details_cs23bt013;
+-----+-----+-----+-----+-----+
| 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 (0.02 sec)
```



Product_details table:

```
mysql> create table product_details_cs23bt013(
-> product_id int,
-> product_name varchar(50),
-> category varchar(50),
-> unit_price decimal(10,2)
-> );
Query OK, 0 rows affected (0.04 sec)

mysql> insert into product_details_cs23bt013(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

mysql> select * from product_details_cs23bt013;
+-----+-----+-----+-----+
| 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)
```

5.A)

```
mysql> select sum(sd.quantity_sold*pd.unit_price) as totalrevenue
-> from sale_details_cs23bt013 sd
-> join product_details_cs23bt013 pd on sd.product_id=pd.pro
duct_id
-> where pd.category='Electronics';
+-----+
| totalrevenue |
+-----+
|      3630.00 |
+-----+
1 row in set (0.02 sec)
```

5.B)

```
mysql> select pd.product_name,
    -> sd.quantity_sold*pd.unit_price as totalprice
    -> from sale_details_cs23bt013 sd
    -> join product_details_cs23bt013 pd on sd.product_id=pd.product_id;
+-----+-----+
| product_name | totalprice |
+-----+-----+
| Laptop       | 2500.00   |
| Smartphone   | 900.00    |
| Headphones   | 60.00     |
| Keyboard     | 80.00     |
| Mouse        | 90.00     |
+-----+-----+
5 rows in set (0.00 sec)
```

5.C)

```
mysql> select pd.product_name,
    -> sum(sd.quantity_sold) as total_quant_sold
    -> from sale_details_cs23bt013 sd
    -> join product_details_cs23bt013 pd on sd.product_id=pd.product_id
    -> group by pd.product_name
    -> having sum(sd.quantity_sold)>30;
Empty set (0.02 sec)
```

5.D)

```
mysql> select sd.sale_id,
    -> sd.product_id,
    -> sd.quantity_sold,
    -> sd.sale_date,
    -> sd.total_price
    -> from sale_details_cs23bt013 sd
    -> where sd.quantity_sold > (
    -> select avg(quantity_sold)
    -> from sale_details_cs23bt013
    -> );
+-----+-----+-----+-----+-----+
| sale_id | product_id | quantity_sold | sale_date | total_price |
+-----+-----+-----+-----+-----+
|      1 |      101 |            5 | 2024-01-01 |    2500.00 |
|      5 |      105 |            6 | 2024-01-03 |     90.00 |
+-----+-----+-----+-----+
2 rows in set (0.02 sec)
```

5.E)

```
mysql> select pd.product_name,
-> pd.category,
-> pd.unit_price
-> from product_details_cs23bt013 pd
-> where pd.product_id in(
-> select sd.product_id
-> from sale_details_cs23bt013 sd
-> where sd.quantity_sold > (select avg(quantity_sold)
-> from sale_details_cs23bt013)
-> );
+-----+-----+-----+
| product_name | category      | unit_price |
+-----+-----+-----+
| Laptop       | Electronics   |      500.00 |
| Mouse        | Electronics   |      15.00  |
+-----+-----+-----+
2 rows in set (0.01 sec)
```