

## 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.pro  
duct_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.pro  
duct_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)