

SQL Project

Q1. Select all the products from products table along with category name.

```
SELECT
P.ProductId,
P.ProductName,
P.Price,
P.StockQuantity,
c.CategoryID
FROM Products P
JOIN
Categories c ON c.CategoryID = p.CategoryID
;
```

	ProductId	ProductName	Price	StockQuantity	CategoryID
1	101	Laptop	50000.00	7	1
2	102	NoteBook	500.00	50	2
3	103	Sofa	45000.00	10	3
4	104	Office Chair	7999.00	15	4
5	105	Gas Stove	17999.00	12	5
6	106	Jeans	1499.00	150	6
7	107	Football	1799.00	250	7
8	108	Trimmer	2000.00	45	8
9	109	Whey	5400.00	76	9
10	110	Lipstick	700.00	200	10
11	201	Mouse	7000.00	20	1
12	202	Pen	20.00	500	2
13	203	Dinning Table	65000.00	30	3
14	204	Desk	12999.00	20	4
15	205	Oven	37000.00	24	5
16	206	Tshirt	599.00	250	6
17	207	Bat	3000.00	150	7
18	208	Beard Oil	700.00	95	8
19	209	Yoga Mat	699.00	100	9
20	210	Serum	700.00	200	10
21	301	TV	70000.00	35	1
22	302	Pencil	8.00	500	2
23	303	Chair	5000.00	70	3
24	304	A4 Printing ...	350.00	120	4
25	305	Non-Stick Pan	3000.00	204	5
26	306	Shirt	900.00	170	6
27	307	VolleyBall	2500.00	50	7
28	308	Comb	700.00	95	8
29	309	Creatine	500.00	130	9
30	310	Face Cream	400.00	150	10
31	401	Keyboard	2000.00	50	1
32	402	Textbook	200.00	50	2
33	403	Matress	20000.00	40	3
34	404	File Folders	120.00	280	4
35	405	Electric Kettle	1199.00	50	5
36	406	Blender	5500.00	70	6

Q2. Select all the customers detail from customer table who had purchased electronics item

```
SELECT
    c.CustomerID,
    c.CustomerName,
    c.Email
FROM
    Customers c
JOIN
    Orders o ON o.CustomerID = c.CustomerID
JOIN
    OrderDetails od ON od.OrderID = o.OrderID
JOIN
    Products p ON p.ProductId = od.ProductID
WHERE p.CategoryID = 7
;
```

	CustomerID	CustomerName	Email
1	15	Sanya Khan	sanya.khan@example.com
2	24	Ritika Mishra	ritika.mishra@example.com
3	32	Tanmay Rao	tanmay.rao@example.com
4	38	Akash Bhatia	akash.bhatia@example.com
5	20	Yash Dubey	yash.dubey@example.com

Q3. How much products are sold from a particular category

```
SELECT
    p.CategoryID,
    cat.CategoryName,
    SUM(od.Quantity) AS TotalProductsSold
FROM OrderDetails od
JOIN Products p ON od.ProductID = p.ProductID
JOIN Categories cat ON p.CategoryID = cat.CategoryID
WHERE p.CategoryID = 3
GROUP BY p.CategoryID, cat.CategoryName
;
```

	CategoryID	CategoryName	TotalProductsSold
1	3	HouseHold	13

Q4. Average amount of products from particular category

```
SELECT
    C.CategoryID,
    C.CategoryName,
    AVG(P.Price) AS AverageAmount
FROM Categories AS C
JOIN
    Products P ON P.CategoryID = C.CategoryID
GROUP BY C.CategoryName, C.CategoryID
;
```

	CategoryID	CategoryName	AverageAmount
1	1	Electronics	26999.800000
2	2	Stationary	147.600000
3	3	HouseHold	27600.000000
4	4	Office	4311.600000
5	5	Kitchen	13239.600000
6	6	Fashion	2019.200000
7	7	Sports	2759.800000
8	8	Grooming	784.000000
9	9	Health & Nutrition	1589.600000
10	10	Beauty	518.000000

Q5. highest order amount from each category

```
SELECT
    c.CategoryID,
    c.CategoryName,
    MAX(p.Price) AS HighestAmountPerorder
FROM Categories AS c
JOIN
    Products p ON p.CategoryID = c.CategoryID
GROUP BY c.CategoryID, c.CategoryName
;
```

	CategoryID	CategoryName	HighestAmountPerorder
1	1	Electronics	70000.00
2	2	Stationary	500.00
3	3	HouseHold	65000.00
4	4	Office	12999.00
5	5	Kitchen	37000.00
6	6	Fashion	5599.00
7	7	Sports	5000.00
8	8	Grooming	2000.00
9	9	Health & Nutrition	5400.00
10	10	Beauty	700.00

Q6. How many quantities of each product sold

```
SELECT
    p.ProductId,
    p.ProductName,
    SUM(Od.Quantity) AS TotalQuantitySold
FROM OrderDetails AS Od
INNER JOIN
    Products p ON p.ProductId = Od.ProductID
GROUP BY p.ProductName, p.ProductId
ORDER BY TotalQuantitySold DESC
```

;

	ProductId	ProductName	TotalQuantitySold
1	304	A4 Printing Paper	7
2	401	Keyboard	7
3	404	File Folders	6
4	302	Pencil	6
5	201	Mouse	5
6	203	Dinning Table	5
7	205	Oven	4
8	406	Blazer	4
9	504	ffice Scissors	4
10	506	Jeans	3
11	509	Multivitamin Tablets	3
12	301	TV	3
13	410	Moisturizer	3
14	502	A4 Size Chart paper	3
15	503	Curtains	3
16	405	Electric Kettle	3
17	402	Textbook	3
18	309	Creatine	3
19	204	Desk	3
20	208	Beard Oil	3
21	108	Trimmer	2
22	207	Bat	2
23	303	Chair	2
24	310	Face Cream	2
25	307	VolleyBall	2
26	403	Matress	2
27	407	Stumps	2
28	408	Shaving Foam	2
29	510	Skin Brightening C...	2
30	507	Badminton	1
31	508	Hair Styling Gel	1
32	505	Cooker	1
33	409	Fish Oil tablets	1
34	501	Ceiling Fan	1
35	308	Comb	1
36	305	Non-Stick Pan	1

✔ Query executed successfully.

Q7. Total Quantity Sold per category

```
SELECT
    p.CategoryID,
    c.CategoryName,
    SUM(od.Quantity) AS TotalQuantitySold
FROM OrderDetails od
INNER JOIN
    Products p ON od.ProductId = p.ProductID
INNER JOIN
    Categories c ON p.CategoryID = c.CategoryID
GROUP BY p.CategoryID, c.CategoryName
ORDER BY TotalQuantitySold DESC
;
```

	CategoryID	CategoryName	TotalQuantitySold
1	4	Office	20
2	1	Electronics	16
3	2	Stationary	14
4	3	HouseHold	13
5	8	Grooming	9
6	5	Kitchen	9
7	6	Fashion	9
8	9	Health & Nutrition	8
9	10	Beauty	8
10	7	Sports	7

Q8. Total amount collected per category

```
SELECT
    p.CategoryID,
    c.CategoryName,
    SUM(od.Quantity) AS TotalQuantitySold,
    SUM(p.Price) AS ToatalPrice
FROM OrderDetails AS od
INNER JOIN
    Products p ON p.ProductId = od.ProductID
INNER JOIN
    Categories c ON c.CategoryID = p.CategoryID
GROUP BY p.CategoryID, c.CategoryName
ORDER BY TotalQuantitySold DESC
;
```

	CategoryID	CategoryName	TotalQuantitySold	ToatalPrice
1	4	Office	20	28028.00
2	1	Electronics	16	242999.00
3	2	Stationary	14	964.00
4	3	HouseHold	13	276000.00
5	8	Grooming	9	3920.00
6	5	Kitchen	9	85199.00
7	6	Fashion	9	14196.00
8	9	Health & Nutrition	8	3147.00
9	10	Beauty	8	2380.00
10	7	Sports	7	14500.00

Q9. Total Quantity sold for all products along with total price

```
SELECT
    SUM(od.Quantity) AS TotalQuantitySold,
    SUM(p.Price) AS TotalPrice
FROM OrderDetails AS od
    INNER JOIN
    Products p ON p.ProductId = od.ProductID
;
```

	TotalQuantitySold	TotalPrice
1	113	671333.00

Q10. query for finding range of product as per price, product id, product name, product category

```
SELECT
    p.ProductId,
    p.ProductName,
    p.Price,
    CASE
        WHEN p.Price < 1000 Then 'Low Range'
        WHEN p.Price BETWEEN 1000 AND 20000 THEN 'Mid Range'
        ELSE 'High Range'
    END AS PriceRange,
    COUNT(*) AS ProductCount
FROM Products p
GROUP BY Price, ProductId, ProductName
ORDER BY ProductCount
;
```

	ProductId	ProductName	Price	PriceRange	ProductCount
1	101	Laptop	50000.00	High Range	1
2	102	NoteBook	500.00	Low Range	1
3	103	Sofa	45000.00	High Range	1
4	104	Office Chair	7999.00	Mid Range	1
5	105	Gas Stove	17999.00	Mid Range	1
6	106	Jeans	1499.00	Mid Range	1
7	107	Football	1799.00	Mid Range	1
8	108	Trimmer	2000.00	Mid Range	1
9	109	Whey	5400.00	Mid Range	1
10	110	Lipstick	700.00	Low Range	1
11	201	Mouse	7000.00	Mid Range	1
12	202	Pen	20.00	Low Range	1
13	203	Dinning Table	65000.00	High Range	1
14	204	Desk	12999.00	Mid Range	1
15	205	Oven	37000.00	High Range	1
16	206	Tshirt	599.00	Low Range	1
17	207	Bat	3000.00	Mid Range	1
18	208	Beard Oil	700.00	Low Range	1
19	209	Yoga Mat	699.00	Low Range	1
20	210	Serum	700.00	Low Range	1
21	301	TV	70000.00	High Range	1
22	302	Pencil	8.00	Low Range	1
23	303	Chair	5000.00	Mid Range	1
24	304	A4 Printing ...	350.00	Low Range	1
25	305	Non-Stick P...	3000.00	Mid Range	1
26	306	Shirt	900.00	Low Range	1
27	307	VolleyBall	2500.00	Mid Range	1
28	308	Comb	700.00	Low Range	1
29	309	Creatine	500.00	Low Range	1
30	310	Face Cream	400.00	Low Range	1
31	401	Keyboard	2000.00	Mid Range	1
32	402	Textbook	200.00	Low Range	1
33	403	Matress	20000.00	Mid Range	1
34	404	File Folders	120.00	Low Range	1
35	405	Electric Kettle	1199.00	Mid Range	1
36	406	Diaper	5500.00	Mid Range	1

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Q11. Sort product as per their price after sale

```
SELECT
    p.ProductID,
    p.ProductName,
    p.Price,
    ISNULL(d.DiscountAmount, 0) AS Discount,
    (p.Price - ISNULL(d.DiscountAmount, 0)) AS FinalPriceAfterDiscount
FROM Products p
LEFT JOIN Discounts d ON p.ProductID = d.ProductID
ORDER BY FinalPriceAfterDiscount ASC;
```

	ProductID	ProductName	Price	Discount	FinalPriceAfterDiscount
1	302	Pencil	8.00	2.00	6.00
2	502	A4 Size Chart paper	10.00	2.00	8.00
3	202	Pen	20.00	5.00	15.00
4	202	Pen	20.00	3.00	17.00
5	504	Office Scissors	90.00	10.00	80.00
6	404	File Folders	120.00	15.00	105.00
7	402	Textbook	200.00	20.00	180.00
8	402	Textbook	200.00	15.00	185.00
9	508	Hair Styling Gel	250.00	20.00	230.00
10	408	Shaving Foam	270.00	30.00	240.00
11	408	Shaving Foam	270.00	25.00	245.00
12	410	Moisturizer	300.00	50.00	250.00
13	304	A4 Printing Paper	350.00	40.00	310.00
14	310	Face Cream	400.00	75.00	325.00
15	510	Skin Brightening ...	490.00	50.00	440.00
16	309	Creatine	500.00	50.00	450.00
17	102	NoteBook	500.00	50.00	450.00
18	206	Tshirt	599.00	100.00	499.00
19	206	Tshirt	599.00	100.00	499.00
20	509	Multivitamin Tablets	599.00	60.00	539.00
21	509	Multivitamin Tablets	599.00	50.00	549.00
22	210	Serum	700.00	100.00	600.00
23	110	Lipstick	700.00	100.00	600.00
24	208	Beard Oil	700.00	70.00	630.00
25	210	Serum	700.00	60.00	640.00
26	308	Comb	700.00	60.00	640.00
27	209	Yoga Mat	699.00	50.00	649.00
28	308	Comb	700.00	50.00	650.00
29	409	Fish Oil tablets	750.00	80.00	670.00
30	306	Shirt	900.00	120.00	780.00
31	405	Electric Kettle	1199...	200.00	999.00
32	405	Electric Kettle	1199...	100.00	1099.00
33	506	Jeans	1499...	200.00	1299.00
34	506	Jeans	1499...	200.00	1299.00

Q12. Total amount collected per category

```
SELECT
    c.CategoryID,
    c.CategoryName,
    SUM(od.Quantity) AS TotalQuantitySold,
    SUM(p.Price * od.Quantity) AS TotalPrice
FROM Categories AS c
JOIN
    Products p ON p.CategoryID = c.CategoryID
JOIN
    OrderDetails od ON od.ProductID = p.ProductId
GROUP BY c.CategoryID, c.CategoryName
ORDER BY TotalQuantitySold Desc
;
```

	CategoryID	CategoryName	TotalQuantitySold	TotalPrice
1	4	Office	20	42527.00
2	1	Electronics	16	264999.00
3	2	Stationary	14	1198.00
4	3	HouseHold	13	429000.00
5	8	Grooming	9	7590.00
6	5	Kitchen	9	161597.00
7	6	Fashion	9	28392.00
8	9	Health & Nutrition	8	4746.00
9	10	Beauty	8	3380.00
10	7	Sports	7	22500.00

Q13. Display all the customer records where 2nd and 4th character are n And i respectively

```
SELECT
    *
FROM Customers AS c
WHERE
    c.CustomerName LIKE '_n_i%';
```

	CustomerID	CustomerName	Email
1	9	Ankit Yadav	ankit.yadav@example.com
2	60	Ankit Jha	ankit.jha@example.com

Q14. Total Amount collected per product and show the range

```
SELECT
    c.CategoryID,
    c.CategoryName,
    p.ProductName,
    SUM(od.Quantity) AS TotalQuantitySold,
    SUM(p.Price * od.Quantity) AS TotalPrice,
    CASE
        WHEN p.Price < 10000 THEN 'Low Range'
        WHEN p.Price BETWEEN 10000 AND 50000 THEN 'Mid Range'
        ELSE 'High Range'
    END AS ProductSalesRange
FROM Categories AS c
JOIN
    Products p ON p.CategoryID = c.CategoryID
JOIN
    OrderDetails od ON od.ProductID = p.ProductId
GROUP BY c.CategoryID, c.CategoryName, Price, od.Quantity, p.ProductName
ORDER BY TotalQuantitySold Desc
;
```

	CategoryID	CategoryName	ProductName	TotalQuantitySold	TotalPrice	ProductSalesRange
1	1	Electronics	Keyboard	4	8000.00	Low Range
2	1	Electronics	Mouse	4	28000.00	Low Range
3	2	Stationary	Pencil	4	32.00	Low Range
4	5	Kitchen	Oven	4	148000.00	Mid Range
5	6	Fashion	Blazer	4	22396.00	Low Range
6	8	Grooming	Beard Oil	3	2100.00	Low Range
7	9	Health & Nutrition	Creatine	3	1500.00	Low Range
8	10	Beauty	Moisturizer	3	900.00	Low Range
9	6	Fashion	Jeans	3	4497.00	Low Range
10	4	Office	A4 Printing Paper	3	1050.00	Low Range
11	5	Kitchen	Electric Kettle	3	3597.00	Low Range
12	3	HouseHold	Dinning Table	3	195000.00	High Range
13	4	Office	File Folders	3	360.00	Low Range
14	1	Electronics	TV	3	210000.00	High Range
15	1	Electronics	Keyboard	3	6000.00	Low Range
16	2	Stationary	Pencil	2	16.00	Low Range
17	2	Stationary	A4 Size Chart p...	2	20.00	Low Range
18	2	Stationary	Textbook	2	400.00	Low Range
19	3	HouseHold	Curtains	2	6000.00	Low Range
20	3	HouseHold	Chair	2	10000.00	Low Range
21	3	HouseHold	Matress	2	40000.00	Mid Range
22	4	Office	A4 Printing Paper	2	700.00	Low Range
23	4	Office	A4 Printing Paper	2	700.00	Low Range
24	3	HouseHold	Dinning Table	2	130000.00	High Range
25	4	Office	File Folders	2	240.00	Low Range
26	4	Office	ffice Scissors	2	180.00	Low Range
27	4	Office	ffice Scissors	2	180.00	Low Range
28	4	Office	Desk	2	25998.00	Mid Range
29	10	Beauty	Face Cream	2	800.00	Low Range
30	10	Beauty	Skin Brightenin...	2	980.00	Low Range
31	8	Grooming	Trimmer	2	4000.00	Low Range
32	8	Grooming	Shaving Foam	2	540.00	Low Range
33	7	Sports	VolleyBall	2	5000.00	Low Range
34	7	Sports	Bat	2	6000.00	Low Range
35	7	Sports	Stumps	2	10000.00	Low Range

✓ Query executed successfully.

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Q15. Total Amount collected per category and show the range

```

SELECT
  p.CategoryID,
  cat.CategoryName,
  CASE
    WHEN p.Price < 10000 THEN 'Low Range'
    WHEN p.Price BETWEEN 10000 AND 50000 THEN 'Mid Range'
    ELSE 'High Range'
  END AS ProductSalesRange,
  SUM(od.Quantity) AS TotalProductsSold,
  SUM(p.Price * od.Quantity) AS TotalPrice
FROM
  OrderDetails od
JOIN
  Products p ON od.ProductID = p.ProductID
JOIN
  Categories cat ON p.CategoryID = cat.CategoryID
GROUP BY
  p.CategoryID,
  cat.CategoryName,
  CASE
    WHEN p.Price < 10000 THEN 'Low Range'
    WHEN p.Price BETWEEN 10000 AND 50000 THEN 'Mid Range'
    ELSE 'High Range'
  END
ORDER BY
  p.CategoryID, ProductSalesRange
;

```

	CategoryID	CategoryName	ProductSalesRange	TotalProductsSold	TotalPrice
1	1	Electronics	High Range	3	210000.00
2	1	Electronics	Low Range	13	54999.00
3	2	Stationary	Low Range	14	1198.00
4	3	HouseHold	High Range	5	325000.00
5	3	HouseHold	Low Range	5	19000.00
6	3	HouseHold	Mid Range	3	85000.00
7	4	Office	Low Range	17	3530.00
8	4	Office	Mid Range	3	38997.00
9	5	Kitchen	Low Range	5	13597.00
10	5	Kitchen	Mid Range	4	148000.00
11	6	Fashion	Low Range	9	28392.00
12	7	Sports	Low Range	7	22500.00
13	8	Grooming	Low Range	9	7590.00
14	9	Health & Nutrition	Low Range	8	4746.00
15	10	Beauty	Low Range	8	3380.00

Q16. query for total price after discount per product

```
SELECT
    p.ProductID,
    p.ProductName,
    SUM(od.Quantity) AS TotalSold,
    p.Price,
    ISNULL(d.DiscountAmount, 0) AS Discount,
    SUM(od.Quantity * (p.Price - ISNULL(d.DiscountAmount, 0))) AS
TotalRevenueAfterDiscount
FROM OrderDetails od
JOIN Products p ON od.ProductID = p.ProductID
LEFT JOIN Discounts d ON p.ProductID = d.ProductID
GROUP BY p.ProductID, p.ProductName, p.Price, d.DiscountAmount
ORDER BY TotalRevenueAfterDiscount DESC;
```

	ProductID	ProductName	TotalSold	Price	Discount	TotalRevenueAfterDiscount
1	203	Dinning Table	5	65000.00	2500.00	312500.00
2	203	Dinning Table	5	65000.00	3500.00	307500.00
3	301	TV	3	70000.00	3000.00	201000.00
4	301	TV	3	70000.00	4000.00	198000.00
5	205	Oven	4	37000.00	1000.00	144000.00
6	205	Oven	4	37000.00	2500.00	138000.00
7	103	Sofa	1	45000.00	3000.00	42000.00
8	403	Matress	2	20000.00	1000.00	38000.00
9	204	Desk	3	12999.00	800.00	36597.00
10	204	Desk	3	12999.00	999.00	36000.00
11	201	Mouse	5	7000.00	700.00	31500.00
12	401	Keyboard	14	2000.00	150.00	25900.00
13	406	Blazer	4	5599.00	400.00	20796.00
14	407	Stumps	2	5000.00	250.00	9500.00
15	303	Chair	2	5000.00	350.00	9300.00
16	303	Chair	2	5000.00	400.00	9200.00
17	503	Curtains	3	3000.00	200.00	8400.00
18	505	Cooker	1	7000.00	400.00	6600.00
19	501	Ceiling Fan	1	5999.00	500.00	5499.00
20	207	Bat	2	3000.00	300.00	5400.00
21	307	VolleyBall	2	2500.00	200.00	4600.00
22	506	Jeans	3	1499.00	200.00	3897.00
23	108	Trimmer	2	2000.00	250.00	3500.00
24	405	Electric Kettle	3	1199.00	100.00	3297.00
25	405	Electric Kettle	3	1199.00	200.00	2997.00
26	305	Non-Stick Pan	1	3000.00	300.00	2700.00
27	304	A4 Printing ...	7	350.00	40.00	2170.00
28	208	Beard Oil	3	700.00	70.00	1890.00
29	509	Multivitamin ...	3	599.00	50.00	1647.00
30	509	Multivitamin ...	3	599.00	60.00	1617.00
31	507	Badminton	1	1500.00	100.00	1400.00
32	507	Badminton	1	1500.00	150.00	1350.00
33	309	Creatine	3	500.00	50.00	1350.00
34	206	Tshirt	2	599.00	100.00	998.00

Q17. total products sold from particular range

```

SELECT
    p.ProductId,
    p.ProductName,
    CASE
        WHEN p.Price < 1000 THEN 'Low Range'
        WHEN p.Price BETWEEN 1000 AND 10000 THEN 'Mid Range'
        ELSE 'High Range'
    END AS PriceRange,
    SUM(od.Quantity) AS TotalProductsSold
FROM OrderDetails od
JOIN Products p ON od.ProductID = p.ProductID
JOIN Categories c ON c.CategoryID = p.CategoryID
GROUP BY
    p.Price,p.ProductId,p.ProductName,
    CASE
        WHEN p.Price < 1000 THEN 'Low Range'
        WHEN p.Price BETWEEN 1000 AND 10000 THEN 'Mid Range'
        ELSE 'High Range'
    END
ORDER BY
    CASE
        WHEN p.Price < 10000 THEN 1
        WHEN p.Price BETWEEN 10000 AND 100000 THEN 2
        ELSE 3
    END;

```

	ProductId	ProductName	PriceRange	TotalProductsSold
1	108	Trimmer	Mid Range	2
2	201	Mouse	Mid Range	5
3	202	Pen	Low Range	1
4	206	Tshirt	Low Range	1
5	207	Bat	Mid Range	2
6	208	Beard Oil	Low Range	3
7	209	Yoga Mat	Low Range	1
8	210	Serum	Low Range	1
9	302	Pencil	Low Range	6
10	303	Chair	Mid Range	2
11	304	A4 Printing ...	Low Range	7
12	305	Non-Stick P...	Mid Range	1
13	306	Shirt	Low Range	1
14	307	VolleyBall	Mid Range	2
15	308	Comb	Low Range	1
16	309	Creatine	Low Range	3
17	310	Face Cream	Low Range	2
18	401	Keyboard	Mid Range	7
19	402	Textbook	Low Range	3
20	404	File Folders	Low Range	6
21	405	Electric Kettle	Mid Range	3
22	406	Blazer	Mid Range	4
23	407	Stumps	Mid Range	2
24	408	Shaving Foa...	Low Range	2
25	409	Fish Oil tabl...	Low Range	1
26	410	Moisturizer	Low Range	3
27	501	Ceiling Fan	Mid Range	1
28	502	A4 Size Cha...	Low Range	3
29	503	Curtains	Mid Range	3
30	504	ffice Scissors	Low Range	4
31	505	Cooker	Mid Range	1
32	506	Jeans	Mid Range	3
33	507	Badminton	Mid Range	1
34	508	Hair Styling ...	Low Range	1
35	509	Multitool	Low Range	2

Name : Sudhanshu Jha

Q18. Display all the customers where name starts with either A or S.

```
SELECT
*
FROM Customers AS c
WHERE
c.CustomerName LIKE 'A%' OR c.CustomerName LIKE 'S%';
```

	CustomerID	CustomerName	Email
1	1	Alice Parker	aliceparker@gmail.com
2	8	Sneha Reddy	sneha.reddy@example.com
3	9	Ankit Yadav	ankit.yadav@example.com
4	15	Sanya Khan	sanya.khan@example.com
5	18	Arjun Thakur	arjun.thakur@example.com
6	23	Aditi Kulkarni	aditi.kulkarni@example.com
7	25	Siddharth Sen	siddharth.sen@example.com
8	28	Ananya Saxena	ananya.saxena@example.com
9	35	Simran Chopra	simran.chopra@example.com
10	37	Srishti Vohra	srishti.vohra@example.com
11	38	Akash Bhatia	akash.bhatia@example.com
12	40	Aman Goel	aman.goel@example.com
13	41	Shruti Menon	shruti.menon@example.com
14	44	Avni Kaul	avni.kaul@example.com
15	48	Asmita Rane	asmita.rane@example.com
16	50	Shivani Pathak	shivani.pathak@example.com
17	53	Aarohi Shah	aarohi.shah@example.com
18	58	Sarthak Kapoor	sarthak.kapoor@example.com
19	60	Ankit Jha	ankit.jha@example.com
20	62	Aaravi Sharma	aaravi.sharma@example.com

Q19. Display all the records where name starts from alphabet s to z

```
SELECT *
FROM Customers
WHERE
CustomerName BETWEEN 's%' AND 'Z%';
```

	CustomerID	CustomerName	Email
1	7	Vikram Joshi	vikram.joshi@example.com
2	8	Sneha Reddy	sneha.reddy@example.com
3	13	Tanya Desai	tanya.desai@example.com
4	14	Varun Patel	varun.patel@example.com
5	15	Sanya Khan	sanya.khan@example.com
6	20	Yash Dubey	yash.dubey@example.com
7	25	Siddharth Sen	siddharth.sen@example.com
8	32	Tanmay Rao	tanmay.rao@example.com
9	35	Simran Chopra	simran.chopra@example.com
10	37	Srishti Vohra	srishti.vohra@example.com
11	41	Shruti Menon	shruti.menon@example.com
12	43	Tejas Pillai	tejas.pillai@example.com
13	50	Shivani Pathak	shivani.pathak@example.com
14	51	Yuvraj Mehra	yuvraj.mehra@example.com
15	55	Vani Saxena	vani.saxena@example.com
16	58	Sarthak Kapoor	sarthak.kapoor@example.co...

Q20. Discount amount for each products

```

SELECT
    d.ProductID,
    p.ProductName,
    SUM(od.Quantity) AS TotalSold,
    d.DiscountAmount
FROM Discounts d
JOIN
    Products p ON p.ProductId = d.ProductID
JOIN
    OrderDetails od ON od.ProductID = p.ProductId
GROUP BY od.Quantity, d.ProductId, p.ProductName, d.DiscountAmount
ORDER BY TotalSold
;

```

	ProductID	ProductName	TotalSold	DiscountAmount
1	102	NoteBook	1	50.00
2	103	Sofa	1	3000.00
3	201	Mouse	1	700.00
4	202	Pen	1	3.00
5	202	Pen	1	5.00
6	209	Yoga Mat	1	50.00
7	210	Serum	1	60.00
8	210	Serum	1	100.00
9	204	Desk	1	800.00
10	204	Desk	1	999.00
11	305	Non-Stick Pan	1	300.00
12	306	Shirt	1	120.00
13	308	Comb	1	50.00
14	308	Comb	1	60.00
15	402	Textbook	1	15.00
16	402	Textbook	1	20.00
17	404	File Folders	1	15.00
18	409	Fish Oil tablets	1	80.00
19	501	Ceiling Fan	1	500.00
20	502	A4 Size Chart paper	1	2.00
21	503	Curtains	1	200.00
22	505	Cooker	1	400.00
23	507	Badminton	1	100.00
24	507	Badminton	1	150.00
25	508	Hair Styling Gel	1	20.00
26	509	Multivitamin Tablets	1	50.00
27	509	Multivitamin Tablets	1	60.00
28	510	Skin Brightening ...	2	50.00
29	108	Trimmer	2	250.00
30	504	ffice Scissors	2	10.00
31	307	VolleyBall	2	200.00
32	206	Tshirt	2	100.00
33	302	Pencil	2	2.00
34	303	Chair	2	350.00
35	303	Chair	2	400.00

Q21. Total discount for each category

```
SELECT
    c.CategoryID,
    c.CategoryName,
    SUM(d.DiscountAmount) AS TotalDiscount
FROM Categories c
JOIN
    Products p ON p.CategoryID = c.CategoryID
JOIN
    Discounts d ON d.ProductID = p.ProductId
GROUP BY
    c.CategoryID, c.CategoryName
ORDER BY
    TotalDiscount DESC
;
```

	CategoryID	CategoryName	TotalDiscount
1	1	Electronics	11000.00
2	3	HouseHold	10950.00
3	5	Kitchen	6700.00
4	4	Office	3163.00
5	6	Fashion	1270.00
6	7	Sports	1270.00
7	9	Health & Nutrition	1240.00
8	8	Grooming	505.00
9	10	Beauty	435.00
10	2	Stationary	97.00

Q22. Query to display the customer name and what product they purchased from a specific category

```
SELECT
    c.CustomerName,
    cat.CategoryName,
    p.ProductName
FROM Customers c
JOIN
    Orders o ON o.CustomerID = c.CustomerID
JOIN
    OrderDetails od ON od.OrderID = o.OrderID
JOIN
    Products P on P.ProductId = od.ProductID
JOIN
    Categories cat ON cat.CategoryID = p.CategoryID
;
```

	CustomerName	CategoryName	ProductName
1	Kunal Singh	Electronics	Mouse
2	Kriti Rao	Electronics	TV
3	Aditi Kulkarni	Electronics	Keyboard
4	Vikram Joshi	Electronics	Ceiling Fan
5	Reena Malhotra	Electronics	Keyboard
6	Priya Mehta	Stationary	Pen
7	Lavanya Das	Stationary	Pencil
8	Divya Iyer	Stationary	Textbook
9	Ankit Yadav	Stationary	A4 Size Chart paper
10	Tanya Desai	Stationary	Pencil
11	Siddharth Sen	HouseHold	Dinning Table
12	Varun Patel	HouseHold	Chair
13	Rohan Kapoor	HouseHold	Matress
14	Ananya Saxena	HouseHold	Curtains
15	Megha Bansal	HouseHold	Sofa
16	Preeti Nair	Office	Desk
17	Neha Verma	Office	A4 Printing Paper
18	Rahul Sinha	Office	File Folders
19	Harshita Pandey	Office	ffice Scissors
20	Isha Gupta	Office	A4 Printing Paper
21	Sneha Reddy	Kitchen	Oven
22	Bhavna Kaur	Kitchen	Non-Stick Pan
23	Nikhil Jain	Kitchen	Electric Kettle
24	Alice Parker	Kitchen	Cooker
25	Mohit Deshmu...	Kitchen	Oven
26	Arjun Thakur	Fashion	Tshirt
27	Rhea Ghosh	Fashion	Shirt
28	Karan Chatterjee	Fashion	Blazer
29	Manav Shetty	Fashion	Jeans
30	Devang Arora	Fashion	Blazer
31	Sanya Khan	Sports	Bat
32	Ritika Mishra	Sports	VolleyBall
33	Tanmay Rao	Sports	Stumps
34	Akash Bhatia	Sports	Badminton
35	Yash Dubey	Sports	VolleyBall
36	Raghav Nanda	Grooming	Beard Oil

Query executed successfully.

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-- Q23. Display amount for each products

```
SELECT
    p.ProductName,
    P.Price
FROM Products p;
```

	ProductName	Price
1	Laptop	50000.00
2	NoteBook	500.00
3	Sofa	45000.00
4	Office Chair	7999.00
5	Gas Stove	17999.00
6	Jeans	1499.00
7	Football	1799.00
8	Trimmer	2000.00
9	Whey	5400.00
10	Lipstick	700.00
11	Mouse	7000.00
12	Pen	20.00
13	Dinning Table	65000.00
14	Desk	12999.00
15	Oven	37000.00
16	Tshirt	599.00
17	Bat	3000.00
18	Beard Oil	700.00
19	Yoga Mat	699.00
20	Serum	700.00
21	TV	70000.00
22	Pencil	8.00
23	Chair	5000.00
24	A4 Printing ...	350.00
25	Non-Stick Pan	3000.00
26	Shirt	900.00
27	VolleyBall	2500.00
28	Comb	700.00
29	Creatine	500.00
30	Face Cream	400.00
31	Keyboard	2000.00
32	Textbook	200.00
33	Matress	20000.00
34	File Folders	120.00
35	Electric Kettle	1199.00
36	Blazer	5599.00

✓ Query executed successfully.

Q24. Display amount for each products sold after discounts

```
SELECT
    p.ProductName,
    p.Price,
    d.DiscountAmount,
    (p.Price - d.DiscountAmount) AS PriceAfterDiscount
FROM Products p
JOIN
    Discounts d ON d.ProductID = p.ProductId
;
```

	ProductName	Price	DiscountAmount	PriceAfterDiscount
1	Laptop	50000.00	2500.00	47500.00
2	NoteBook	500.00	50.00	450.00
3	Sofa	45000.00	3000.00	42000.00
4	Office Chair	7999.00	799.00	7200.00
5	Gas Stove	17999.00	1000.00	16999.00
6	Jeans	1499.00	200.00	1299.00
7	Football	1799.00	150.00	1649.00
8	Trimmer	2000.00	250.00	1750.00
9	Whey	5400.00	500.00	4900.00
10	Lipstick	700.00	100.00	600.00
11	Mouse	7000.00	700.00	6300.00
12	Pen	20.00	5.00	15.00
13	Dinning Table	65000.00	3500.00	61500.00
14	Desk	12999.00	999.00	12000.00
15	Oven	37000.00	2500.00	34500.00
16	Tshirt	599.00	100.00	499.00
17	Bat	3000.00	300.00	2700.00
18	Beard Oil	700.00	70.00	630.00
19	Yoga Mat	699.00	50.00	649.00
20	Serum	700.00	100.00	600.00
21	TV	70000.00	4000.00	66000.00
22	Pencil	8.00	2.00	6.00
23	Chair	5000.00	400.00	4600.00
24	A4 Printing ...	350.00	40.00	310.00
25	Non-Stick Pan	3000.00	300.00	2700.00
26	Shirt	900.00	120.00	780.00
27	VolleyBall	2500.00	200.00	2300.00
28	Comb	700.00	60.00	640.00
29	Creatine	500.00	50.00	450.00
30	Face Cream	400.00	75.00	325.00
31	Keyboard	2000.00	150.00	1850.00
32	Textbook	200.00	20.00	180.00
33	Matress	20000.00	1000.00	19000.00
34	File Folders	120.00	15.00	105.00
35	Electric Kettle	1199.00	200.00	999.00
36	Blazer	5599.00	400.00	5199.00

✓ Query executed successfully.

Q25. Display total discount amount for a specific category

```
SELECT
    p.CategoryID,
    c.CategoryName,
    SUM(ISNULL(d.DiscountAmount, 0)) AS TotalDiscountAmount
FROM Products p
JOIN Discounts d ON p.ProductID = d.ProductID
JOIN Categories c ON c.CategoryID = p.CategoryID
-- WHERE p.CategoryID = 5
GROUP BY p.CategoryID, c.CategoryName;
```

	CategoryID	CategoryName	TotalDiscountAmount
1	1	Electronics	11000.00
2	2	Stationary	97.00
3	3	HouseHold	10950.00
4	4	Office	3163.00
5	5	Kitchen	6700.00
6	6	Fashion	1270.00
7	7	Sports	1270.00
8	8	Grooming	505.00
9	9	Health & Nutrition	1240.00
10	10	Beauty	435.00

Q26. Query to display the item purchased for a specific date

```
SELECT
    p.ProductName,
    o.OrderDate
FROM
    Orders o
JOIN
    OrderDetails od ON od.OrderID = o.OrderID
JOIN
    Products p ON od.ProductID = p.ProductId
WHERE
    o.OrderDate = '2025-01-10'
;
```

	ProductName	OrderDate
1	Mouse	2025-01-10

Q27. Query to display item purchased between two dates

```
SELECT
    p.ProductName,
    o.OrderDate
FROM
    Orders o
JOIN
    OrderDetails od ON od.OrderID = o.OrderID
JOIN
    Products p ON od.ProductID = p.ProductId
WHERE o.OrderDate BETWEEN '2025-04-01' AND '2025-07-15';
;
```

	ProductName	OrderDate
1	Keyboard	2025-04-01
2	Mouse	2025-04-02
3	Mouse	2025-04-03
4	Pencil	2025-04-04
5	Textbook	2025-04-05
6	A4 Size Chart paper	2025-04-06
7	NoteBook	2025-04-07
8	Dinning Table	2025-04-08
9	Chair	2025-04-09
10	Curtains	2025-04-10
11	Dinning Table	2025-04-12
12	Desk	2025-04-14
13	File Folders	2025-04-16
14	A4 Printing Paper	2025-04-17
15	ffice Scissors	2025-04-18
16	A4 Printing Paper	2025-04-19
17	File Folders	2025-04-20
18	ffice Scissors	2025-04-21
19	Skin Brightening C...	2025-04-22
20	TV	2025-04-23

Q28. Query to display the maximum discount for a particular product

```
SELECT
    p.ProductID,
    p.ProductName,
    MAX(ISNULL(d.DiscountAmount, 0)) AS MaxDiscount
FROM Products p
LEFT JOIN Discounts d ON p.ProductID = d.ProductID
WHERE p.ProductID = 203
GROUP BY p.ProductID, p.ProductName;
```

	ProductID	ProductName	MaxDiscount
1	203	Dinning Table	3500.00

Q29. Query to display how many products are sold

```
SELECT
    p.ProductId,
    p.ProductName,
    SUM(od.Quantity) as TotalProductsSold
FROM Products AS p
JOIN
    OrderDetails od ON p.ProductId = od.ProductID
GROUP BY p.ProductId, p.ProductName
Order By TotalProductsSold DESC
;
```

	ProductId	ProductName	TotalProductsSold
1	304	A4 Printing Paper	7
2	401	Keyboard	7
3	404	File Folders	6
4	302	Pencil	6
5	201	Mouse	5
6	203	Dinning Table	5
7	205	Oven	4
8	406	Blazer	4
9	504	Office Scissors	4
10	506	Jeans	3
11	509	Multivitamin Tablets	3
12	301	TV	3
13	410	Moisturizer	3
14	502	A4 Size Chart paper	3
15	503	Curtains	3
16	405	Electric Kettle	3
17	402	Textbook	3
18	309	Creatine	3
19	204	Desk	3
20	208	Beard Oil	3
21	108	Trimmer	2
22	207	Bat	2
23	303	Chair	2
24	310	Face Cream	2
25	307	VolleyBall	2
26	403	Matress	2
27	407	Stumps	2
28	408	Shaving Foam	2
29	510	Skin Brightening C...	2
30	507	Badminton	1
31	508	Hair Styling Gel	1
32	505	Cooker	1
33	409	Fish Oil tablets	1

✔ Query executed successfully.

Q30. Query to display top 10 products with maximum selling

```
SELECT TOP 10
    p.ProductId,
    p.ProductName,
    SUM(od.Quantity) as TotalProductsSold
FROM Products AS p
JOIN
    OrderDetails od ON p.ProductId = od.ProductID
GROUP BY p.ProductId, p.ProductName
ORDER BY TotalProductsSold DESC
;
```

	ProductId	ProductName	TotalProductsSold
1	304	A4 Printing Paper	7
2	401	Keyboard	7
3	404	File Folders	6
4	302	Pencil	6
5	201	Mouse	5
6	203	Dinning Table	5
7	205	Oven	4
8	406	Blazer	4
9	504	Office Scissors	4
10	506	Jeans	3

Q31. Query to find top 10 products with maximum revenue(without discounts)

```
SELECT TOP 10
    p.ProductID,
    p.ProductName,
    SUM(od.Quantity) AS TotalQuantitySold,
    SUM(od.Quantity * p.Price) AS TotalRevenue
FROM OrderDetails od
JOIN Products p ON od.ProductID = p.ProductID
LEFT JOIN Discounts d ON p.ProductID = d.ProductID
GROUP BY p.ProductID, p.ProductName
ORDER BY TotalRevenue DESC;
```

	ProductID	ProductName	TotalQuantitySold	TotalRevenue
1	203	Dinning Table	10	650000.00
2	301	TV	6	420000.00
3	205	Oven	8	296000.00
4	204	Desk	6	77994.00
5	103	Sofa	1	45000.00
6	403	Matress	2	40000.00
7	201	Mouse	5	35000.00
8	401	Keyboard	14	28000.00
9	406	Blazer	4	22396.00
10	303	Chair	4	20000.00

Q32. Total revenue after discount for top 10 products

```

SELECT TOP 10
    p.ProductID,
    p.ProductName ,
    p.Price,
    SUM(od.Quantity * ISNULL(d.DiscountAmount, 0)) AS TotalDiscountAmount,
    SUM(od.Quantity) AS TotalQuantitySold,
    SUM(od.Quantity * (p.Price - ISNULL(d.DiscountAmount, 0))) AS TotalRevenue
FROM OrderDetails od
JOIN Products p ON od.ProductID = p.ProductID
LEFT JOIN Discounts d ON p.ProductID = d.ProductID
GROUP BY p.ProductID, p.ProductName, p.Price
ORDER BY TotalRevenue DESC;

```

	ProductID	ProductName	Price	TotalDiscountAmount	TotalQuantitySold	TotalRevenue
1	203	Dinning Table	65000.00	30000.00	10	620000.00
2	301	TV	70000.00	21000.00	6	399000.00
3	205	Oven	37000.00	14000.00	8	282000.00
4	204	Desk	12999.00	5397.00	6	72597.00
5	103	Sofa	45000.00	3000.00	1	42000.00
6	403	Matress	20000.00	2000.00	2	38000.00
7	201	Mouse	7000.00	3500.00	5	31500.00
8	401	Keyboard	2000.00	2100.00	14	25900.00
9	406	Blazer	5599.00	1600.00	4	20796.00
10	303	Chair	5000.00	1500.00	4	18500.00

Q33. Total discount amount for a particular product after selling

```

SELECT
    p.ProductId,
    p.ProductName,
    p.Price,
    d.DiscountAmount,
    SUM(od.Quantity) AS TotalSold,
    SUM(od.Quantity * ISNULL (d.DiscountAmount,0)) AS
TotalDiscountAmountAfterselling
FROM Products p
JOIN
OrderDetails od ON od.ProductID = p.ProductId
LEFT JOIN
Discounts d ON d.ProductID = p.ProductId
GROUP BY
p.ProductId, p.ProductName, p.Price, d.DiscountAmount
Order BY TotalDiscountAmountAfterselling

```

;

	ProductId	ProductName	Price	DiscountAmount	TotalSold	TotalDiscountAmountAfterselling
1	202	Pen	20.00	3.00	1	3.00
2	202	Pen	20.00	5.00	1	5.00
3	502	A4 Size Chart paper	10.00	2.00	3	6.00
4	302	Pencil	8.00	2.00	6	12.00
5	508	Hair Styling Gel	250.00	20.00	1	20.00
6	504	ffice Scissors	90.00	10.00	4	40.00
7	402	Textbook	200.00	15.00	3	45.00
8	408	Shaving Foam	270.00	25.00	2	50.00
9	102	NoteBook	500.00	50.00	1	50.00
10	209	Yoga Mat	699.00	50.00	1	50.00
11	308	Comb	700.00	50.00	1	50.00
12	402	Textbook	200.00	20.00	3	60.00
13	408	Shaving Foam	270.00	30.00	2	60.00
14	210	Serum	700.00	60.00	1	60.00
15	308	Comb	700.00	60.00	1	60.00
16	409	Fish Oil tablets	750.00	80.00	1	80.00
17	404	File Folders	120.00	15.00	6	90.00
18	510	Skin Brightening ...	490.00	50.00	2	100.00
19	210	Serum	700.00	100.00	1	100.00
20	507	Badminton	1500...	100.00	1	100.00
21	306	Shirt	900.00	120.00	1	120.00
22	507	Badminton	1500...	150.00	1	150.00
23	309	Creatine	500.00	50.00	3	150.00
24	410	Moisturizer	300.00	50.00	3	150.00
25	509	Multivitamin Tablets	599.00	50.00	3	150.00
26	310	Face Cream	400.00	75.00	2	150.00
27	509	Multivitamin Tablets	599.00	60.00	3	180.00
28	206	Tshirt	599.00	100.00	2	200.00
29	208	Beard Oil	700.00	70.00	3	210.00
30	304	A4 Printing Paper	350.00	40.00	7	280.00
31	405	Electric Kettle	1199...	100.00	3	300.00
32	305	Non-Stick Pan	3000...	300.00	1	300.00
33	505	Cooker	7000...	400.00	1	400.00
34	307	VolleyBall	2500...	200.00	2	400.00
35	108	Trimmer	2000...	250.00	2	500.00
36	407	Stumps	5000...	250.00	2	500.00

✓ Query executed successfully.

Name : Sudhanshu Jha

Q34. Highest quantity sold for all products by one customer

```

SELECT
    P.ProductId,
    P.ProductName,
    MAX(od.Quantity) AS MaxQuantitySold
FROM Products p
JOIN
    OrderDetails od ON od.ProductID = p.ProductId
GROUP BY
    p.ProductId,
    p.ProductName
Order BY
    MaxQuantitySold DESC
;

```

	ProductId	ProductName	MaxQuantitySold
1	302	Pencil	4
2	309	Creatine	3
3	404	File Folders	3
4	405	Electric Kettle	3
5	401	Keyboard	3
6	410	Moisturizer	3
7	203	Dinning Table	3
8	208	Beard Oil	3
9	304	A4 Printing Paper	3
10	506	Jeans	3
11	509	Multivitamin Tablets	2
12	207	Bat	2
13	204	Desk	2
14	205	Oven	2
15	108	Trimmer	2
16	201	Mouse	2
17	402	Textbook	2
18	403	Matress	2
19	502	A4 Size Chart paper	2
20	503	Curtains	2
21	504	ffice Scissors	2
22	406	Blazer	2
23	407	Stumps	2
24	408	Shaving Foam	2
25	310	Face Cream	2
26	303	Chair	1
27	409	Fish Oil tablets	1
28	505	Cooker	1
29	501	Ceiling Fan	1
30	202	Pen	1
31	102	NoteBook	1
32	103	Sofa	1
33	206	Tshirt	1
34	305	Non-Stick Pan	1
35	306	Shirt	1
36	307	VolleyBall	1

✓ Query executed successfully.

Q35. Find Product with price higher than the average price

```
SELECT
    *
FROM Products AS p
WHERE p.Price > (SELECT AVG(Price) FROM Products);
```

	ProductID	ProductName	Price	StockQuantity	CategoryID
1	101	Laptop	50000.00	7	1
2	103	Sofa	45000.00	10	3
3	104	Office Chair	7999.00	15	4
4	105	Gas Stove	17999.00	12	5
5	203	Dinning Table	65000.00	30	3
6	204	Desk	12999.00	20	4
7	205	Oven	37000.00	24	5
8	301	TV	70000.00	35	1
9	403	Matress	20000.00	40	3

Q36. Find orders for expensive products > 10000

```
SELECT
    *
FROM OrderDetails
WHERE ProductID IN (SELECT ProductId FROM Products WHERE price > 10000);
```

	DetailID	OrderID	ProductID	Quantity
1	2	1002	301	1
2	11	1011	203	3
3	13	1013	403	2
4	15	1015	103	1
5	16	1016	204	1
6	21	1021	205	2
7	25	1025	205	2
8	50	1050	301	1
9	58	1058	203	1
10	61	1061	203	1
11	62	1062	204	2
12	70	1070	301	1

Q37. Find Product with price Lower than the average price

```
SELECT
*
FROM Products AS p
WHERE p.Price < (SELECT AVG(Price) FROM Products);
```

	ProductId	ProductName	Price	StockQuantity	CategoryID
1	102	NoteBook	500.00	50	2
2	106	Jeans	1499.00	150	6
3	107	Football	1799.00	250	7
4	108	Trimmer	2000.00	45	8
5	109	Whey	5400.00	76	9
6	110	Lipstick	700.00	200	10
7	201	Mouse	7000.00	20	1
8	202	Pen	20.00	500	2
9	206	Tshirt	599.00	250	6
10	207	Bat	3000.00	150	7
11	208	Beard Oil	700.00	95	8
12	209	Yoga Mat	699.00	100	9
13	210	Serum	700.00	200	10
14	302	Pencil	8.00	500	2
15	303	Chair	5000.00	70	3
16	304	A4 Printing ...	350.00	120	4
17	305	Non-Stick P...	3000.00	204	5
18	306	Shirt	900.00	170	6
19	307	VolleyBall	2500.00	50	7
20	308	Comb	700.00	95	8
21	309	Creatine	500.00	130	9
22	310	Face Cream	400.00	150	10
23	401	Keyboard	2000.00	50	1
24	402	Textbook	200.00	50	2
25	404	File Folders	120.00	280	4
26	405	Electric Kettle	1199.00	50	5
27	406	Blazer	5599.00	70	6
28	407	Stumps	5000.00	450	7
29	408	Shaving Foa...	270.00	90	8
30	409	Fish Oil tabl...	750.00	170	9
31	410	Moisturizer	300.00	110	10
32	501	Ceiling Fan	5999.00	220	1
33	502	A4 Size Cha...	10.00	700	2
34	503	Curtains	3000.00	80	3

✓ Query executed successfully.

Q38. Show Price difference from average Price

```
SELECT
    ProductName,
    price,
    Price - (SELECT AVG(Price) FROM Products) AS PriceDiff
FROM Products
;
```

	ProductName	price	PriceDiff
1	Laptop	50000.00	42003.080000
2	NoteBook	500.00	-7496.920000
3	Sofa	45000.00	37003.080000
4	Office Chair	7999.00	2.080000
5	Gas Stove	17999.00	10002.080000
6	Jeans	1499.00	-6497.920000
7	Football	1799.00	-6197.920000
8	Trimmer	2000.00	-5996.920000
9	Whey	5400.00	-2596.920000
10	Lipstick	700.00	-7296.920000
11	Mouse	7000.00	-996.920000
12	Pen	20.00	-7976.920000
13	Dinning Table	65000.00	57003.080000
14	Desk	12999.00	5002.080000
15	Oven	37000.00	29003.080000
16	Tshirt	599.00	-7397.920000
17	Bat	3000.00	-4996.920000
18	Beard Oil	700.00	-7296.920000
19	Yoga Mat	699.00	-7297.920000
20	Serum	700.00	-7296.920000
21	TV	70000.00	62003.080000
22	Pencil	8.00	-7988.920000
23	Chair	5000.00	-2996.920000
24	A4 Printing ...	350.00	-7646.920000
25	Non-Stick Pan	3000.00	-4996.920000
26	Shirt	900.00	-7096.920000
27	VolleyBall	2500.00	-5496.920000
28	Comb	700.00	-7296.920000
29	Creatine	500.00	-7496.920000
30	Face Cream	400.00	-7596.920000
31	Keyboard	2000.00	-5996.920000
32	Textbook	200.00	-7796.920000
33	Matress	20000.00	12003.080000
34	File Folders	120.00	-7876.920000
35	Electric Kettle	1199.00	-6797.920000
36	Blazer	5599.00	-2397.920000

✔ Query executed successfully.

Q39. Find products with atleast one order

```
SELECT *
FROM Products
WHERE ProductID IN (SELECT ProductID FROM OrderDetails WHERE Quantity
>= 1
GROUP BY ProductID);
```

	ProductID	ProductName	Price	StockQuantity	CategoryID
1	102	NoteBook	500.00	50	2
2	103	Sofa	45000.00	10	3
3	108	Trimmer	2000.00	45	8
4	201	Mouse	7000.00	20	1
5	202	Pen	20.00	500	2
6	203	Dinning Table	65000.00	30	3
7	204	Desk	12999.00	20	4
8	205	Oven	37000.00	24	5
9	206	Tshirt	599.00	250	6
10	207	Bat	3000.00	150	7
11	208	Beard Oil	700.00	95	8
12	209	Yoga Mat	699.00	100	9
13	210	Serum	700.00	200	10
14	301	TV	70000.00	35	1
15	302	Pencil	8.00	500	2
16	303	Chair	5000.00	70	3
17	304	A4 Printing Paper	350.00	120	4
18	305	Non-Stick Pan	3000.00	204	5
19	306	Shirt	900.00	170	6
20	307	VolleyBall	2500.00	50	7
21	308	Comb	700.00	95	8
22	309	Creatine	500.00	130	9
23	310	Face Cream	400.00	150	10
24	401	Keyboard	2000.00	50	1
25	402	Textbook	200.00	50	2
26	403	Matress	20000.00	40	3
27	404	File Folders	120.00	280	4
28	405	Electric Kettle	1199.00	50	5
29	406	Blazer	5599.00	70	6
30	407	Stumps	5000.00	450	7
31	408	Shaving Foam	270.00	90	8
32	409	Fish Oil tablets	750.00	170	9
33	410	Moisturizer	300.00	110	10
34	501	Ceiling Fan	5999.00	220	1
35	502	A4 Size Chart p...	10.00	700	2
36	503	Curtains	2000.00	80	3

✓ Query executed successfully.

Q40. Find Products which does not have any order

```
SELECT
  p.ProductID,
  p.ProductName,
  p.Price,
  p.StockQuantity,
  od.Quantity AS orderQuantity
FROM Products p
LEFT JOIN OrderDetails od ON p.ProductID = od.ProductID
WHERE od.ProductID IS NULL;
```

	ProductID	ProductName	Price	StockQuantity	orderQuantity
1	101	Laptop	50000.00	7	NULL
2	104	Office Chair	7999.00	15	NULL
3	105	Gas Stove	17999.00	12	NULL
4	106	Jeans	1499.00	150	NULL
5	107	Football	1799.00	250	NULL
6	109	Whey	5400.00	76	NULL
7	110	Lipstick	700.00	200	NULL

Q41. Stock available after sale

```
SELECT
    p.ProductID,
    p.ProductName,
    p.StockQuantity AS OriginalStock,
    ISNULL(SUM(od.Quantity), 0) AS TotalQuantitySold,
    (p.StockQuantity - ISNULL(SUM(od.Quantity), 0)) AS StockAvailable
FROM Products p
LEFT JOIN OrderDetails od ON p.ProductID = od.ProductID
GROUP BY p.ProductID, p.ProductName, p.StockQuantity
ORDER BY StockAvailable ASC;
```

	ProductID	ProductName	OriginalStock	TotalQuantitySold	StockAvailable
1	101	Laptop	7	0	7
2	103	Sofa	10	1	9
3	105	Gas Stove	12	0	12
4	104	Office Chair	15	0	15
5	201	Mouse	20	5	15
6	204	Desk	20	3	17
7	205	Oven	24	4	20
8	203	Dinning Table	30	5	25
9	301	TV	35	3	32
10	403	Matress	40	2	38
11	401	Keyboard	50	7	43
12	108	Trimmer	45	2	43
13	402	Textbook	50	3	47
14	405	Electric Kettle	50	3	47
15	307	VolleyBall	50	2	48
16	102	NoteBook	50	1	49
17	406	Blazer	70	4	66
18	509	Multivitamin ...	70	3	67
19	303	Chair	70	2	68
20	510	Skin Brighte...	76	2	74
21	504	ffice Scissors	80	4	76
22	109	Whey	76	0	76
23	503	Curtains	80	3	77
24	508	Hair Styling ...	85	1	84
25	408	Shaving Foa...	90	2	88
26	507	Badminton	90	1	89
27	208	Beard Oil	95	3	92
28	308	Comb	95	1	94
29	209	Yoga Mat	100	1	99
30	410	Moisturizer	110	3	107
31	304	A4 Printing ...	120	7	113
32	309	Creatine	130	3	127
33	505	Cooker	130	1	129
34	310	Face Cream	150	2	148
35	207	Bat	150	2	148
36	106	Jeans	150	0	150

✓ Query executed successfully.

Q42. What are the order details including customer name, product name for recent orders

```
SELECT
    c.CustomerID,
    c.CustomerName,
    p.ProductName,
    od.Quantity AS QuantityPurchased,
    o.OrderDate
FROM OrderDetails od
JOIN
    Products p ON p.ProductId = od.ProductID
JOIN
    Orders o ON o.OrderID = od.OrderID
JOIN
    Customers c ON c.CustomerID = o.CustomerID
ORDER BY o.OrderDate DESC
;
```

	CustomerID	CustomerName	ProductName	QuantityPurchased	OrderDate
1	19	Reena Malhotra	TV	1	2025-04-23
2	13	Tanya Desai	Skin Brightening Cream	1	2025-04-22
3	61	Hiral Jetwa	ffice Scissors	1	2025-04-21
4	5	Kunal Singh	File Folders	2	2025-04-20
5	62	Aaravi Sharma	A4 Printing Paper	1	2025-04-19
6	15	Sanya Khan	ffice Scissors	1	2025-04-18
7	1	Alice Parker	A4 Printing Paper	3	2025-04-17
8	30	Lavanya Das	File Folders	1	2025-04-16
9	6	Isha Gupta	Desk	2	2025-04-14
10	12	Kriti Rao	Dinning Table	1	2025-04-12
11	60	Ankit Jha	Curtains	1	2025-04-10
12	59	Palak Mahajan	Chair	1	2025-04-09
13	58	Sarthak Kapoor	Dinning Table	1	2025-04-08
14	57	Ishita Khanna	NoteBook	1	2025-04-07
15	56	Ritesh Bhatt	A4 Size Chart paper	2	2025-04-06
16	55	Vani Saxena	Textbook	1	2025-04-05
17	54	Jayant Tiwari	Pencil	1	2025-04-04
18	53	Aarohi Shah	Mouse	2	2025-04-03
19	52	Kashish Agarw...	Mouse	1	2025-04-02
20	51	Yuvraj Mehra	Keyboard	2	2025-04-01
21	50	Shivani Pathak	TV	1	2025-03-30
22	49	Rohit Vora	Moisturizer	3	2025-03-28
23	48	Asmita Rane	Skin Brightening Cream	1	2025-03-27
24	47	Gaurav Wagh	Face Cream	2	2025-03-26
25	46	Pooja Salvi	Serum	1	2025-03-24
26	45	Dhruv Sethi	Multivitamin Tablets	2	2025-03-23
27	44	Avni Kaul	Multivitamin Tablets	1	2025-03-22
28	42	Zoya Qureshi	Fish Oil tablets	1	2025-03-21
29	43	Tejas Pillai	Creatine	3	2025-03-19
30	41	Shruti Menon	Yoga Mat	1	2025-03-17
31	37	Srishti Vohra	Trimmer	2	2025-03-16
32	40	Aman Goel	Hair Styling Gel	1	2025-03-15
33	35	Simran Chopra	Shaving Foam	2	2025-03-13
34	39	Nikita Lohia	Comb	1	2025-03-11
35	36	Raghav Nanda	Beard Oil	3	2025-03-10
36	20	Yash Dubey	VolleyBall	1	2025-03-09

✓ Query executed successfully.

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Q43. Check review for particular item along with customer details

```
SELECT
    c.CustomerID,
    c.CustomerName,
    c.Email,
    p.ProductId,
    p.ProductName,
    r.ReviewID,
    r.Rating,
    r.Comment
FROM Customers c
JOIN
    Reviews r ON r.CustomerID = c.CustomerID
JOIN
    Products p ON p.ProductId = r.ProductID
WHERE p.ProductId = 102
;
```

	CustomerID	CustomerName	Email	ProductId	ProductName	ReviewID	Rating	Comment
1	12	Kriti Rao	kriti.rao@example.com	102	NoteBook	1	4	Good quality notebook for the price.

Q44. query for selecting product which have multiple orders

```
SELECT
    p.ProductId,
    p.ProductName,
    COUNT(od.OrderID) AS NumberOfOrders,
    SUM(od.Quantity) AS TotalQuantitySold
FROM OrderDetails od
JOIN
    Products p ON p.ProductId = od.ProductID
GROUP BY p.ProductId, p.ProductName
HAVING COUNT(od.OrderId) > 1
order BY NumberOfOrders DESC
;
```

	ProductId	ProductName	NumberOfOrders	TotalQuantitySold
1	304	A4 Printing Paper	4	7
2	301	TV	3	3
3	302	Pencil	3	6
4	201	Mouse	3	5
5	203	Dinning Table	3	5
6	404	File Folders	3	6
7	401	Keyboard	3	7
8	504	ffice Scissors	3	4
9	509	Multivitamin Ta...	2	3
10	510	Skin Brightenin...	2	2
11	402	Textbook	2	3
12	406	Blazer	2	4
13	502	A4 Size Chart p...	2	3
14	503	Curtains	2	3
15	204	Desk	2	3
16	205	Oven	2	4
17	303	Chair	2	2
18	307	VolleyBall	2	2

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Q45. Query to find product which have ratings more than 4

```
SELECT
    p.ProductId,
    p.ProductName,
    r.Rating
FROM Products p
JOIN
    Reviews r ON r.ProductID = p.ProductId
WHERE
    r.Rating > 4
;
```

	ProductId	ProductName	Rating
1	103	Sofa	5
2	509	Multivitamin Tablets	5
3	203	Dinning Table	5
4	108	Trimmer	5
5	202	Pen	5
6	204	Desk	5
7	206	Tshirt	5
8	208	Beard Oil	5
9	210	Serum	5
10	302	Pencil	5
11	308	Comb	5
12	309	Creatine	5
13	403	Matress	5
14	406	Blazer	5
15	408	Shaving Foam	5
16	410	Moisturizer	5
17	502	A4 Size Chart paper	5
18	505	Cooker	5
19	507	Badminton	5
20	509	Multivitamin Tablets	5
21	205	Oven	5
22	202	Pen	5
23	204	Desk	5
24	301	TV	5
25	507	Badminton	5

Q46. Products greater than average rating

```
SELECT
    p.ProductId,
    p.ProductName,
    r.Rating
FROM Reviews r
JOIN
    Products p ON p.ProductId = r.ProductID
WHERE
    r.Rating > (SELECT AVG(Rating) FROM Reviews)
;
```

	ProductId	ProductName	Rating
1	103	Sofa	5
2	509	Multivitamin Tablets	5
3	203	Dinning Table	5
4	108	Trimmer	5
5	202	Pen	5
6	204	Desk	5
7	206	Tshirt	5
8	208	Beard Oil	5
9	210	Serum	5
10	302	Pencil	5
11	308	Comb	5
12	309	Creatine	5
13	403	Matress	5
14	406	Blazer	5
15	408	Shaving Foam	5
16	410	Moisturizer	5
17	502	A4 Size Chart paper	5
18	505	Cooker	5
19	507	Badminton	5
20	509	Multivitamin Tablets	5
21	205	Oven	5
22	202	Pen	5
23	204	Desk	5
24	301	TV	5
25	507	Badminton	5

Q47. A filter for products with low stock (e.g., < 10)

```

SELECT
  p.ProductID,
  p.ProductName,
  p.StockQuantity AS OriginalStock,
  ISNULL(SUM(od.Quantity), 0) AS TotalQuantitySold,
  (p.StockQuantity - ISNULL(SUM(od.Quantity), 0)) AS StockRemaining,
  CASE
    WHEN (p.StockQuantity - ISNULL(SUM(od.Quantity), 0)) < 10 THEN 'Low'
    WHEN (p.StockQuantity - ISNULL(SUM(od.Quantity), 0)) BETWEEN 10
AND 20 THEN 'Mid'
    ELSE 'High'
  END AS StockAvailabilityRange

FROM Products p
LEFT JOIN OrderDetails od ON p.ProductID = od.ProductID
GROUP BY p.ProductID, p.ProductName, p.StockQuantity
ORDER BY StockRemaining ASC,
CASE
  WHEN (p.StockQuantity - ISNULL(SUM(od.Quantity), 0)) < 10 THEN 'Low'
  WHEN (p.StockQuantity - ISNULL(SUM(od.Quantity), 0)) BETWEEN 10
AND 20 THEN 'Mid'
  ELSE 'High'
END;

```

	ProductID	ProductName	OriginalStock	TotalQuantitySold	StockRemaining	StockAvailabilityRange
1	101	Laptop	7	0	7	Low
2	103	Sofa	10	1	9	Low
3	105	Gas Stove	12	0	12	Mid
4	104	Office Chair	15	0	15	Mid
5	201	Mouse	20	5	15	Mid
6	204	Desk	20	3	17	Mid
7	205	Oven	24	4	20	Mid
8	203	Dinning Table	30	5	25	High
9	301	TV	35	3	32	High
10	403	Matress	40	2	38	High
11	401	Keyboard	50	7	43	High
12	108	Trimmer	45	2	43	High
13	402	Textbook	50	3	47	High
14	405	Electric Kettle	50	3	47	High
15	307	VolleyBall	50	2	48	High
16	102	NoteBook	50	1	49	High
17	406	Blazer	70	4	66	High
18	509	Multivitamin ...	70	3	67	High
19	303	Chair	70	2	68	High
20	510	Skin Brighte...	76	2	74	High
21	504	ffice Scissors	80	4	76	High
22	109	Whey	76	0	76	High
23	503	Curtains	80	3	77	High
24	508	Hair Styling ...	85	1	84	High
25	408	Shaving Foa...	90	2	88	High
26	507	Badminton	90	1	89	High
27	208	Beard Oil	95	3	92	High
28	308	Comb	95	1	94	High
29	209	Yoga Mat	100	1	99	High
30	410	Moisturizer	110	3	107	High
31	304	A4 Printing ...	120	7	113	High
32	309	Creatine	130	3	127	High
33	505	Cooker	130	1	129	High
34	310	Face Cream	150	2	148	High
35	207	Bat	150	2	148	High
36	106	Jeans	150	0	150	Hiah

Query executed successfully.

Name : Sudhanshu Jha

Q48. Product with zero order in a specific category

```
SELECT
    p.ProductID,
    p.ProductName,
    c.CategoryName
FROM Products p
JOIN Categories c ON p.CategoryID = c.CategoryID
WHERE p.CategoryID = 4
    AND p.ProductID NOT IN (
        SELECT DISTINCT ProductID FROM OrderDetails
    );
```

	ProductID	ProductName	CategoryName
1	104	Office Chair	Office

Q49. Product with zero order in all category

```
SELECT
    p.ProductId,
    p.ProductName,
    p.CategoryID,
    c.CategoryName,
    od.Quantity
FROM Products p
JOIN
    Categories c ON c.CategoryID = p.CategoryID
LEFT JOIN
    OrderDetails od ON od.ProductID = p.ProductId
WHERE od.ProductID IS NULL
;
```

	ProductId	ProductName	CategoryID	CategoryName	Quantity
1	101	Laptop	1	Electronics	NULL
2	104	Office Chair	4	Office	NULL
3	105	Gas Stove	5	Kitchen	NULL
4	106	Jeans	6	Fashion	NULL
5	107	Football	7	Sports	NULL
6	109	Whey	9	Health & Nutrition	NULL
7	110	Lipstick	10	Beauty	NULL

Q50. Show top 5 categories by total revenue (after discount)

```
SELECT TOP 5
    c.CategoryID,
    c.CategoryName,
    SUM(od.Quantity * (p.Price - ISNULL(d.DiscountAmount, 0))) AS TotalRevenue
FROM Categories c
JOIN
    Products p ON p.CategoryID = c.CategoryID
JOIN
    OrderDetails od ON od.ProductID = p.ProductId
JOIN
    Discounts d ON d.ProductID = p.ProductId
GROUP BY c.CategoryID, c.CategoryName
Order By TotalRevenue DESC
;
```

	CategoryID	CategoryName	TotalRevenue
1	3	HouseHold	726900.00
2	1	Electronics	461899.00
3	5	Kitchen	297594.00
4	4	Office	75717.00
5	6	Fashion	26471.00

Q51. Get customers who made more than 2 purchases

```
SELECT
    c.CustomerID,
    c.CustomerName,
    p.ProductName,
    od.Quantity
FROM Customers c
JOIN
    Orders o ON o.CustomerID = c.CustomerID
JOIN
    OrderDetails od ON od.OrderID = o.OrderID
JOIN
    Products p ON p.ProductId = od.ProductID
WHERE
    od.Quantity >= 3
;
```

	CustomerID	CustomerName	ProductName	Quantity
1	23	Aditi Kulkarni	Keyboard	3
2	30	Lavanya Das	Pencil	4
3	25	Siddharth Sen	Dinning Table	3
4	11	Rahul Sinha	File Folders	3
5	16	Nikhil Jain	Electric Kettle	3
6	22	Manav Shetty	Jeans	3
7	36	Raghav Nanda	Beard Oil	3
8	43	Tejas Pillai	Creatine	3
9	49	Rohit Vora	Moisturizer	3
10	1	Alice Parker	A4 Printing Paper	3

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Q52. Get customers who made more than 1 orders

```
SELECT
    c.CustomerID,
    c.CustomerName,
    COUNT(o.OrderID) AS TotalOrders
FROM Customers c
JOIN Orders o ON o.CustomerID = c.CustomerID
GROUP BY c.CustomerID, c.CustomerName
HAVING COUNT(o.OrderID) > 1;
```

	CustomerID	CustomerName	TotalOrders
1	1	Alice Parker	2
2	5	Kunal Singh	2
3	6	Isha Gupta	2
4	12	Kriti Rao	2
5	13	Tanya Desai	2
6	15	Sanya Khan	2
7	19	Reena Malhotra	2
8	30	Lavanya Das	2

Q53. Top 5 customers by total spending (Per product)

```
SELECT TOP 5
    c.CustomerID,
    c.CustomerName,
    p.ProductName,
    p.CategoryID,
    p.Price,
    SUM(od.Quantity * (Price - ISNULL(DiscountAmount, 0))) AS TotalRevenue
FROM Customers c
JOIN
    Orders o ON o.CustomerID = c.CustomerID
JOIN
    OrderDetails od ON od.OrderID = o.OrderID
JOIN
    Products p ON p.ProductId = od.ProductID
LEFT JOIN
    Discounts d ON d.ProductID = p.ProductId
GROUP BY
    c.CustomerID, c.CustomerName, p.ProductName, p.Price, p.CategoryID
ORDER BY
    TotalRevenue DESC
;
```

	CustomerID	CustomerName	ProductName	CategoryID	Price	TotalRevenue
1	25	Siddharth Sen	Dinning Table	3	65000.00	372000.00
2	8	Sneha Reddy	Oven	5	37000.00	141000.00
3	27	Mohit Deshmukh	Oven	5	37000.00	141000.00
4	12	Kriti Rao	TV	1	70000.00	133000.00
5	19	Reena Malhotra	TV	1	70000.00	133000.00

Q54. Top 5 customers by total spending

```
SELECT TOP 5
  c.CustomerID,
  c.CustomerName,
  SUM(od.Quantity * (p.Price - ISNULL(d.DiscountAmount, 0))) AS TotalSpent
FROM Customers c
JOIN Orders o ON o.CustomerID = c.CustomerID
JOIN OrderDetails od ON od.OrderID = o.OrderID
JOIN Products p ON p.ProductID = od.ProductID
LEFT JOIN Discounts d ON d.ProductID = p.ProductID
GROUP BY c.CustomerID, c.CustomerName
ORDER BY TotalSpent DESC;
```

	CustomerID	CustomerName	TotalSpent
1	25	Siddharth Sen	372000.00
2	12	Kriti Rao	257000.00
3	8	Sneha Reddy	141000.00
4	27	Mohit Deshmukh	141000.00
5	19	Reena Malhotra	140400.00