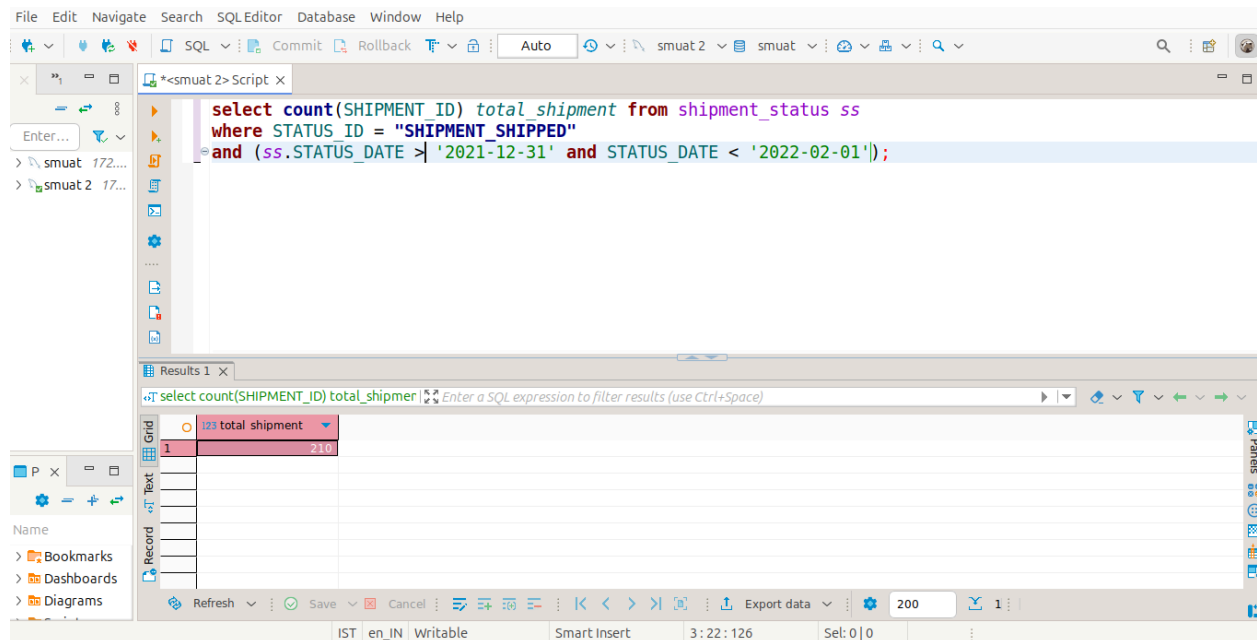


# SQL ASSIGNMENT 1

## 1. Total number of shipments in January 2022 first quarter:

Query:-

```
Select count(SHIPMENT_ID) Jan_shipment from shipment_status ss
where STATUS_ID = "SHIPMENT_SHIPPED"
and (ss.STATUS_DATE >= '2021-12-31' and ss.STATUS_DATE <=
'2022-02-01');
```



Explanation :-

The SQL query counts how many shipments were shipped in January 2022. It looks at the `shipment_status` table and checks for entries where the `STATUS_ID` is "SHIPMENT\_SHIPPED." It only counts those shipments whose `STATUS_DATE` is between December 31, 2021, and February 1, 2022. This helps to find out the total number of shipments made during January 2022. You can change the dates or add more filters if you want to get different information.

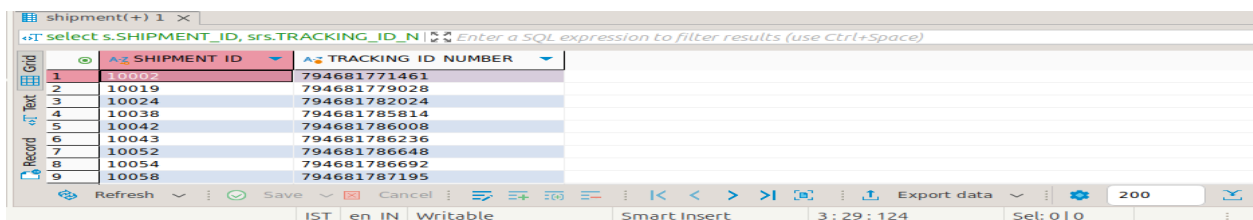
## 2. Shipment by Tracking number:

Query:-

```
select s.SHIPMENT_ID, srs.TRACKING_ID_NUMBER from
shipment s
join shipment_route_segment srs
on s.SHIPMENT_ID =srs.SHIPMENT_ID where
srs.TRACKING_ID_NUMBER is not null
```

Explanation:-

This SQL query retrieves the **SHIPMENT\_ID** and **TRACKING\_ID\_NUMBER** for shipments that have a tracking number associated with them. It does this by selecting data from two tables: **shipment** (aliased as **s**) and **shipment\_route\_segment** (aliased as **srs**). The query uses a JOIN to combine the two tables based on matching **SHIPMENT\_ID** values. The condition **srs.TRACKING\_ID\_NUMBER is not null** ensures that only the shipments that have a valid tracking number are included in the results. This helps identify which shipments can be tracked.



	SHIPMENT ID	TRACKING ID NUMBER
1	10002	794681771461
2	10019	794681779028
3	10024	794681782024
4	10038	794681785814
5	10042	794681786008
6	10043	794681786236
7	10052	794681786648
8	10054	794681786692
9	10058	794681787195

## 3. Average number of shipments per month:

Query:-

```
SELECT
-- max return latest shipment date
MAX(CREATED_DATE) Maximum_date,
-- min return oldest shipment date
MIN(CREATED_DATE) minimum_date,
COUNT(SHIPMENT_ID) / (TIMESTAMPDIFF(MONTH,
MIN(CREATED_DATE), MAX(CREATED_DATE)) + 1) AS
"avg_shipment"
```

```
FROM
    shipment s;
```

## Explanation:-

This SQL query calculates important details about shipments from a table called **shipment**. It finds the most recent shipment date and the oldest shipment date. It also counts how many shipments there are in total. Then, it calculates the number of months between the earliest and latest shipment dates and adds one to include both months. Finally, it divides the total number of shipments by the number of months to determine the average number of shipments per month. The results include the maximum date, minimum date, and the average shipments per month.

	Maximum date	minimum date	123 avg shipment
1	2024-11-05 03:57:23.072	2020-01-29 09:44:38	614.1724

## 4. Shipped units By Location:

ADDRESS1	shipped on address 1	123 Total shipment
110 Wall Street	shipped on address 1	4
10 Exchange Place	shipped on address 1	12
Park Street	shipped on address 1	180
54 Noll Street	shipped on address 1	14
Hall street pink road	Near hotel park west	57
Henderson Harbor, New York, United States	shipped on address 1	2

Query:-

```

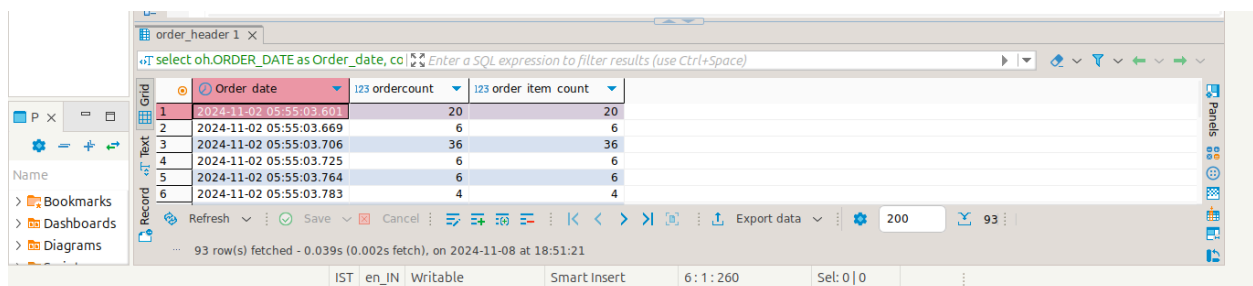
select pa.POSTAL_CODE,
CASE WHEN pa.POSTAL_CODE is NULL
THEN 'check with'
ELSE pa.ADDRESS1
END AS 'ADDRESS1',
count(S.SHIPMENT_ID)
as Total_shipment
from shipment s join postal_address pa on
s.DESTINATION_CONTACT_MECH_ID = pa.CONTACT_MECH_ID
where s.STATUS_ID in (select STATUS_ID from
shipment_status ss where ss.STATUS_ID =
'shipment_shipped')
group by pa.POSTAL_CODE

```

Explanation:-

This SQL query retrieves shipment details based on specific addresses and statuses. It joins the `shipment` and `postal_address` tables, focusing on the primary address (`ADDRESS1`) and a conditional secondary address (`ADDRESS2`). If `ADDRESS2` is null, it defaults to "shipped on address 1." The query counts the total shipments (`SHIPMENT_ID`) for each address combination, filtering by shipments with the status 'shipment\_shipped.' The results are grouped by `ADDRESS1`, showing the total shipments for each primary address.

## 5. Last week's imported orders & items count



	Order date	123 ordercount	123 order item count
1	2024-11-02 05:55:03.601	20	20
2	2024-11-02 05:55:03.669	6	6
3	2024-11-02 05:55:03.706	36	36
4	2024-11-02 05:55:03.725	6	6
5	2024-11-02 05:55:03.764	6	6
6	2024-11-02 05:55:03.783	4	4

Query:-

```
select oh.ORDER_DATE as Order_date, count(oh.ORDER_ID)
as ordercount,
count(oi.ORDER_ITEM_SEQ_ID) as order_item_count from
order_header oh
join order_item oi on oh.ORDER_ID = oi.ORDER_ID
where oh.ORDER_DATE >= Now() - INTERVAL 7 day
group by oh.ORDER_DATE
```

Explanation:-

This SQL query counts the total number of orders and order items created in the last 7 days. It joins the `order_header` and `order_item` tables using `ORDER_ID`, filters the data to include orders from the past week, and counts the orders and items for each day. The results are grouped by `ORDER_DATE`, providing a daily summary of the number of orders and items created during the past week.

## 6. Total \$ value of shipments shipped from facility 904/906 to first quarter:

Query:-

Explanation:-

## 7. Payment captured but not shipped order items:-

SHIPMENT ID	STATUS ID	STATUS	ORDER ID
11968	SHIPMENT_INPUT	PAYMENT_SETTLED	SGSM10000
16886	SHIPMENT_CANCEL	PAYMENT_SETTLED	SGSM10001
11883	SHIPMENT_INPUT	PAYMENT_SETTLED	SGSM10003
12356	SHIPMENT_INPUT	PAYMENT_SETTLED	SGSM10003
11969	SHIPMENT_INPUT	PAYMENT_SETTLED	SGSM10005
16904	SHIPMENT_CANCEL	PAYMENT_SETTLED	SGSM10007

200 row(s) fetched - 0.016s (0.001s fetch), on 2024-11-08 at 19:03:04

Query:-

```
select s.SHIPMENT_ID, s.STATUS_ID, opp.STATUS_ID,
       opp.ORDER_ID
from shipment s join order_payment_preference opp
on s.PRIMARY_ORDER_ID =opp.ORDER_ID
where opp.STATUS_ID = 'payment_settled'
and s.STATUS_ID != 'shipment_shipped'
```

Explanation:-

This SQL query retrieves shipment details by joining the `shipment` and `order_payment_preference` tables using the `PRIMARY_ORDER_ID` and `ORDER_ID` fields. It filters the results to show shipments where the associated order has a payment status of 'payment\_settled' and the shipment's status is not 'shipment\_shipped'. The query returns the `SHIPMENT_ID`, `STATUS_ID` from both the `shipment` and `order_payment_preference` tables, along with the `ORDER_ID`.

## 8. Orders that have more: than one item in a single ship group

Query:-

```
select oi.ORDER_ID, oi.SHIP_GROUP_SEQ_ID, count(oi.ORDER_ITEM_SEQ_ID) as
       total_item_in_ship_group
from order_item oi where oi.ORDER_ITEM_SEQ_ID is not null
group by oi.ORDER_ID, oi.ORDER_ITEM_GROUP_SEQ_ID
having total_item_in_ship_group > 1 ;
```

Explanation:-

This query finds orders with multiple items in each shipping group by counting items in each group and showing only those with more than one item.

	ORDER ID	SHIP GROUP SEQ ID	123 total item in ship group
1	10001	[NULL]	2
2	100012	00001	2
3	100082	00001	2
4	100109	00001	2
5	100113	00001	2
6	100114	00001	2
7	100139	00001	2

## 9. Find orders where multiple items are grouped and shipped together in a single shipment:

Query:-

```
select oi.ORDER_ITEM_SEQ_ID , oisg.SHIP_GROUP_SEQ_ID,
count(oi.ORDER_ITEM_SEQ_ID) as NO_OF_ITEMS
from order_item oi join order_item_ship_group oisg on oi.ORDER_ID =
oisg.ORDER_ID
group by oi.ORDER_ID , oisg.SHIP_GROUP_SEQ_ID
having NO_OF_ITEMS > 1 order by oi.ORDER_ID ;
```

Explanation:-

This query identifies orders with more than one item in each shipping group. It joins `order_item` (oi) with `order_item_ship_group` (oisg) based on `ORDER_ID`, groups the results by `ORDER_ID` and `SHIP_GROUP_SEQ_ID`, and counts the items per shipping group. Only groups with more than one item are shown, sorted by `ORDER_ID`.

	ORDER ITEM SEQ ID	SHIP GROUP SEQ ID	123 NO OF ITEMS
1	00101	00001	2
2	00101	00001	2
3	00101	00001	2
4	00101	00001	2
5	00101	00001	2
6	00101	00001	2
7	00101	00001	2

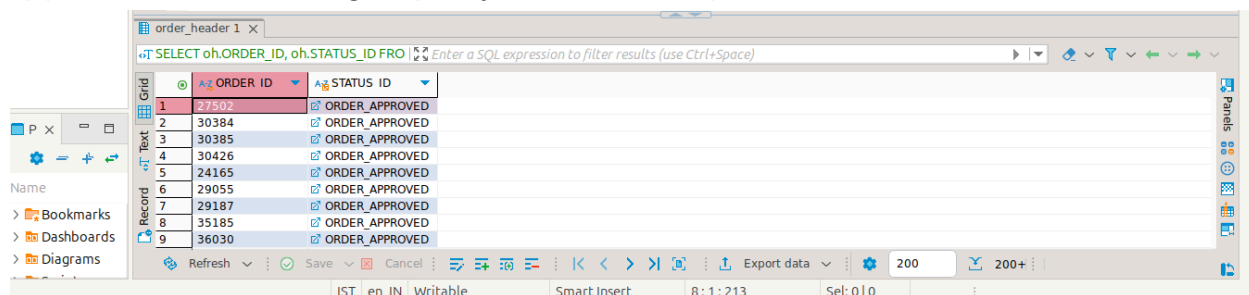
## 10. Orders brokered but not shipped:

Query:-

```
SELECT oh.ORDER_ID, oh.STATUS_ID
FROM order_header oh
JOIN shipment s ON oh.ORDER_ID = s.PRIMARY_ORDER_ID
WHERE oh.STATUS_ID = 'order_approved' AND s.STATUS_ID IS NOT null
group by oh.ORDER_ID , s.STATUS_ID ;
```

Explanation:-

This query retrieves approved orders and their statuses for orders with shipments that have a non-null status. It joins `order_header` with `shipment`, filters for approved orders, and groups by order and shipment status.



The screenshot shows a database query tool interface. The query editor at the top contains the SQL query for 'Orders brokered but not shipped'. Below the editor, a grid displays the results of the query. The grid has two columns: 'ORDER\_ID' and 'STATUS\_ID'. The results show 9 rows of data, all with 'ORDER\_APPROVED' status. The 'ORDER\_ID' values are 22502, 30384, 30385, 30426, 24165, 29055, 29187, 35185, and 36030. The interface includes a sidebar with 'Name', 'Bookmarks', 'Dashboards', and 'Diagrams' sections. The bottom status bar shows 'IST en\_IN Writable', 'Smart Insert', '8:1:213', and 'Sel: 0 | 0'.

ORDER_ID	STATUS_ID
22502	ORDER_APPROVED
30384	ORDER_APPROVED
30385	ORDER_APPROVED
30426	ORDER_APPROVED
24165	ORDER_APPROVED
29055	ORDER_APPROVED
29187	ORDER_APPROVED
35185	ORDER_APPROVED
36030	ORDER_APPROVED

## 11. Orders completed hourly:

Query:-

```
SELECT
  COUNT(order_ID) AS total_completed_orders,
  DATE(STATUS_DATETIME) AS order_date,
  HOUR(STATUS_DATETIME) AS hour_of_day
FROM order_status os
WHERE os.STATUS_ID = 'order_completed'
GROUP BY order_date, hour_of_day;
```

Explanation:-

This query counts the number of completed orders (`STATUS_ID = 'order_completed'`) for each hour on each specific date. It groups the results by



both the date and the hour extracted from the **STATUS\_DATETIME** field, providing the total number of completed orders for every hour of every day. This helps analyze the order completion trends by hour and day.

The screenshot shows a database query results window with the following data:

order date	hour of day	total completed orders
2020-01-29	10	123
2021-08-18	6	
2021-08-18	7	
2020-01-29	11	
2021-08-19	0	
2021-08-19	5	
2021-08-19	7	
2021-08-19	19	
2021-08-22	0	

## 12. Maximum units fulfilled by location:

Query:-

```
select pa.POSTAL_CODE, pa.ADDRESS1,
COUNT(S.SHIPMENT_ID)
from shipment s
join postal_address pa
on s.DESTINATION_CONTACT_MECH_ID = pa.CONTACT_MECH_ID
where S.STATUS_ID = 'SHIPMENT_SHIPPED'
group by pa.POSTAL_CODE, pa.ADDRESS1 order by s.SHIPMENT_ID desc;
```

Explanation:-

This query retrieves the postal code and address of shipments that have been shipped (**STATUS\_ID = 'SHIPMENT\_SHIPPED'**). It joins the **shipment** table (**s**) with the **postal\_address** table (**pa**) on the **DESTINATION\_CONTACT\_MECH\_ID** and **CONTACT\_MECH\_ID** fields. The query counts the number of shipments (**SHIPMENT\_ID**) for each postal code and address, groups the results by **POSTAL\_CODE** and **ADDRESS1**, and orders the results by **SHIPMENT\_ID** in descending order. This helps analyze shipment distribution by postal code and address, with a focus on shipped orders.

	POSTAL_CODE	ADDRESS1	COUNT(S.SHIPMENT ID)
1	10005	110 Wall Street	4
2	84111	10 Exchange Place	12
3	45839	Park Street	18
4	11206	54 Noll Street	14
5	43001	Hall street pink road	45
6	13650	Henderson Harbor, New Yo	2
7	07410	12-20 River Road	1
8	10168	122 East 42nd Street	1
9	02142	1 Main Street	1

### 13. facility wise Revenue for (SM Store):

Update Query:-

```
select oh.ORDER_ID, sum(oh.GRAND_TOTAL) as Revenue,
f.FACILITY_ID,
f.FACILITY_NAME
from order_header oh join
order_item_ship_group oisg on oh.ORDER_ID = oisg.ORDER_ID
join facility f on f.FACILITY_ID = oisg.FACILITY_ID
group by oh.ORDER_ID , f.FACILITY_ID , f.FACILITY_NAME
order by Revenue desc;
```

Result:-

	ORDER_ID	Revenue	FACILITY_ID	FACILITY_NAME
169	41543	2,679.62	_NA_	Brokering Queue
170	37214	2,661.62	904	904 - 904 Retail Warehouse
171	37214	2,661.62	38	38 - Store 38
172	37214	2,661.62	140	140 - Store 140
173	37214	2,661.62	902	902 - 902 Retail Warehouse
174	42735	2,639.79	_NA_	Brokering Queue
175	42735	2,639.79	972	972 - 972 Retail Warehouse (
176	42735	2,639.79	254	Store 254
177	68556	2,639.7	510	510 - Riverhead Tanger Outle
178	36625	2,638.2	5	5 - Store 5

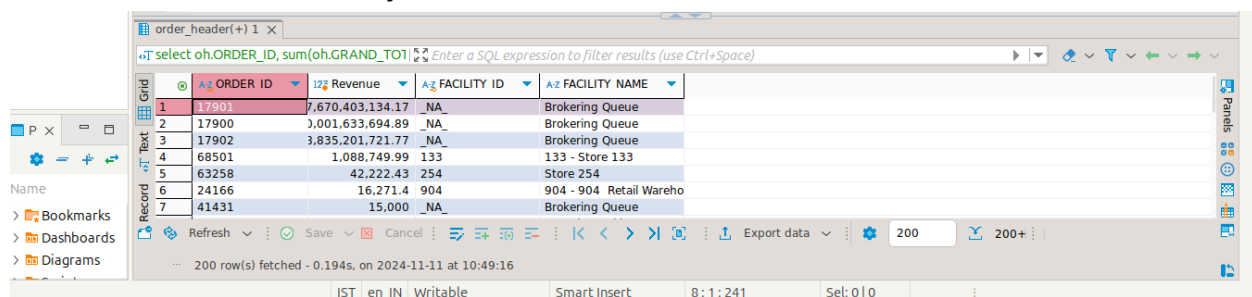
Query:-

```
select oh.ORDER_ID, sum(oh.GRAND_TOTAL) as Revenue,
f.FACILITY_ID,
f.FACILITY_NAME
from order_header oh join
facility f on oh.ORIGIN_FACILITY_ID = f.FACILITY_ID
```

```
group by oh.ORDER_ID , f.FACILITY_ID , f.FACILITY_NAME
order by Revenue desc;
```

Explanation:-

This query calculates the total revenue for each order by summing the **GRAND\_TOTAL** from the **order\_header** table (oh). It joins the **order\_header** table with the **facility** table (f) based on the **ORIGIN\_FACILITY\_ID** and **FACILITY\_ID**. The query groups the results by **ORDER\_ID**, **FACILITY\_ID**, and **FACILITY\_NAME**, and orders the results by total revenue (**Revenue**) in descending order. This helps analyze the revenue generated from each order and the associated facility.



The screenshot shows a SQL query editor with a query window and a results grid. The query is:

```
select oh.ORDER_ID, sum(oh.GRAND_TOTAL) as Revenue, f.FACILITY_ID, f.FACILITY_NAME
from order_header oh
join facility f on oh.ORIGIN_FACILITY_ID = f.FACILITY_ID
group by oh.ORDER_ID, f.FACILITY_ID, f.FACILITY_NAME
order by Revenue desc;
```

The results grid displays the following data:

ORDER_ID	Revenue	FACILITY_ID	FACILITY_NAME
17901	7,670,403,134.17	_NA_	Brokering Queue
17900	3,001,633,694.89	_NA_	Brokering Queue
17902	3,835,201,721.77	_NA_	Brokering Queue
68501	1,088,749.99	133	133 - Store 133
63258	42,222.43	254	Store 254
24166	16,271.4	904	904 - 904 Retail Wareho
41431	15,000	_NA_	Brokering Queue

## 14. Shipping Refund in the last month:

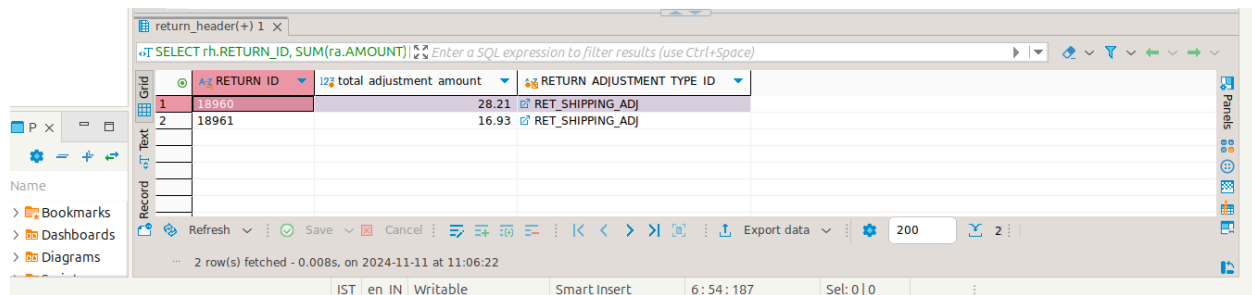
Query:-

```
SELECT
    rh.RETURN_ID,
    SUM(ra.AMOUNT) AS total_adjustment_amount,
    ra.RETURN_ADJUSTMENT_TYPE_ID
FROM return_adjustment ra
JOIN return_header rh ON rh.RETURN_ID = ra.RETURN_ID
WHERE ra.RETURN_ADJUSTMENT_TYPE_ID = 'ret_shipping_adj'
AND rh.ENTRY_DATE >= NOW() - INTERVAL 1 MONTH
GROUP BY rh.RETURN_ID, ra.RETURN_ADJUSTMENT_TYPE_ID;
```

Explanation:-

This query calculates the total adjustment amount (**SUM( ra .AMOUNT )**) for returns with the adjustment type '**ret\_shipping\_adj**' from the **return\_adjustment** table. It joins the **return\_adjustment** table with the

`return_header` table on `RETURN_ID`. The query filters for returns that were created in the last month (`rh.ENTRY_DATE >= NOW() - INTERVAL 1 MONTH`) and groups the results by `RETURN_ID` and `RETURN_ADJUSTMENT_TYPE_ID`. This helps analyze the total shipping adjustment amounts for each return within the last month.



RETURN_ID	total adjustment amount	RETURN_ADJUSTMENT_TYPE_ID
18960	28.21	RET_SHIPPING_ADJ
18961	16.93	RET_SHIPPING_ADJ

## 15. Shipping Revenue last month:

Query:-

```
SELECT
    SUM(oa.AMOUNT) AS total_shipping_revenue
FROM order_adjustment oa
JOIN order_header oh ON oh.ORDER_ID = oa.ORDER_ID
WHERE oa.ORDER_ADJUSTMENT_TYPE_ID = 'shipping_charge' or
      oa.ORDER_ADJUSTMENT_TYPE_ID = 'sales_tax'
AND oh.ENTRY_DATE >= CURDATE() - INTERVAL 1 MONTH;
```

Explanation:-

This query calculates the total revenue from `shipping_charge` and `sales_tax` adjustments in the last month. It sums the `AMOUNT` from the `order_adjustment` table, considering only the adjustments of type `'shipping_charge'` or `'sales_tax'`. The query joins the `order_adjustment` table with the `order_header` table on `ORDER_ID` and filters the results to include only those records where the `ENTRY_DATE` is within the last month. The result is a total of the shipping and sales tax adjustments made in the last month.

The screenshot shows a database interface with a query results window. The query is: `SELECT SUM(oo.AMOUNT) AS total_shipping`. The results grid shows one row with the value 299,945.97. The interface includes a sidebar with 'Bookmarks', 'Dashboards', and 'Diagrams'. The bottom status bar indicates '1 row(s) fetched - 1s, on 2024-11-11 at 11:30:28'.

Grid	123 total shipping revenue
1	299,945.97

## 16. Send sale orders shipped from the warehouse:

Query:-

```

SELECT
    oh.ORDER_ID,
    oh.ORDER_TYPE_ID,
    s.SHIPMENT_ID,
    s.STATUS_ID AS SHIPMENT_STATUS,
    f.FACILITY_ID,
    f.FACILITY_NAME
FROM
    order_header oh
JOIN
    shipment s ON oh.ORDER_ID = s.PRIMARY_ORDER_ID
JOIN
    facility f ON s.ORIGIN_FACILITY_ID = f.FACILITY_ID
WHERE
    oh.ORDER_TYPE_ID = 'sales_order'
    AND f.FACILITY_TYPE_ID = 'warehouse'
    AND s.STATUS_ID = 'SHIPMENT_SHIPPED';
  
```

Explanation:-

This SQL query retrieves details of **sales orders** that have been **shipped from a warehouse**. It selects the **order ID**, **order type**, **shipment ID**, **shipment status**, and **facility details** (ID and name). The query joins the **order\_header** table (which contains order details) with the **shipment** table (to link shipments to the orders) using the **PRIMARY\_ORDER\_ID**, and it also joins the **facility** table (to get warehouse details) using the **ORIGIN\_FACILITY\_ID**. The query filters for orders

of type 'sales\_order', ensures the warehouse facility type (**FACILITY\_TYPE\_ID = 'warehouse'**), and selects only shipments with a status of '**SHIPMENT\_SHIPPED**'. This results in a list of sales orders that have been shipped from a warehouse.

ORDER_ID	ORDER_TYPE_ID	SHIPMENT_ID	SHIPMENT_STATUS	FACILITY_ID	FACILITY_NAME
18984	SALES_ORDER	31710	SHIPMENT_SHIPPED	802	802 - 802 Retail Warehouse
18911	SALES_ORDER	17798	SHIPMENT_SHIPPED	902	902 - 902 Retail Warehouse
18931	SALES_ORDER	17850	SHIPMENT_SHIPPED	902	902 - 902 Retail Warehouse
18931	SALES_ORDER	17851	SHIPMENT_SHIPPED	902	902 - 902 Retail Warehouse
18931	SALES_ORDER	17852	SHIPMENT_SHIPPED	902	902 - 902 Retail Warehouse
18930	SALES_ORDER	17855	SHIPMENT_SHIPPED	902	902 - 902 Retail Warehouse
18944	SALES_ORDER	17862	SHIPMENT_SHIPPED	902	902 - 902 Retail Warehouse

## 17. BOPIS orders Revenue in the last year:

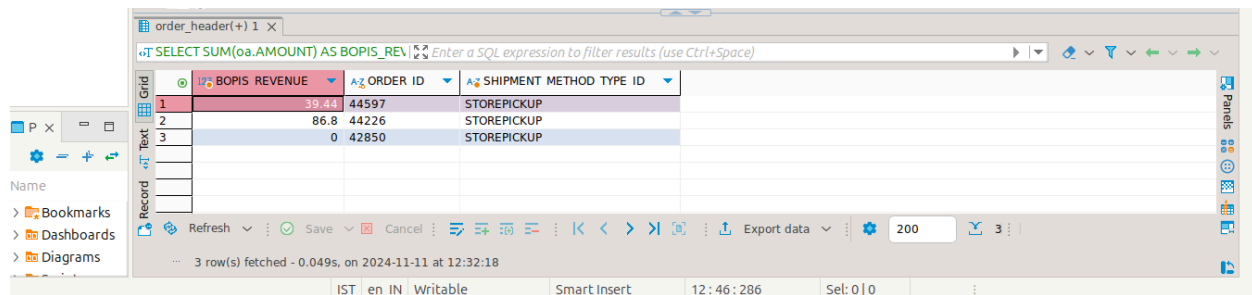
Query:-

```
SELECT
    SUM(oa.AMOUNT) AS BOPIS_REVENUE,
    oh.ORDER_ID,
    s.SHIPMENT_METHOD_TYPE_ID
FROM
    order_header oh
JOIN
    order_adjustment oa ON oh.ORDER_ID = oa.ORDER_ID
JOIN
    shipment s ON oh.ORDER_ID = s.PRIMARY_ORDER_ID
WHERE
    s.SHIPMENT_METHOD_TYPE_ID = 'STOREPICKUP'
    AND s.CREATED_DATE >= NOW() - INTERVAL 1 YEAR
GROUP BY
    oh.ORDER_ID, s.SHIPMENT_METHOD_TYPE_ID;
```

Explanation:-

This SQL query calculates the total revenue from **BOPIS (Buy Online, Pickup In-Store)** orders that use the **STOREPICKUP** shipment method within the last year. It joins three tables: **order\_header**, **order\_adjustment**, and **shipment**, using **ORDER\_ID** to link the order details, adjustments, and shipment information. The

query filters the results to include only orders where the shipment method is **STOREPICKUP** and the **CREATED\_DATE** of the shipment is within the past year. It then groups the data by **ORDER\_ID** and **SHIPMENT\_METHOD\_TYPE\_ID** to calculate the total revenue for each order based on the **AMOUNT** from the **order\_adjustment** table. The result shows the total revenue per order and its associated shipment method.



The screenshot shows a database query tool interface. The SQL query entered is: `SELECT SUM(oa.AMOUNT) AS BOPIS_REV, o.ORDER_ID, o.SHIPMENT_METHOD_TYPE_ID FROM order_adjustment oa JOIN order o ON oa.ORDER_ID = o.ORDER_ID WHERE o.SHIPMENT_METHOD_TYPE_ID = 'STOREPICKUP' AND o.CREATED_DATE >= DATEADD(YEAR, -1, GETDATE())`. The results are displayed in a grid with 3 rows and 3 columns: BOPIS REVENUE, ORDER ID, and SHIPMENT METHOD TYPE ID. The data shows three orders with their respective revenues and shipment methods.

	BOPIS REVENUE	ORDER ID	SHIPMENT METHOD TYPE ID
1	39.44	44597	STOREPICKUP
2	86.8	44226	STOREPICKUP
3	0	42850	STOREPICKUP

3 row(s) fetched - 0.049s, on 2024-11-11 at 12:32:18