SQL - [Major]

1. Need the full details of shipment so select Order ID, Ship ID, Shipping\_Cost, Ship\_date from the database.

**Syntax:**

Select Ord\_id, m.Ship\_id, Ship\_Date, Shipping\_cost from market\_fact\_full as m inner join shipping\_dimen as s on m.ship\_id = s.ship\_id;

1. Provide the customer name, city, state and the order ID and order quantity they ordered.

**Syntax:**

Select customer\_name, city, state, ord\_id from market\_fact\_full as m inner join cust\_dimen as c on m.cust\_id = c.cust\_id;

1. Provide the product details like order Id, shipment ID whose shipment mode is Regular air.

**Syntax:**

Select ord\_id, m.ship\_id, ship\_mode from market\_fact\_full as m inner join shipping\_dimen as s on m.ship\_id = s.ship\_id where ship\_mode = "Regular air";

1. From order\_dimen table order having order\_priority as Critical and High change it to immediate delivery and all other to normal delivery.

**Syntax:**

Select order\_number, order\_priority, case

when order\_priority ="Critical" then "immediate delivery" when order\_priority ="High" then "immediate delivery" else "normal delivery"

end as Delivery\_type from orders\_dimen;

1. Provide all the details of customers which are from West Bengal.

**Syntax:**

Select \* from cust\_dimen where state = "West Bengal";

1. Provide the order details like odr\_id, prod\_id, ship\_id, cust\_id whose discount is more than

0.05 and order\_quantity is more than 10.

**Syntax:**

SELECT \* FROM market\_fact\_full WHERE Discount > 0.05 AND order\_quantity > 10;

1. Create a table shipping\_mode\_dimen having columns with their respective data types as the following:
   1. Ship\_Mode VARCHAR(25)
   2. Vehicle\_Company VARCHAR(25)
   3. Toll\_Required BOOLEAN

**Syntax:**

Create table shipping\_mode\_dimen( ship\_mode varchar(25), vehicle\_company varchar(25), toll\_required boolean

);

1. Make 'Ship\_Mode' as the primary key in the above table.

**Syntax:**

alter table shipping\_mode\_dimen

add constraint primary key(ship\_mode);

1. Insert two rows in the table created above having the row-wise values:
2. ‘DELIVERY TRUCK', 'Ashok Leyland', false
3. 'REGULAR AIR', 'Air India', false

**Syntax:**

insert into shipping\_mode\_dimen(ship\_mode, vehicle\_company, toll\_required) values

( ' Delivery truck','ashok leyland',false), ( 'regular air', 'air india' , false);

1. Add another column named 'Vehicle\_Number' and its data type to the created table.

**Syntax:**

alter table shipping\_mode\_dimen add vehicle\_number varchar(20);

1. Update its value to 'MH-05-R1234'.

**Syntax:**

update shipping\_mode\_dimen

set vehicle\_number = 'MH-05-R1234';

1. Print the names of all customers who are either corporate or belong to Mumbai.

**Syntax:**

select customer\_name , city, customer\_segment from cust\_dimen

where city = 'Mumbai' or customer\_segment = 'corporate'

1. Find the total number of sales made.

**Syntax:**

select count(sales) as no\_of\_sales from market\_fact\_full;

1. What are the total numbers of customers from each city?

**Syntax:**

select count(customer\_name) as city\_wise\_customers, city from cust\_dimen

group by city;

1. List the customer names in alphabetical order.

**Syntax:**

select distinct customer\_name

from cust\_dimen

order by customer\_name;

1. Print the three most ordered products.

**Syntax:**

select prod\_id , sum(order\_quantity) from market\_fact\_full

group by prod\_id

order by sum(order\_quantity)desc limit 3;

1. Which month and year combination saw the most number of critical orders?

**Syntax:**

select count(ord\_id) as order\_count, month(order\_date) as order\_month , year(order\_date) as Order\_Year

from orders\_dimen

where order\_priority = 'critical' group by Order\_Year, order\_month order by order\_count desc ;

1. Find the most commonly used mode of shipment in 2011.

**Syntax:**

select ship\_mode, count(ship\_mode) as ship\_mode\_count from shipping\_dimen

where year (ship\_date) = 2011 group by ship\_mode

order by ship\_mode\_count desc;

1. Print the name of the most frequent customer.

**Syntax:**

select customer\_name, cust\_id from cust\_dimen

where cust\_id = ( select cust\_id

from market\_fact\_full group by cust\_id

order by count(cust\_id) desc limit 1

)

1. Find all low-priority orders made in the month of April. Out of them, how many were made in the first half of the month?

**Syntax:**

with low\_priority\_orders as (

select ord\_id . Order\_date . Order\_Priority from orders\_dimen

where Order\_Priority = 'low' and month(Order\_date) = 4

)

select count(Ord\_id) as Order\_Count from low\_priority\_orders

where day(Order\_date)between 1 and 15;

1. Rank the orders made by Aaron Smayling in the decreasing order of the resulting sales.

**Syntax:**

SELECT customer\_name,

ord\_id,

ROUND(sales) AS rounded\_sales,

RANK() OVER (ORDER BY sales DESC) AS sales\_rank FROM market\_fact\_full as m

INNER JOIN

cust\_dimen as c

ON m.cust\_id = c.cust\_id

WHERE customer\_name= 'Aaron Smayling';

1. For the above customer, rank the orders in the increasing order of the discounts provided. Also display the dense ranks.

**Syntax:**

SELECT ord\_id,

discount, customer\_name,

RANK() OVER (ORDER BY discount ASC) AS disc\_rank, DENSE\_RANK() OVER (ORDER BY discount ASC) AS disc\_dense\_rank

FROM market\_fact\_full as m INNER JOIN cust\_dimen as c ON m.cust\_id=c.cust\_id

WHERE customer\_name= 'Aaron Smayling';

1. Rank the orders in the increasing order of the shipping costs for all orders placed by Aaron Smayling. Also display the row number for each order.

**Syntax:**

SELECT customer\_name,

COUNT(DISTINCT ord\_id) AS order\_count,

RANK() OVER (ORDER BY COUNT(DISTINCT ord\_id) asc) AS order\_rank,

DENSE\_RANK() OVER (ORDER BY COUNT(DISTINCT ord\_id) asc) AS

order\_dense\_rank,

ROW\_NUMBER() OVER (ORDER BY COUNT(DISTINCT ord\_id) asc) AS

order\_row\_num

FROM market\_fact\_full AS m INNER JOIN

cust\_dimen AS c

ON m.cust\_id=c.cust\_id

WHERE customer\_name= 'Aaron Smayling' GROUP BY customer\_name ;