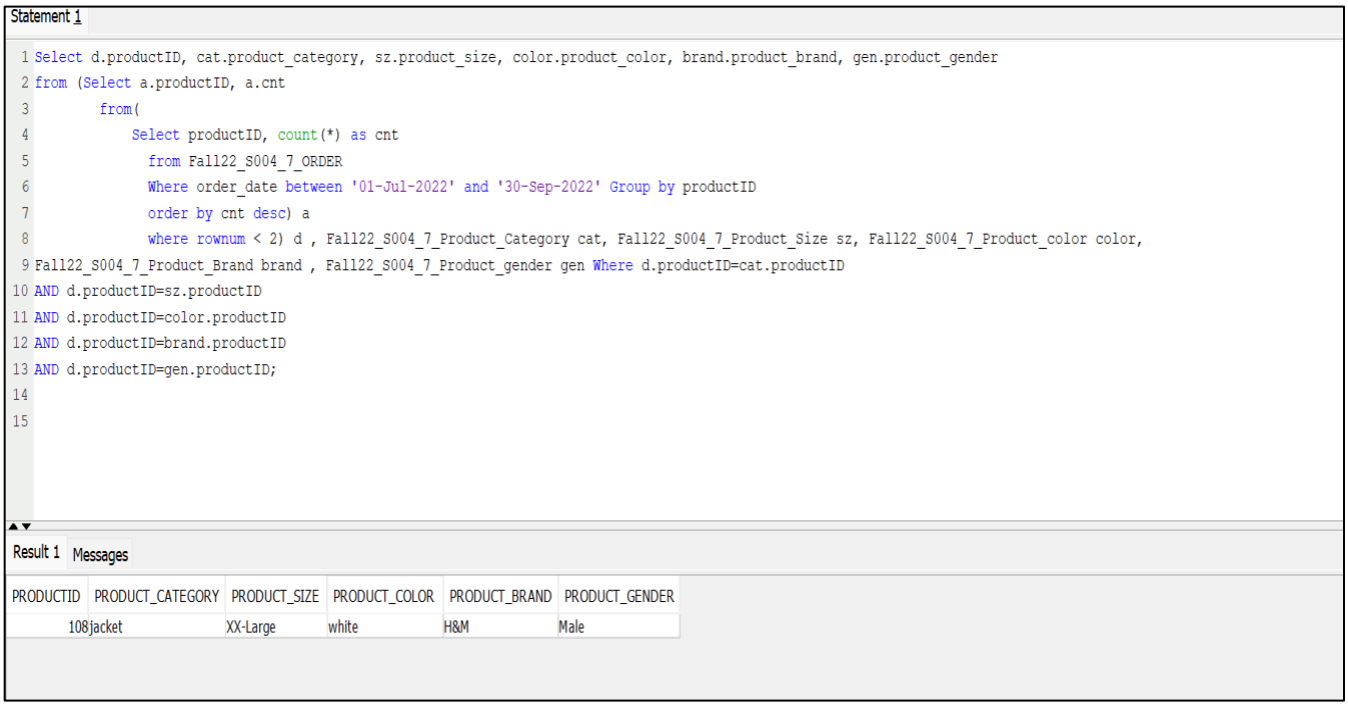
Query 1: Which product, brand, color, size, gender is ordered frequently.

```
Select d.productID, cat.product_category, sz.product_size, color.product_color, brand.product_brand, gen.product_gender
from (Select a.productID, a.cnt
      from(
         Select productID, count(*) as cnt
          from Fall22_S004_7_ORDER
          Where order_date between '01-Jul-2022' and '30-Sep-2022' Group by productID
          order by cnt desc) a
          where rownum < 2) d , Fall22_S004_7_Product_Category cat, Fall22_S004_7_Product_Size sz,
Fall22_S004_7_Product_color color,
Fall22_S004_7_Product_Brand brand , Fall22_S004_7_Product_gender gen Where d.productID=cat.productID
AND d.productID=sz.productID
AND d.productID=color.productID
AND d.productID=brand.productID
AND d.productID=gen.productID;
```



Query 2: Which product, brand, color, size, gender is ordered frequently by customers that generates maximum profit.

```
Select d.productID, cat.product_category, sz.product_size, color.product_color, brand.product_brand, gen.product_gender,
d.profit, d.cnt
from (
        select b.productID, b.cnt ,b.profit
        From (
                Select a.productID, a.cnt, (p.selling_price-p.cost_price) as profit
                from(
                        Select productID, count(*) as cnt
                        from Fall22_S004_7_ORDER
                        Where order_date between '01-Jul-2022' and '30-Sep-2022' Group by productID) a,
                        Fall22_S004_7_Product p
                Where a.productID=p.productID
                Order by profit desc
        ) b
Fetch first 1 row only ) d, Fall22_S004_7_Product_Category cat, Fall22_S004_7_Product_Size sz, Fall22_S004_7_Product_color
color, Fall22_S004_7_Product_Brand brand , Fall22_S004_7_Product_gender gen
Where d.productID=cat.productID
AND d.productID=sz.productID
AND d.productID=color.productID
AND d.productID=brand.productID
AND d.productID=gen.productID;
```

Statement 1

```
1  Select d.productID, cat.product_category, sz.product_size, color.product_color, brand.product_brand, gen.product_gender, d.profit, d.cnt
2  from (select b.productID, b.cnt ,b.profit
3  From (
4  Select a.productID, a.cnt, (p.selling_price-p.cost_price) as profit
5  from(
6  Select productID, count(*) as cnt
7  from Fall22_S004_7_ORDER
8  Where order_date between '01-Jul-2022' and '30-Sep-2022' Group by productID) a, Fall22_S004_7_Product p
9  Where a.productID=p.productID
10 Order by profit desc
11 ) b
12 Fetch first 1 row only ) d, Fall22_S004_7_Product_Category cat, Fall22_S004_7_Product_Size sz, Fall22_S004_7_Product_color color,
13 Fall22_S004_7_Product_Brand brand , Fall22_S004_7_Product_gender gen Where d.productID=cat.productID
14 AND d.productID=sz.productID
15 AND d.productID=color.productID
16 AND d.productID=brand.productID
17 AND d.productID=gen.productID;
18
```

Result 1 Messages

PRODUCTID	PRODUCT_CATEGORY	PRODUCT_SIZE	PRODUCT_COLOR	PRODUCT_BRAND	PRODUCT_GENDER	PROFIT	CNT
134	Tshirt	Large	Lime	H&M	Male	450	1

Query 3: Identify the regular customer

```
select b.custID, cus.name, b.cnt, round((sysdate-dob)/365) as Age
from(
        Select a.custID ,a.cnt
        From (
                Select custID, count(custID) as cnt
                From Fall22_S004_7_ORDER
                Where order_date between '01-Jul-2022' and '30-Sep-2022' Group by custID
                Order by cnt desc
                ) a
        Where rownum < 2) b , Fall22_S004_7_CUSTOMER cus
where b.custid = cus.custid
order by b.cnt desc;
```

Statement 1

```
1  select b.custID, cus.name, b.cnt, round((sysdate-dob)/365) as Age
2  from(
3  Select a.custID ,a.cnt
4  From (
5  Select custID, count(custID) as cnt
6  From Fall22_S004_7_ORDER
7  Where order_date between '01-Jul-2022' and '30-Sep-2022' Group by custID
8  Order by cnt desc
9  ) a Where rownum < 2
10 ) b , Fall22_S004_7_CUSTOMER cus
11 where b.custid = cus.custid order by b.cnt desc;
12
13
```

Result 1 | Messages

CUSTID	NAME	CNT	AGE
34	Anu	3	13

Query 4: Identifying the frequency of orders made by customers based on the location.

```
select a.city ,a.cnt as OrderCount
From
        ( Select city, count(*) cnt
          From Fall22_S004_7_ORDER o, Fall22_S004_7_CUSTOMER cus
          Where o.custID=cus.custID and order_date between '01-Jul-2022' and '30-Sep-2022'
          Group by city
          Order by cnt desc) a
Fetch first 5 row only;
```

Statement 1

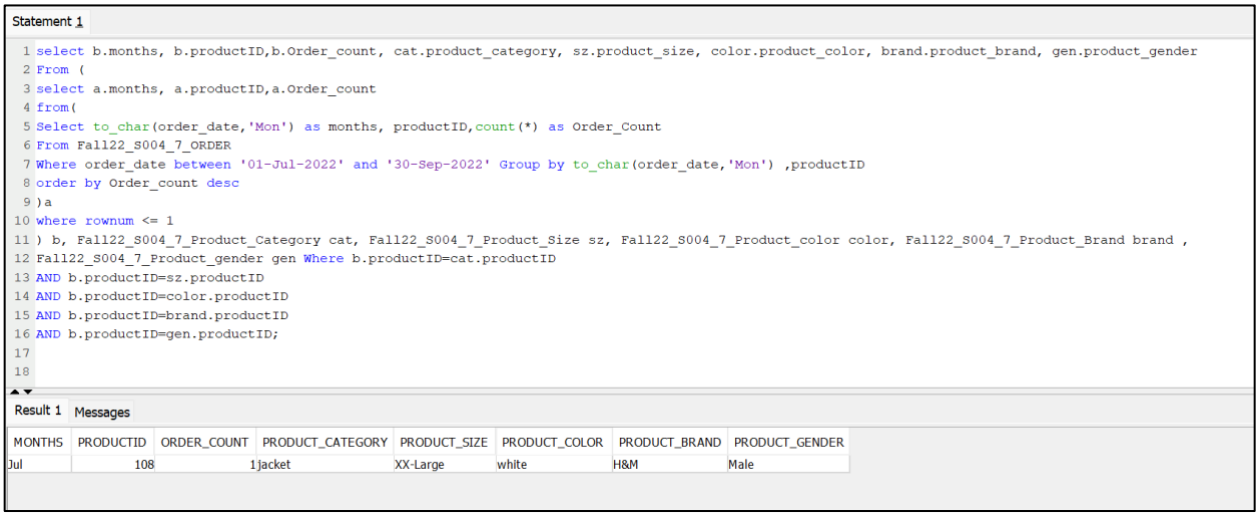
```
1 select a.city ,a.cnt as OrderCount
2 From
3 (Select city, count(*) cnt
4 From Fall22_S004_7_ORDER o, Fall22_S004_7_CUSTOMER cus Where o.custID=cus.custID and order_date between '01-Jul-2022' and '30-Sep-2022' Group by city
5 Order by cnt desc) a
6 Fetch first 5 row only;
7
```

Result 1 | Messages

CITY	ORDERCOUNT
Corpus cristi	3
Laredo	3
Sacramento	3
Dallas	1
Anchorage	1

Query 5: Which month of the year has the highest no of orders by the customer based on product, brand, color, size, gender

```
select b.months, b.productID,b.Order_count, cat.product_category, sz.product_size, color.product_color,
brand.product_brand, gen.product_gender
From (
        select a.months, a.productID,a.Order_count
        from(
                Select to_char(order_date,'Mon') as months, productID,count(*) as Order_Count
                From Fall22_S004_7_ORDER
                Where order_date between '01-Jul-2022' and '30-Sep-2022' Group by to_char(order_date,'Mon') ,productID
                order by Order_count desc
                )a
        where rownum <= 1) b, Fall22_S004_7_Product_Category cat, Fall22_S004_7_Product_Size sz,
        Fall22_S004_7_Product_color color, Fall22_S004_7_Product_Brand brand ,
        Fall22_S004_7_Product_gender gen
        Where b.productID=cat.productID
        AND b.productID=sz.productID
        AND b.productID=color.productID
        AND b.productID=brand.productID
        AND b.productID=gen.productID;
```



Statement 1

```
select b.months, b.productID,b.Order_count, cat.product_category, sz.product_size, color.product_color, brand.product_brand, gen.product_gender
From (
select a.months, a.productID,a.Order_count
from(
Select to_char(order_date,'Mon') as months, productID,count(*) as Order_Count
From Fall22_S004_7_ORDER
Where order_date between '01-Jul-2022' and '30-Sep-2022' Group by to_char(order_date,'Mon') ,productID
order by Order_count desc
)a
where rownum <= 1
) b, Fall22_S004_7_Product_Category cat, Fall22_S004_7_Product_Size sz, Fall22_S004_7_Product_color color, Fall22_S004_7_Product_Brand brand ,
Fall22_S004_7_Product_gender gen Where b.productID=cat.productID
AND b.productID=sz.productID
AND b.productID=color.productID
AND b.productID=brand.productID
AND b.productID=gen.productID;
```

Result 1 | Messages

MONTHS	PRODUCTID	ORDER_COUNT	PRODUCT_CATEGORY	PRODUCT_SIZE	PRODUCT_COLOR	PRODUCT_BRAND	PRODUCT_GENDER
Jul	108	1	jacket	XX-Large	white	H&M	Male

Query 6: Which month of the year has the highest number of new registration of what age

```
Select c.joining_Mon, c.age_range, cnt
From (
        Select b.joining_Mon, b.age_range, count(b.joining_Mon) as cnt
        from(
                Select custID, joining_Mon,
                Case When age<18 then 'under_18' When age>=18 then '18_or_above'
                End age_range
                From(
                        select custID, round((sysdate-dob)/365) as age , to_char(Joining_date,'Mon') as joining_Mon
                        From Fall22_S004_7_CUSTOMER
                        Where Joining_date between '01-Jan-2022' and sysdate )a
                ) b
                Group by joining_Mon, age_range
                order by cnt desc ) c Where rownum < = 2 ;
```

Statement 1

```
1  Select c.joining_Mon, c.age_range, cnt
2  From (
3  Select b.joining_Mon, b.age_range, count(b.joining_Mon) as cnt
4  from(
5  Select custID, joining_Mon,
6  Case When age<18 then 'under_18' When age>=18 then '18_or_above'
7  End age_range
8  From(
9  select custID, round((sysdate-dob)/365) as age , to_char(Joining_date,'Mon') as joining_Mon
10 From Fall22_S004_7_CUSTOMER
11 Where Joining_date between '01-Jan-2022' and sysdate )a
12 ) b
13 Group by joining_Mon, age_range
14 order by cnt desc ) c Where rownum < = 2 ;
15
16
17
```

Result 1 | Messages

JOINING_MON	AGE_RANGE	CNT
Jul	under_18	2
Sep	18_or_above	1

Query 7: Which product of a particular supplier is selling most with good reviews and has a better profit margin for the company

```
select s.supplierID, d.ProductId, d.avg_ratings, d.profit
from(
        select b.ProductId, b.profit, b.avg_ratings, b.SupplierID
from (Select a.productID, a.avg_ratings, (p.selling_price-p.cost_price) as profit, p.SupplierID
         from
                  (Select productID, avg(ratings) as avg_ratings
                  From Fall22_S004_7_CUSTOMERFEEDBACK
                  Where feed_date between '01-Jul-2022' and '30-Sep-2022'
                  Group by productID
                  having avg(ratings) > 3
)a, Fall22_S004_7_Product p
  where a.productid = p.productid
  Order by profit desc) b where
  rownum < 2) d, Fall22_S004_7_Supplier s
  Where d.SupplierID = s.SupplierID;
```

Statement 1

```
1  select s.supplierID, d.ProductId, d.avg_ratings, d.profit
2     from(
3     select b.ProductId, b.profit, b.avg_ratings, b.SupplierID
4   from (Select a.productID, a.avg_ratings, (p.selling_price-p.cost_price) as profit, p.SupplierID
5        from
6        (Select productID, avg(ratings) as avg_ratings
7           From Fall22_S004_7_CUSTOMERFEEDBACK
8           Where feed_date between '01-Jul-2022' and '30-Sep-2022'
9           Group by productID
10          having avg(ratings) > 3
11         )a, Fall22_S004_7_Product p
12   where a.productid = p.productid
13   Order by profit desc) b where
14   rownum < 2) d, Fall22_S004_7_Supplier s
15   Where d.SupplierID = s.SupplierID;
16
```

Result 1 | Messages

SUPPLIERID	PRODUCTID	AVG_RATINGS	PROFIT
12	134	4	450

Query 8: Identify the least selling product in the inventory least selling product

Least selling product

select p.ProductID, s.supplierid,s.name as supplier_name, Qty_Avail, Supplied_Qty, (p.Supplied_Qty - i.Qty_Avail) as lowest_sale
from Fall22_S004_7_Inventory i, Fall22_S004_7_Product p, Fall22_s004_7_supplier s
where i.Productid = p.ProductID and s.supplierid= p.supplierid
Order by lowest_sale asc
fetch first 5 rows only ;

```
118 select p.ProductID, s.supplierid,s.name as supplier_name, Qty_Avail, Supplied_Qty, ( p.Supplied_Qty - i.Qty_Avail ) as lowest_sale
119   from Fall22_S004_7_Inventory i, Fall22_S004_7_Product p, Fall22_s004_7_supplier s
120   where i.Productid = p.ProductID and s.supplierid= p.supplierid
121   Order by lowest_sale asc
122  fetch first 5 rows only ;
123
124 /* most selling product */
125
```

Result 1 | Result 2 | Result 3 | Result 4 | Result 5 | Result 6 | Result 7 | Result 8 | Result 9 | Result 10 | Result 11 | Result 12 | Messages

PRODUCTID	SUPPLIERID	SUPPLIER_NAME	QTY_AVAIL	SUPPLIED_QTY	LOWEST_SALE ▲
101	1	JourneyAlvina@gmail.com	10	10	0
124	31	Kason Stone	27	27	0
125	25	Lori Darius	28	28	0
117	1	JourneyAlvina@gmail.com	20	20	0
102	3	Brynn Reagan	9	10	1

most selling product

select p.ProductID, s.supplierid,s.name as supplier_name, Qty_Avail, Supplied_Qty, (p.Supplied_Qty - i.Qty_Avail) as highest_sale
from Fall22_S004_7_Inventory i, Fall22_S004_7_Product p, Fall22_s004_7_supplier s
where i.Productid = p.ProductID and s.supplierid= p.supplierid
Order by highest_sale desc
fetch first 5 rows only ;

Statement 1

```
1 select p.ProductID, s.supplierid,s.name as supplier_name, Qty_Avail, Supplied_Qty, ( p.Supplied_Qty - i.Qty_Avail ) as highest_sale
2   from Fall22_S004_7_Inventory i, Fall22_S004_7_Product p, Fall22_s004_7_supplier s
3   where i.Productid = p.ProductID and s.supplierid= p.supplierid
4   Order by highest_sale desc
5  fetch first 5 rows only ;
6
```

Result 1 | Messages

PRODUCTID	SUPPLIERID	SUPPLIER_NAME	QTY_AVAIL	SUPPLIED_QTY	HIGHEST_SALE
105	23	Daniel Noelene	24	50	26
118	33	Abigayle Bobbi	23	45	22
109	8	Lorrie Zandra	10	26	16
135	11	Phillis Phil	10	24	14
103	2	samuel@gmail.com	8	21	13

Rollup Query:

select EXTRACT(year FROM order_date) As Year, productid , sum(Total_amt) as Annual_Sales_amount
from Fall22_S004_7_ORDER
group by rollup (EXTRACT(year FROM order_date) , productid) order by Year;

Statement 1

```
1 select  EXTRACT(year FROM order_date) As Year, productid , sum(Total_amt) as Annual_Sales_amount
2 from Fall22_S004_7_ORDER
3 group by rollup ( EXTRACT(year FROM order_date) , productid) order by Year;
4
```

Result 1 | Messages

YEAR	PRODUCTID	ANNUAL_SALES_AMOUNT
1998	112	810
1998		810
2003	132	3402
2003		3402
2004	136	2106
2004		2106
2008	109	432
2008	145	810
2008		1242
2009	103	918
2009		918
2010	143	880.2
2010	145	810
2010		1690.2
2012	105	378
2012	121	187.92
2012	122	105.84
2012	128	702
2012	145	810
2012	150	486
2012		2669.76
2013	109	432
2013	123	201.96
2013	143	880.2
2013		1514.16
2015	145	810
2015	150	322.92
2015		1132.92
2016	106	54

Cube Query:

select custid , productid, sum(Total_amt) as Amount_for_all_orders
from Fall22_S004_7_ORDER where order_date between '01-Jul-2022' and '30-Sep-2022'
group by cube (productid, custid) order by custid;

Statement 1

```
1 select  custid , productid, sum(Total_amt) as Amount_for_all_orders
2 from Fall22_S004_7_ORDER where order_date between '01-Jul-2022' and '30-Sep-2022'
3 group by cube (productid, custid ) order by custid;
4
```

Result 1 | Messages

CUSTID	PRODUCTID	AMOUNT_FOR_ALL_ORDERS
15	134	1242
15		1242
17	120	169.56
17		169.56
27	112	810
27		810
32	145	810
32		810
34	109	432
34	116	54
34	123	201.96
34		687.96
43	128	702
43		702
45	108	86.4
45		86.4
47	101	270
47		270
48	101	270
48	110	108
48		378
49	115	1026
49		1026
	101	540
	108	86.4
	109	432
	110	108
	112	810
	115	1026

Over Query:

```
SELECT Distinct Extract( year from Order_Date) AS OrderYear, extract(month from Order_Date) AS OrderMonth,
  SUM(total_amt)
OVER(PARTITION BY Extract( year from Order_Date), extract(month from Order_Date)
    ORDER BY Extract( year from Order_Date), extract(month from Order_Date)) AS Monthly_Revenue,
  SUM(Total_amt)
OVER(PARTITION BY Extract( year from Order_Date)
    ORDER BY extract(month from Order_Date)) AS Running_Revenue_Total
FROM fall22_s004_7_order
ORDER BY Extract( year from Order_Date) , extract(month from Order_Date);
```

Statement 1

```
1  SELECT Distinct Extract( year from Order_Date) AS OrderYear, extract(month from Order_Date) AS OrderMonth,
2       SUM(total_amt)
3        OVER(PARTITION BY Extract( year from Order_Date), extract(month from Order_Date)
4            ORDER BY Extract( year from Order_Date), extract(month from Order_Date)) AS Monthly_Revenue,
5         SUM(Total_amt)
6        OVER(PARTITION BY Extract( year from Order_Date)
7            ORDER BY extract(month from Order_Date)) AS Running_Revenue_Total
8  FROM fall22_s004_7_order
9  ORDER BY Extract( year from Order_Date) , extract(month from Order_Date);
10
```

Result 1 | Messages

ORDERYEAR	ORDERMONTH	MONTHLY_REVENUE	RUNNING_REVENUE_TOTAL
1998	7	810	810
2003	9	3402	3402
2004	10	2106	2106
2008	11	1242	1242
2009	8	918	918
2010	12	1690.2	1690.2
2012	9	1375.92	1375.92
2012	12	1293.84	2669.76
2013	1	201.96	201.96
2013	7	432	633.96
2013	12	880.2	1514.16
2015	8	810	810
2015	11	322.92	1132.92
2016	4	54	54
2016	12	432	486
2018	1	54	54
2018	10	2106	2160
2018	12	43.2	2203.2
2021	3	2430	2430
2021	5	432	2862
2021	8	97.2	2959.2
2021	12	3834	6793.2
2022	1	2106	2106
2022	2	880.2	2986.2
2022	4	432	3418.2