**-- List all customers and the number of orders they placed.**

select c.cust\_name, count(distinct oi.quantity) as total\_quantity from customers c join orders o

on c.cust\_id = o.cust\_id join order\_items oi on o.order\_id = oi.order\_id

group by c.cust\_name;

**Output:**

# cust\_name total\_quantity

Customer\_1 4

Customer\_10 2

Customer\_11 6

Customer\_12 4

Customer\_13 8

Customer\_14 7

Customer\_15 8

Customer\_16 3

Customer\_17 8

Customer\_18 3

**-- Show all order items with product name and total price .**

SELECT

oi.order\_item\_id,

o.order\_id,

p.product\_name,

oi.quantity,

p.price,

(oi.quantity \* p.price) AS total\_price

FROM

order\_items oi

JOIN

products p ON oi.product\_id = p.product\_id

JOIN

orders o ON oi.order\_id = o.order\_id

ORDER BY

o.order\_id, oi.order\_item\_id;

**Output:**

# order\_item\_id order\_id product\_name quantity price total\_price

60 1001 Product\_17 9 615 5535

111 1001 Product\_17 1 615 615

173 1001 Product\_4 8 284 2272

444 1001 Product\_1 5 106 530

49 1002 Product\_6 5 582 2910

271 1002 Product\_14 9 719 6471

316 1002 Product\_6 5 582 2910

263 1003 Product\_12 4 617 2468

458 1003 Product\_1 1 106 106

14 1004 Product\_18 5 104 520

**-- Find the total revenue per customer**

SELECT

c.cust\_name,

SUM(oi.quantity \* p.price) AS total\_revenue

FROM

customers c

JOIN

orders o ON c.cust\_id = o.cust\_id

JOIN

order\_items oi ON o.order\_id = oi.order\_id

JOIN

products p ON oi.product\_id = p.product\_id

GROUP BY

c.cust\_name

ORDER BY

total\_revenue DESC;

**Output:**

# cust\_name, total\_revenue

Customer\_8, 80143

Customer\_42, 75315

Customer\_24, 49912

Customer\_17, 48566

Customer\_27, 47172

Customer\_39, 46767

Customer\_36, 46103

Customer\_46, 45994

Customer\_50, 45654

Customer\_23, 43314

**-- List the top 3 best-selling products by quantity sold**

SELECT

p.product\_name,

SUM(oi.quantity) AS total\_sold

FROM

order\_items oi

JOIN

products p ON oi.product\_id = p.product\_id

GROUP BY

p.product\_name

ORDER BY

total\_sold DESC

LIMIT 3;

**Output:**

# product\_name total\_sold

Product\_6 171

Product\_2 159

Product\_17 155

**-- Show orders with more than 3 items**

SELECT

o.order\_id,

SUM(oi.quantity) AS total\_items

FROM

orders o

JOIN

order\_items oi ON o.order\_id = oi.order\_id

GROUP BY

o.order\_id

HAVING

SUM(oi.quantity) > 3;

**Output:**

# order\_id total\_items

1046 21

1188 15

1130 12

1013 27

1151 19

1101 16

1084 7

1126 23

1040 8

1059 11

**-- Get each customer's most recent order date**

SELECT

c.cust\_name,

MAX(o.order\_date) AS most\_recent\_order

FROM

customers c

JOIN

orders o ON c.cust\_id = o.cust\_id

GROUP BY

c.cust\_name;

**Output:**

# cust\_name most\_recent\_order

Customer\_37 2023-07-06 00:00:00

Customer\_42 2023-07-18 00:00:00

Customer\_18 2023-06-06 00:00:00

Customer\_33 2023-06-14 00:00:00

Customer\_14 2023-07-14 00:00:00

Customer\_17 2023-07-11 00:00:00

Customer\_22 2023-06-19 00:00:00

Customer\_15 2023-07-08 00:00:00

Customer\_21 2023-06-04 00:00:00

Customer\_4 2023-06-02 00:00:00

**-- Find customers who have spent more than ₹10,000 in total**

SELECT

c.cust\_name,

SUM(oi.quantity \* p.price) AS total\_spent

FROM

customers c

JOIN

orders o ON c.cust\_id = o.cust\_id

JOIN

order\_items oi ON o.order\_id = oi.order\_id

JOIN

products p ON oi.product\_id = p.product\_id

GROUP BY

c.cust\_name

HAVING

SUM(oi.quantity \* p.price) > 10000;

**Output:**

# cust\_name total\_spent

Customer\_40 22172

Customer\_21 18891

Customer\_20 36724

Customer\_27 47172

Customer\_39 46767

Customer\_13 33007

Customer\_32 22528

Customer\_7 23454

Customer\_44 23856

Customer\_33 12984

**-- For each product, calculate: Total quantity sold,Total revenue ,Unique customers who** ordered it

SELECT

p.product\_name,

COALESCE(SUM(oi.quantity), 0) AS total\_quantity\_sold,

COALESCE(SUM(oi.quantity \* p.price), 0) AS total\_revenue,

COUNT(DISTINCT o.cust\_id) AS Total\_customers

FROM

products p

LEFT JOIN

order\_items oi ON p.product\_id = oi.product\_id

LEFT JOIN

orders o ON oi.order\_id = o.order\_id

GROUP BY

p.product\_name;

**Output:**

# product\_name total\_quantity\_sold total\_revenue Total\_customers

Product\_1 137 14522 24

Product\_10 89 63368 15

Product\_11 111 48618 18

Product\_12 147 90699 23

Product\_13 78 56004 13

Product\_14 121 86999 16

Product\_15 109 47524 17

Product\_16 133 44555 24

Product\_17 155 95325 18

Product\_18 136 14144 16

**-- Show the daily revenue for each day in 2023**

SELECT

o.order\_date,

SUM(oi.quantity \* p.price) AS daily\_revenue

FROM

orders o

JOIN

order\_items oi ON o.order\_id = oi.order\_id

JOIN

products p ON oi.product\_id = p.product\_id

WHERE

year(o.order\_date)=2023

GROUP BY

o.order\_date

ORDER BY

o.order\_date;

**Output:**

# order\_date daily\_revenue

2023-01-01 00:00:00 8952

2023-01-02 00:00:00 12291

2023-01-03 00:00:00 2574

2023-01-04 00:00:00 520

2023-01-05 00:00:00 2753

2023-01-06 00:00:00 1525

2023-01-07 00:00:00 5945

2023-01-09 00:00:00 1931

2023-01-10 00:00:00 3703

2023-01-11 00:00:00 2180

**-- Calculate monthly revenue using DATE\_format() or equivalent**

SELECT

DATE\_format( o.order\_date,'%y-%m') AS monthy,

SUM(oi.quantity \* p.price) AS monthly\_revenue

FROM

orders o

JOIN

order\_items oi ON o.order\_id = oi.order\_id

JOIN

products p ON oi.product\_id = p.product\_id

GROUP BY

monthy

ORDER BY

monthy;

**Output:**

# monthy monthly\_revenue

23-01 181817

23-02 191550

23-03 229414

23-04 180025

23-05 210752

23-06 146960

23-07 128459