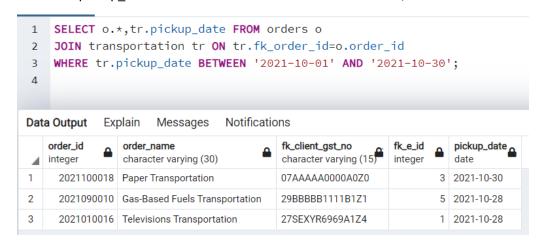
QUERIES

Query 1: List the Orders placed in a month

SELECT o.*,tr.pickup_date FROM orders o

JOIN transportation tr ON tr.fk_order_id=o.order_id

WHERE tr.pickup_date BETWEEN '2021-10-01' AND '2021-10-30';



Query 2: Get client details where transaction amount is greater than 20000.

SELECT DISTINCT ON (cl.client_gst_no)

client_gst_no,cl.client_name,o.order_id,tr.t_id,tr.t_amount FROM client cl

JOIN orders o ON o.fk_client_gst_no=cl.client_gst_no

JOIN transactions tr ON tr.fk_order_id=o.order_id

WHERE tr.t amount>20000;

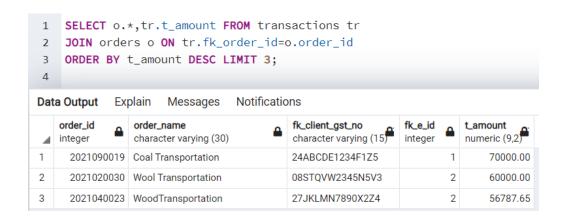
•••	in E circ_airio aire E										
1	SELECT DISTINCT ON (cl.client_gst_no) client_gst_no,cl.client_name,										
2	o.order_id,tr.t_id,tr.t_amount FROM client cl										
3	JOIN orders o ON o.fk_client_gst_no=cl.client_gst_no										
4	JOIN transactions tr ON tr.fk_order_id=o.order_id										
5	WHERE tr.t_amount>20000;										
6											
Dat	a Output Explain	Messages Notifica	tions								
4	client_gst_no character varying (15)	client_name character varying (30)	order_id integer	t_id integer ♣	t_amount numeric (9,2)						
1	03BBBBB1111B1Z1	Arijit Singh	2021030017	16	35000.09						
2	07AAAAA0000A0Z0	Zakir Khan	2021010001	1	40000.12						
3	08STQVW2345N5V3	Suraj	2021020030	26	60000.00						
4	24ABCDE1234F1Z5	Dhvani	2021030008	11	22000.78						
5	24FGHIJ3456L609	Ravi	2021070024	29	40000.00						
6	27JKLMN7890X2Z4	Ishita	2021040023	24	56787.65						
7	29BBBBB1111B1Z1	Jeff Bezos	2021050015	5	53000.41						
8	29GTYKL1234K1D5	Rohit	2021020026	30	25500.50						

Query 3: Get order details of top three transaction amount.

```
SELECT o.*,tr.t_amount FROM transactions tr

JOIN orders o ON tr.fk_order_id=o.order_id

ORDER BY t_amount DESC LIMIT 3;
```



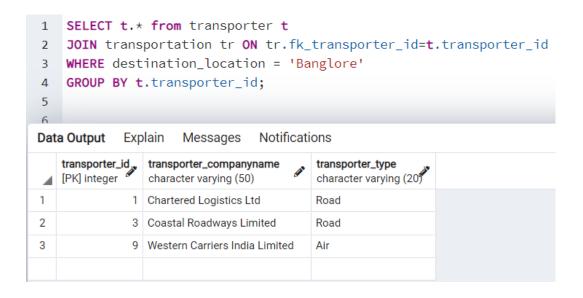
Query 4: List of transporters that have delivered orders to Banglore.

SELECT t.* from transporter t

JOIN transportation tr ON tr.fk_transporter_id=t.transporter_id

WHERE destination_location = 'Banglore'

GROUP BY t.transporter_id;



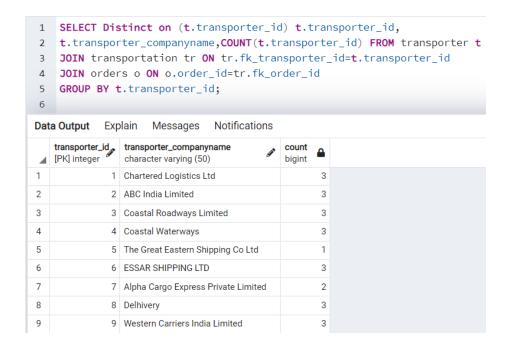
Query 5: No. of orders completed by each transporter

```
SELECT Distinct on (t.transporter_id) t.transporter_id,
t.transporter_companyname,COUNT(t.transporter_id) FROM transporter t

JOIN transportation tr ON tr.fk_transporter_id=t.transporter_id

JOIN orders o ON o.order_id=tr.fk_order_id

GROUP BY t.transporter_id;
```



Query 6: Employee of the Year

SELECT * FROM (

```
SELECT DISTINCT ON (e.e_id) e.e_id ,e.e_name,SUM(tr.t_amount) as total FROM transactions tr
```

JOIN orders o ON tr.fk_order_id=o.order_id

JOIN employee e ON e.e_id=o.fk_e_id

WHERE EXTRACT(YEAR FROM tr.t_date)=2021

GROUP BY e.e_id) emp

ORDER BY total DESC LIMIT 1;



Query 7: Search ppl whose payment is pending for more than 20 days and add 10% penalty charges to their amount.

```
SELECT tr.t_id,tr.t_amount,tr.t_date,o.order_id,cl.client_gst_no,cl.client_name,

(CURRENT_DATE::date - tr.t_date::date) AS days,((tr.t_amount*0.10)+tr.t_amount) AS updated_t_amount

FROM transactions tr

JOIN orders o ON o.order_id=tr.fk_order_id

JOIN client cl ON cl.client_gst_no=o.fk_client_gst_no

WHERE tr.t_status='pending' AND (CURRENT_DATE::date - tr.t_date::date)>20

ORDER BY tr.t_id;
```



Query 8: Most valuable client

```
SELECT PISTINCT ON (cl.client_gst_no) cl.client_gst_no ,cl.client_name,SUM(tr.t_amount) as total FROM transactions tr

JOIN orders o ON tr.fk_order_id=o.order_id

JOIN client cl ON cl.client_gst_no = o.fk_client_gst_no

GROUP BY cl.client_gst_no) abc

ORDER BY total DESC LIMIT 1;
```



Query 9:

Pilots and the orders delivered by them

```
SELECT pilot_id,pilot_name,tran.fk_order_id,o.order_name FROM pilot pi
JOIN airtransport air ON air.plane_id=pi.fk_planeid
JOIN transporter tr ON tr.transporter_id=air.fk_transporterid
JOIN transportation tran ON tran.fk_transporter_id=tr.transporter_id
JOIN orders o ON tran.fk_order_id=o.order_id;
```

```
1 SELECT pilot_id,pilot_name,tran.fk_order_id,o.order_name FROM pilot pi
   JOIN airtransport air ON air.plane_id=pi.fk_planeid
   JOIN transporter tr ON tr.transporter_id=air.fk_transporterid
3
   JOIN transportation tran ON tran.fk_transporter_id=tr.transporter_id
    JOIN orders o ON tran.fk_order_id=o.order_id;
6
7
Data Output Explain
                      Messages
                                  Notifications
                                 fk_order_id _
   pilot id
              pilot_name
                                              order_name
              character varying (30)
                                              character varying (30)
   integer
                                 integer
1
         301 Jack
                                   2021020026 CNG Transportation
2
         301 Jack
                                   2021010007 Animal Transportation
3
         301 Jack
                                   2021100018 Paper Transportation
4
         302 Alex
                                   2021040023 WoodTransportation
5
         302 Alex
                                   2021070020 Meat Transportation
6
         303 Walt
                                   2021010022 Bike Transportation
7
         303 Walt
                                   2021030017 Sugar Transportation
8
                                   2021070012 Wine Transportation
         303 Walt
```

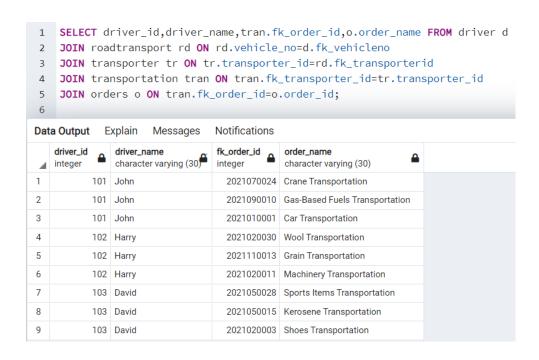
Drivers and the orders delivered by them

SELECT driver_id,driver_name,tran.fk_order_id FROm driver d

JOIN roadtransport rd ON rd.vehicle_no=d.fk_vehicleno

JOIN transporter tr ON tr.transporter_id=rd.fk_transporterid

JOIN transportation tran ON tran.fk_transporter_id=tr.transporter_id;



• Captain and the orders delivered by them

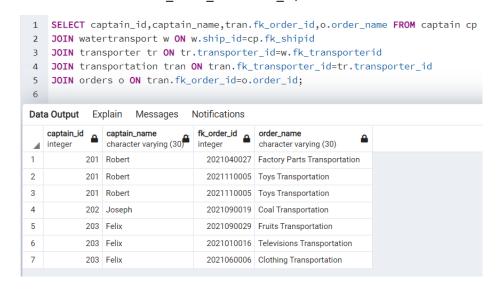
SELECT captain_id,captain_name,tran.fk_order_id,o.order_name FROM captain cp

JOIN watertransport w ON w.ship_id=cp.fk_shipid

JOIN transporter tr ON tr.transporter_id=w.fk_transporterid

JOIN transportation tran ON tran.fk_transporter_id=tr.transporter_id

JOIN orders o ON tran.fk_order_id=o.order_id;



Query 10: Time taken for transportation of each order

SELECT o.order_id,o.order_name,o.fk_client_gst_no,tr.pickup_date,tr.destination_date, (tr.destination_date::date - tr.pickup_date::date) as Duration_of_transport FROM transportation tr

JOIN orders o ON tr.fk_order_id=o.order_id;

3		oortation tr s o ON tr.fk_order_id=o	.order id :			
₋ Data	Output Exp	ain Messages Notification	ns			
4	order_id anteger	order_name character varying (30)	fk_client_gst_no character varying (15)	pickup_date a	destination_date_	duration_of_transport_integer
1	2021010001	Car Transportation	07AAAAA0000A0Z0	2021-01-26	2021-02-15	2
2	2021020003	Shoes Transportation	27SEXYR6969A1Z4	2021-02-10	2021-02-15	!
3	2021020011	Machinery Transportation	24ABCDE1234F1Z5	2021-02-14	2021-02-28	14
4	2021050015	Kerosene Transportation	29BBBBB1111B1Z1	2021-05-27	2021-06-05	
5	2021070020	Meat Transportation	27SEXYR6969A1Z4	2021-08-05	2021-08-10	
6	2021100018	Paper Transportation	07AAAAA0000A0Z0	2021-10-30	2021-11-04	
7	2021110005	Toys Transportation	03BBBBB1111B1Z1	2021-11-22	2021-12-06	1
8	2021070012	Wine Transportation	03BBBBB1111B1Z1	2021-07-15	2021-07-25	1
9	2021090019	Coal Transportation	24ABCDE1234F1Z5	2021-09-23	2021-10-10	1
10	2021060006	Clothing Transportation	29BBBBB1111B1Z1	2021-07-05	2021-07-12	
11	2021090010	Gas-Based Fuels Transportation	29BBBBB1111B1Z1	2021-10-28	2021-11-06	
12	2021110013	Grain Transportation	07AAAAA0000A0Z0	2021-11-20	2021-11-29	
13	2021030017	Sugar Transportation	03BBBBB1111B1Z1	2021-03-20	2021-04-10	2
14	2021010016	Televisions Transportation	27SEXYR6969A1Z4	2021-10-28	2021-11-12	1
15	2021110005	Toys Transportation	03BBBBB1111B1Z1	2021-11-27	2021-12-04	

Query 11: Client Order Details

```
CREATE OR REPLACE FUNCTION view_details (gst_no varchar)
RETURNS TABLE(
       client_name VARCHAR,
       client_mobileno VARCHAR,
       client_emailid VARCHAR,
       order_id INTEGER,
       order_name VARCHAR
)
LANGUAGE plpgsql
AS $$
BEGIN
       RETURN QUERY
              SELECT
                      client.client\_name, client.client\_mobileno, client.client\_emailid, order
                      s.order_id,orders.order_name
              FROM
```

orders

JOIN

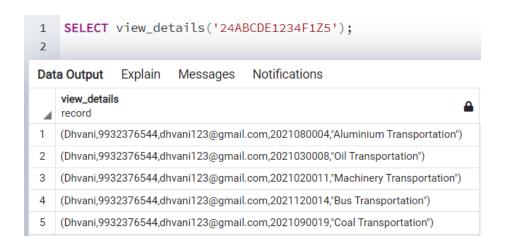
client ON client.client_gst_no=orders.fk_client_gst_no

WHERE

client.client_gst_no ILIKE gst_no;

END;\$\$

SELECT view_details('24ABCDE1234F1Z5');



Query 12: Which mode of transportation is being used most?

```
CREATE OR REPLACE FUNCTION mode_of_transport ()
RETURNS VARCHAR
language plpgsql
as $$
DECLARE
 transport VARCHAR;
 air integer;
 water integer;
 road integer;
BEGIN
       SELECT COUNT(tran.trans_id) INTO air FROM airtransport ar
       JOIN transporter tr ON tr.transporter_id=ar.fk_transporterid
       JOIN transportation tran ON tran.fk_transporter_id=tr.transporter_id;
       SELECT COUNT(tran.trans_id) INTO road FROM roadtransport rd
       JOIN transporter tr ON tr.transporter_id=rd.fk_transporterid
       JOIN transportation tran ON tran.fk_transporter_id=tr.transporter_id;
       SELECT COUNT(tran.trans_id) INTO water FROM watertransport wt
       JOIN transporter tr ON tr.transporter_id=wt.fk_transporterid
       JOIN transportation tran ON tran.fk_transporter_id=tr.transporter_id;
        IF (air > water ) AND (air > road) THEN
               transport = 'Air Transport was Used the most';
        ELSIF (water = air) AND (water = road) THEN
               transport = 'All Modes of Tansport were used equally';
        ELSIF (air = road) OR (air = water) THEN
               transport = 'Two Modes of Transport were Used the most';
        ELSIF (road > air) AND (road > water) THEN
               transport = 'Road Transport was Used the most';
```

```
ELSIF (road = air) OR (road = water) THEN

transport = 'Two Modes of Transport were Used the most';

ELSIF (water > air) AND (water > road) THEN

transport = 'Water Transport was Used the most';

END IF;

RETURN transport;
end;$$

SELECT mode_of_transport()

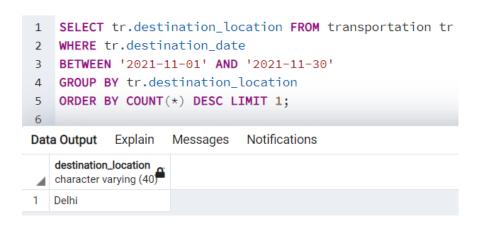
Data Output Explain Messages Notifications

mode_of_transport
character varying
```

Query 13: Between the given date which region has max receiver

Water Transport was Used the most

```
SELECT tr.destination_location FROM transportation tr
WHERE tr.destination_date
BETWEEN '2021-11-01' AND '2021-11-30'
GROUP BY tr.destination_location
ORDER BY COUNT(*) DESC LIMIT 1;
```

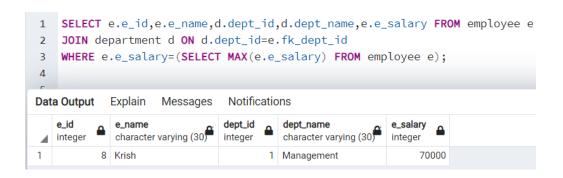


Query 14: List the employee having highest salary

SELECT e.e_id,e.e_name,d.dept_id,d.dept_name,e.e_salary FROM employee e

JOIN department d ON d.dept_id=e.fk_dept_id

WHERE e.e_salary=(SELECT MAX(e.e_salary) FROM employee e);



Query 15: Most Expensive Order

SELECT o.*,tr.t_amount FROM client cl

JOIN orders o ON o.fk_client_gst_no=cl.client_gst_no

JOIN transactions tr ON tr.fk_order_id=o.order_id

WHERE tr.t_amount=(SELECT MAX(tr.t_amount) FROM transactions tr);



Query 16: List Male Employees working for the company for more than 10 years.

SELECT e.* FROM employee e

WHERE (CURRENT_DATE::date - e.e_joindate::date)>3650 AND e.e_gender LIKE 'Male';



Query 17: List of International Clients.

 ${\tt SELECT\ client_gst_no,client_name,client_country\ FROM\ client}$

WHERE client_country<>'India';



Query 18: Clients and orders details of all the failed transactions.

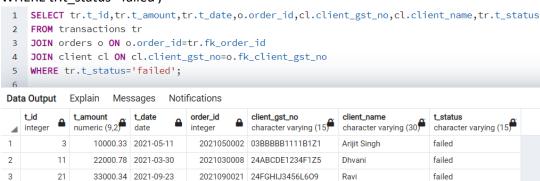
SELECT tr.t_id,tr.t_amount,tr.t_date,o.order_id,cl.client_gst_no,cl.client_name,tr.t_status

FROM transactions tr

JOIN orders o ON o.order_id=tr.fk_order_id

JOIN client cl ON cl.client_gst_no=o.fk_client_gst_no

WHERE tr.t_status='failed';



Query 19: All the available vehicles with Loading Capacity more than 25.

SELECT * FROM

(SELECT ar.plane_id AS ID,(ar.airplane_name) AS Name,(ar.p_loading_capacity) AS loading_capacity FROM airtransport ar

UNION

SELECT rd.vehicle_no, rd.v_name, rd.v_loading_capacity FROM roadtransport rd

UNION

SELECT wt.ship_id,s_name,wt.s_loading_capacity FROM watertransport wt) lc WHERE loading_capacity>25;

```
1 SELECT * FROM
   (SELECT ar.plane_id AS ID, (ar.airplane_name) AS Name,
3
   (ar.p_loading_capacity) AS loading_capacity FROM airtransport ar
4 UNION
5 SELECT rd.vehicle_no, rd.v_name, rd.v_loading_capacity FROM roadtransport rd
6 UNION
   SELECT wt.ship_id,s_name,wt.s_loading_capacity FROM watertransport wt) lc
  WHERE loading_capacity>25;
8
9
Data Output Explain Messages Notifications
                              loading_capacity_
             name
   integer A
            character varying (30)
                              integer
1
        2781 AIRBUS A300 B4F
                                         43
2
                                         29
     2314563 Algoma Mariner
3
     4515731 Akebono Maru
                                          29
4
        9865 BOEING MD 11F
                                         85
5
     3578014 MS Antenor
                                         27
```

Query 20:

• List of all vehicles older than 10 years

SELECT rd.* FROM roadtransport rd

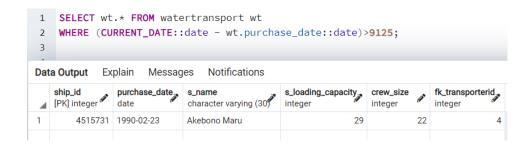
WHERE (CURRENT_DATE::date - rd.purchase_date::date)>3650;



• List of all ships older than 25 years

SELECT wt.* FROM watertransport wt

WHERE (CURRENT_DATE::date - wt.purchase_date::date)>9125;



• List of all plane older than 20 years

SELECT ar.* FROM airtransport ar

WHERE (CURRENT_DATE::date - ar.purchase_date::date)>7300;

