1. **HOW CAN WE CHANGE EXISTING TABLE STRUCTURE(ALTER)**

Query:

```
ALTER TABLE PRODUCT
ADD PRODUCT_QUALITY VARCHAR(100);
```

Output:

```
351 •  DESC PRODUCT;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
PRODUCT_NAME	varchar(50)	YES		NULL	
PRICE	decimal(10,2)	YES		NULL	
STOCK_QUANTITY	int(11)	YES		NULL	
CATEGORY_ID	int(11)	YES	MUL	NULL	
BRAND	varchar(10)	YES		NULL	
PRODUCT_QUALITY	varchar(100)	YES		NULL	

Result 14

2. **DROPPING A SAME COLUMN WHICH IS BEEN ALTER BEFORE.**

Query:

```
ALTER TABLE PRODUCT
DROP COLUMN PRODUCT_QUALITY;
```

Output:

```
351 •  DESC PRODUCT;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
PRODUCT_ID	int(11)	NO	PRI	NULL	
PRODUCT_NAME	varchar(50)	YES		NULL	
PRICE	decimal(10,2)	YES		NULL	
STOCK_QUANTITY	int(11)	YES		NULL	
CATEGORY_ID	int(11)	YES	MUL	NULL	
BRAND	varchar(10)	YES		NULL	

Result 15 | Read Only

Output

Action Output

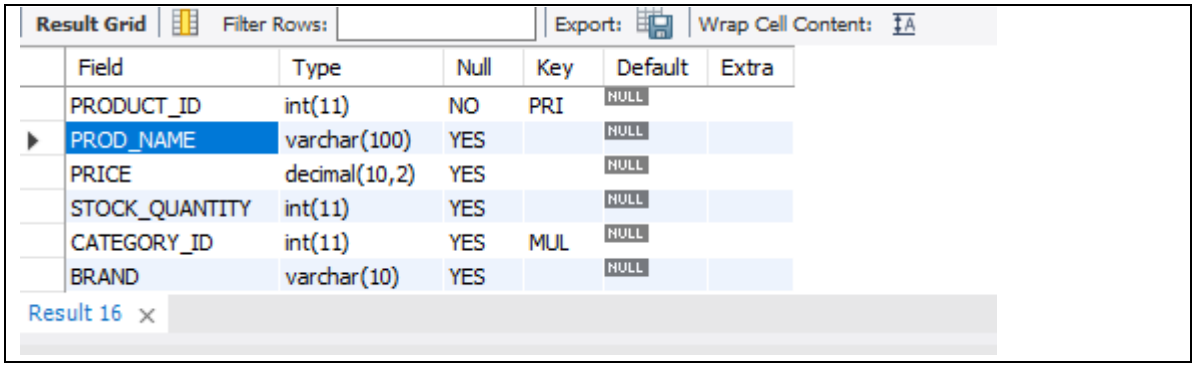
#	Time	Action	Message
86	20:44:58	DESC PRODUCT	7 row(s) returned
87	20:51:53	ALTER TABLE PRODUCT DROP COLUMN P...	0 row(s) affected Records: 0 Duplicates: 0 Warnings: 0
88	20:52:00	DESC PRODUCT	6 row(s) returned

3. HOW TO RENAME THE EXISTING TABLE?

Query:

```
ALTER TABLE PRODUCT
CHANGE COLUMN PRODUCT_NAME PROD_NAME VARCHAR(100);
```

Output:



Result Grid | Filter Rows: | Export: | Wrap Cell Content:

Field	Type	Null	Key	Default	Extra
PRODUCT_ID	int(11)	NO	PRI	NULL	
PROD_NAME	varchar(100)	YES		NULL	
PRICE	decimal(10,2)	YES		NULL	
STOCK_QUANTITY	int(11)	YES		NULL	
CATEGORY_ID	int(11)	YES	MUL	NULL	
BRAND	varchar(10)	YES		NULL	

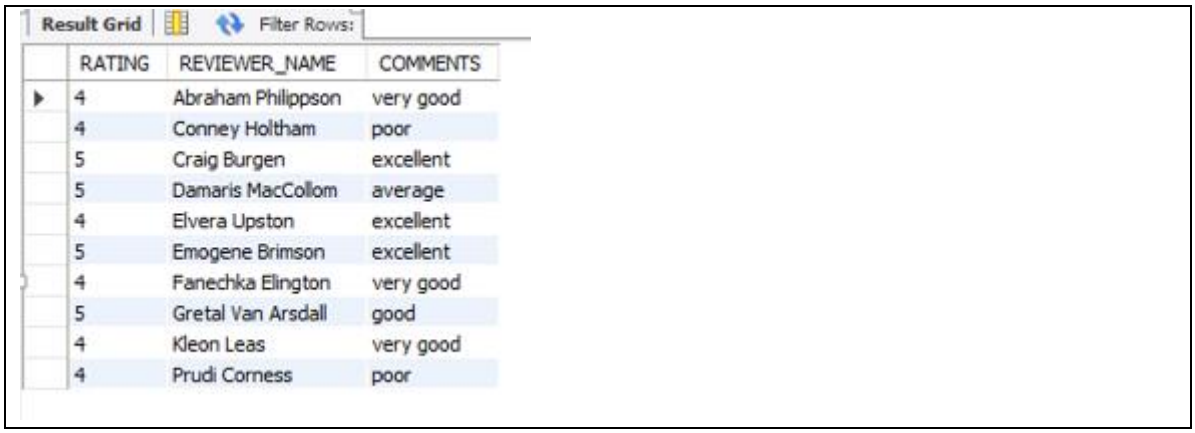
Result 16

4. FIND THE RATING GREATER THEN 3 AND NAME IN ASECNDING ORDER

QUERY:

```
SELECT RATING,REVIEWER_NAME,COMMENTS
FROM REVIEWS
WHERE RATING>3
ORDER BY REVIEWER_NAME ASC;
```

Output:



Result Grid | Filter Rows:

RATING	REVIEWER_NAME	COMMENTS
4	Abraham Philippson	very good
4	Conney Holtham	poor
5	Craig Burgen	excellent
5	Damaris MacCollom	average
4	Elvera Upston	excellent
5	Emogene Brimson	excellent
4	Fanechka Elington	very good
5	Gretal Van Arsdall	good
4	Kleon Leas	very good
4	Prudi Corness	poor

5. **Fetch a details of customers who have purchased at least one product?**

Query:

```
SELECT customer1.customer_id,customer1.first_name,COUNT(orders.orderID) as TOTAL_
FROM customer1
INNER JOIN orders ON customer1.customer_id = orders.customer_id
GROUP BY customer1.customer_id HAVING COUNT(orders.orderID)>=1;
```

Output:

customer_id	first_name	TOTAL_ORDERS
1	Chery	1
2	Joann	1
3	Jordan	1
4	Fred	1
5	Inger	1
6	Virginie	1
7	Kinnie	1
8	Siward	1
9	Lucy	1
10	Willette	1

6. **Fetch the details of the customers who have name ending from 'A' and has purchase one item?**

Query:

```
SELECT customer1.customer_id,customer1.first_name,COUNT(orders.orderID)as TOTAL
FROM customer1
INNER JOIN orders ON customer1.customer_id = orders.customer_id
GROUP BY customer1.customer_id
HAVING COUNT(orders.orderID) AND customer1.first_name LIKE "%A";
```

Output:

customer_id	first_name	TOTAL
12	Philomena	1
14	Johnna	1
19	Gloriana	1
21	Vinita	1
24	Eliza	1
25	Zilvia	1

7. **Fetch the details of the customers who have name start from 'C'**

Query:

```
SELECT customer1.customer_id,customer1.first_name,COUNT(orders.orderID)as TOTAL
FROM customer1
INNER JOIN orders ON customer1.customer_id = orders.customer_id
GROUP BY customer1.customer_id
HAVING COUNT(orders.orderID) AND customer1.first_name LIKE "C%";
```

Output:

Result Grid | Filter Rows:

customer_id	first_name	TOTAL
1	Chery	1
16	Cedric	1

8. **Lists the number of orders sent by each ship**

Query:

```
SELECT Ship.Recipient_Name, COUNT(Orders.OrderID) AS Num_Orders
FROM Orders
LEFT JOIN Ship ON Orders.customer_id = Ship.Shipping_id
GROUP BY Recipient_Name;
```

Output:

Recipient_Name	Num_Orders
Amelina Kelleher	1
Angelica Bavridge	1
Arda Crumpe	1
Bell Faro	1
Caron Kelby	1

Result 27

9. **Lists of the product "ajit" or "ak" or "akash" who have registered (or)**

Query:

```
SELECT product.prod_name, COUNT(Orders.OrderID) AS NumberOfOrders
FROM (Orders
INNER JOIN product ON Orders.OrderID = product.product_id)
where prod_name = "ajit" or prod_name = "ak" or prod_name = "akash"
GROUP BY product.prod_name
HAVING COUNT(Orders.OrderID);
```

Output:

prod_name	NumberOfOrders
AJIT	1
AK	1
AKASH	1

10. How much count of the brand in the product table (aggregate function – desc order)?

Query:

```
SELECT BRAND, COUNT(*) AS CNT
FROM PRODUCT
GROUP BY BRAND
ORDER BY COUNT(*) DESC;
```

Output:

BRAND	CNT
WILSON	4
PUMA	4
SUMSUNG	4
GOOGLE	4
ADDIDAS	3
FILA	2
APPLE	2
NIKE	1
SKECHERS	1

11. **How much count of the name which has "A" in the second position (aggregate function - asc order)?**

Query:

```
select recipient_name, count(*) as cnt
from ship
where recipient_name like "_a%"
group by recipient_name
having count(recipient_name)
order by count(recipient_name) asc;
```

Output:

recipient_name	cnt
Farra Nasi	1
Valera Graffin	1
Vanya Kelberer	1
Warner Gatiss	1
Kakalina Hartlebury	1
Caron Kelby	1
Kaine Swinford	1

12. **We want average number of orders as per customer as per order date (sub-query)?**

Query:

```
select order_date, avg(num_order) as numbers from
(select customer_id, order_date, count(customer_id) as num_order
from orders
group by customer_id,order_date) sub
group by customer_id;
```

Output:

Result Grid | Filter Rows:

order_date	numbers
2022-10-14	1.0000
2021-06-29	1.0000
2023-10-25	1.0000
2023-09-14	1.0000
2022-06-18	1.0000
2021-03-24	1.0000
2022-02-08	1.0000
2023-01-03	1.0000
2021-11-21	1.0000
2021-03-28	1.0000
2021-03-18	1.0000
2024-03-18	1.0000
2024-04-05	1.0000

Result 44

13. How to find first name and order date together?(inner join)

Query:

```
SELECT Orders.OrderID, Customer1.first_Name, Orders.Order_Date
FROM Orders
INNER JOIN Customer1 ON Orders.Customer_ID=Customer1.Customer_ID;
```

Output:

OrderID	first_Name	Order_Date
1	Chery	2022-10-14
2	Joann	2021-06-29
3	Jordan	2023-10-25
4	Fred	2023-09-14
5	Inger	2022-06-18
6	Virginie	2021-03-24
7	Kinnie	2022-02-08
8	Siward	2023-01-03
9	Lucy	2021-11-21
10	Willette	2021-03-28
11	Ricoriki	2021-03-18
12	Philomena	2024-03-18
13	Justine	2024-04-05

Result 45

14. I want to know the product (brand) and business I got?

Query:

```
select brand, sum(price)as total
from product
group by brand
order by price desc;
```

Output:

brand	total
SKECHERS	98493.89
PUMA	289425.28
SUMSUNG	296982.46
NIKE	31732.88
GOOGLE	151765.87
FILA	70187.51
WILSON	233567.84
APPLE	93906.04
ADDIDAS	63082.80

15. How to selects all orders with customer and shipper information (joining 3 tables)

Query:

```
SELECT ORDERS.ORDERID, CUSTOMER1.FIRST_NAME,SHIP.RECIPIENT_NAME
FROM ORDERS
INNER JOIN CUSTOMER1 ON ORDERS.CUSTOMER_ID = CUSTOMER1.CUSTOMER_ID
JOIN SHIP ON ORDERS.CUSTOMER_ID = SHIP.SHIPPING_ID
GROUP BY ORDERS.ORDERID, CUSTOMER1.FIRST_NAME, SHIP.RECIPIENT_NAME
having orderid>15
order by FIRST_NAME,ORDERID,RECIPIENT_NAME asc;
```

Output:

ORDERID	FIRST_NAME	RECIPIENT_NAME
16	Cedric	Demetris Bondley
24	Eliza	Fianna Monday
19	Gloriana	Shara MacAleese
20	Mendy	Farra Nasi
17	Nicolai	Arda Crumpe
18	Ricard	Clementia Kier
22	Saunders	Bell Faro
23	Tadio	Gladi Gosden
21	Vinita	Sonnie Ryton
25	Zilvia	Vanya Kelberer

16. FIND OUT IN WHICH MONTH BETWEEN MAR TO NOV IS THE ORDER TAKEN AND WHICH DAY BETWEEN 10 TO 31 IT WAS DELIVERED LIMIT AS PER 3.

QUERY:

```
SELECT ORDERS.ORDER_DATE,SHIP.SHIP_DATE,SHIP.DELIVERY_DATE
FROM ORDERS
JOIN SHIP ON ORDERS.ORDERID = SHIP.SHIPPING_ID
WHERE ORDERS.ORDER_DATE BETWEEN "2020-03-13" AND "2022-11-04" OR
SHIP.DELIVERY_DATE NOT BETWEEN "2022-10-21" AND "2022-10-30"
GROUP BY ORDER_DATE,SHIP_DATE,DELIVERY_DATE
LIMIT 3;
```

OUTPUT:

ORDER_DATE	SHIP_DATE	DELIVERY_DATE
2020-03-13	2022-11-17	2022-04-23
2020-03-31	2022-01-12	2022-03-26
2020-05-20	2022-07-02	2022-01-26

17. IN WHICH 4 MONTH ORDER IS PLACED?

QUERY:

```
SELECT DATE_FORMAT(ORDER_DATE, "%M" "%Y") AS ODR_DATE,COUNT(ORDERID)AS ORDR_CNT
FROM ORDERS
GROUP BY ORDER_DATE
HAVING MONTH(ORDER_DATE) > 04
ORDER BY ORDER_DATE DESC
LIMIT 4 OFFSET 4;
```

OUTPUT:

ODR_DATE	ORDR_CNT
July2023	1
May2023	1
November2022	1
October2022	1

18. WHICH 5 PRODUCTS HAVE MAXIMUM AMOUNT OF DISCOUNT?

QUERY:

```
SELECT BRAND, PROD_NAME, DISCOUNT_AMOUNT
FROM PRODUCT
JOIN DISCOUNTS ON PRODUCT.PRODUCT_ID = DISCOUNTS.DISCOUNT_ID
ORDER BY DISCOUNT_AMOUNT DESC
LIMIT 5 OFFSET 5;
```

OUTPUT:

BRAND	PROD_NAME	DISCOUNT_AMOUNT
ADDIDAS	TOM	840.40
WILSON	DANIEL	827.33
GOOGLE	ELESHA	779.04
PUMA	CRISY	760.73
WILSON	RAMU	684.02

19. WHICH TOP 6 BRAND HAS MAX ORDER PLACED?

QUERY:

```
SELECT PRODUCT.BRAND,CATEGORIES.CATEGORY_NAME, SUM(ORDER_DETAILS.QUANTITY)AS QT
FROM CATEGORIES
JOIN PRODUCT ON CATEGORIES.CATEGORY_ID = PRODUCT.CATEGORY_ID
JOIN ORDER_DETAILS ON PRODUCT.PRODUCT_ID = ORDER_DETAILS.PRODUCT_ID
GROUP BY CATEGORIES.CATEGORY_NAME
ORDER BY QT DESC
LIMIT 6;
```

OUTPUT:

BRAND	CATEGORY_NAME	QT
SUMSUNG	lprando0	911.61
APPLE	ldrabblek	904.62
PUMA	btalksg	897.22
ADDIDAS	theapj	864.52
APPLE	fyanov4	834.84
PUMA	dabotsonf	832.02

20. WANT THE LIST OF 5 CUSTOMER NAME WHO ORDER IN MONTH OF MAR TO OCT?

QUERY:

```
SELECT CUSTOMER1.FIRST_NAME,ORDERS.ORDER_DATE
FROM ORDERS
RIGHT JOIN CUSTOMER1 ON ORDERS.CUSTOMER_ID = CUSTOMER1.CUSTOMER_ID
RIGHT JOIN SHIP ON ORDERS.ORDERID = SHIP.ORDERID
WHERE MONTH(ORDERS.ORDER_DATE) BETWEEN 3 AND 10
LIMIT 5 OFFSET 5;
```

OUTPUT:

FIRST_NAME	ORDER_DATE
Virginie	2021-03-24
Willette	2021-03-28
Ricoriki	2021-03-18
Philomena	2024-03-18
Justine	2024-04-05

21. WHICH 4 PRODUCT HAS BEEN ORDER IN THE MONTH APR 2022 TO AUG 2022?

QUERY:

```
SELECT DATE_FORMAT(ORDER_DATE, "%d"'-'"%M"'-'"%Y") AS OR_DATE,PROD_NAME,PRICE
FROM ORDERS
JOIN ORDER_DETAILS ON ORDERS.ORDERID = ORDER_DETAILS.ORDERID
JOIN PRODUCT ON PRODUCT.PRODUCT_ID = ORDER_DETAILS.PRODUCT_ID
WHERE MONTH(ORDER_DATE) BETWEEN "04" AND "08"
ORDER BY PROD_NAME ASC
LIMIT 4;
```

OUTPUT:

OR_DATE	PROD_NAME	PRICE
09-May-2023	AK	51854.42
17-July-2023	ALICE	23051.67
18-June-2022	JOSEPH	13771.50
06-July-2021	MUKESH	98493.89