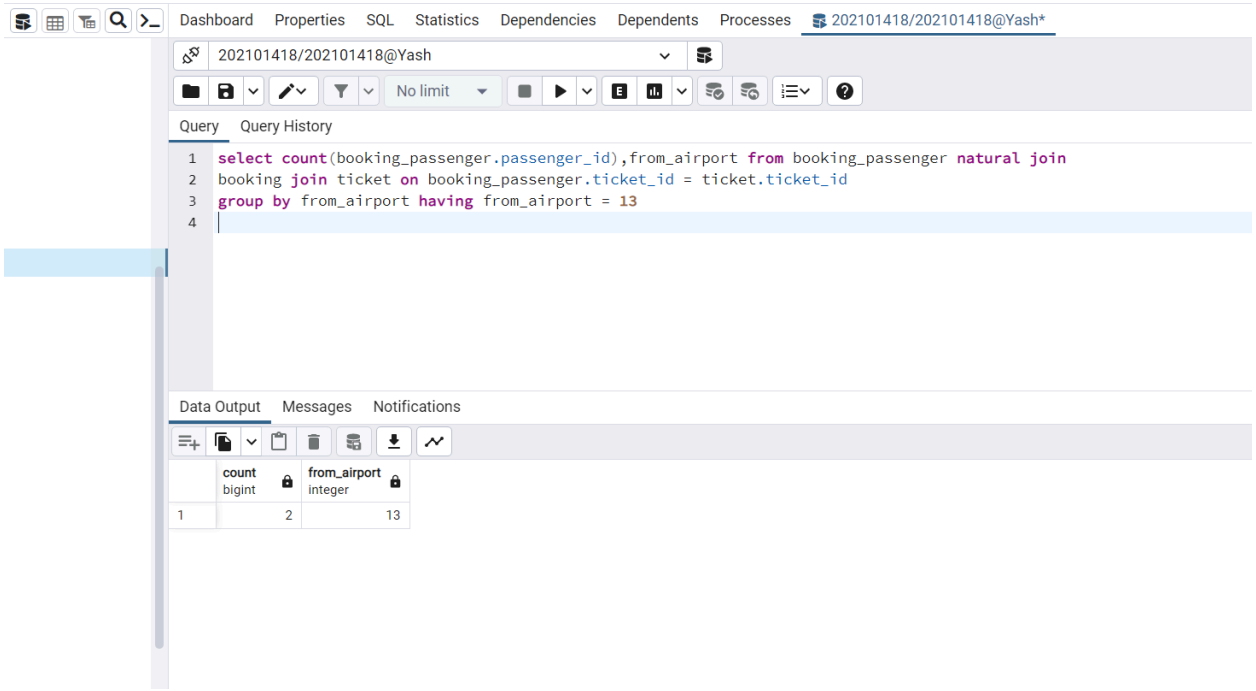
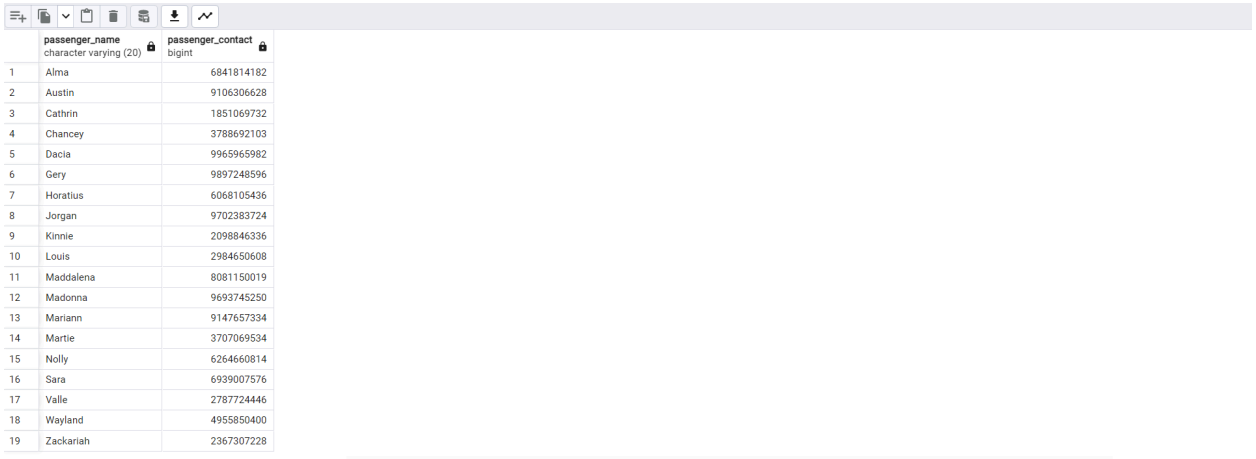
1)Number of passenger who will be flying from airport id 13 :- 2

select count(booking_passenger.passenger_id),from_airport from booking_passenger natural join
booking join ticket on booking_passenger.ticket_id = ticket.ticket_id
group by from_airport having from_airport = 13



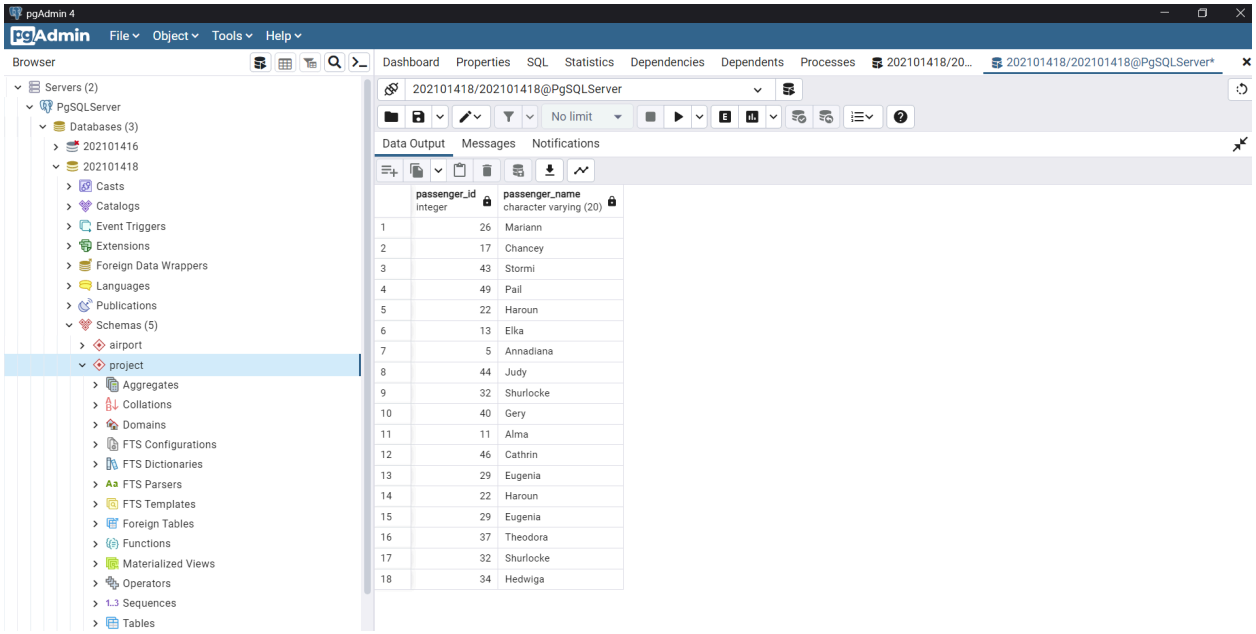
2) Total Passengers whose check-in status was invalid

Select distinct distinct passenger_name,passenger_contact from(checkin natural join ticket) as k natural join passenger where status = 'NOT OK';



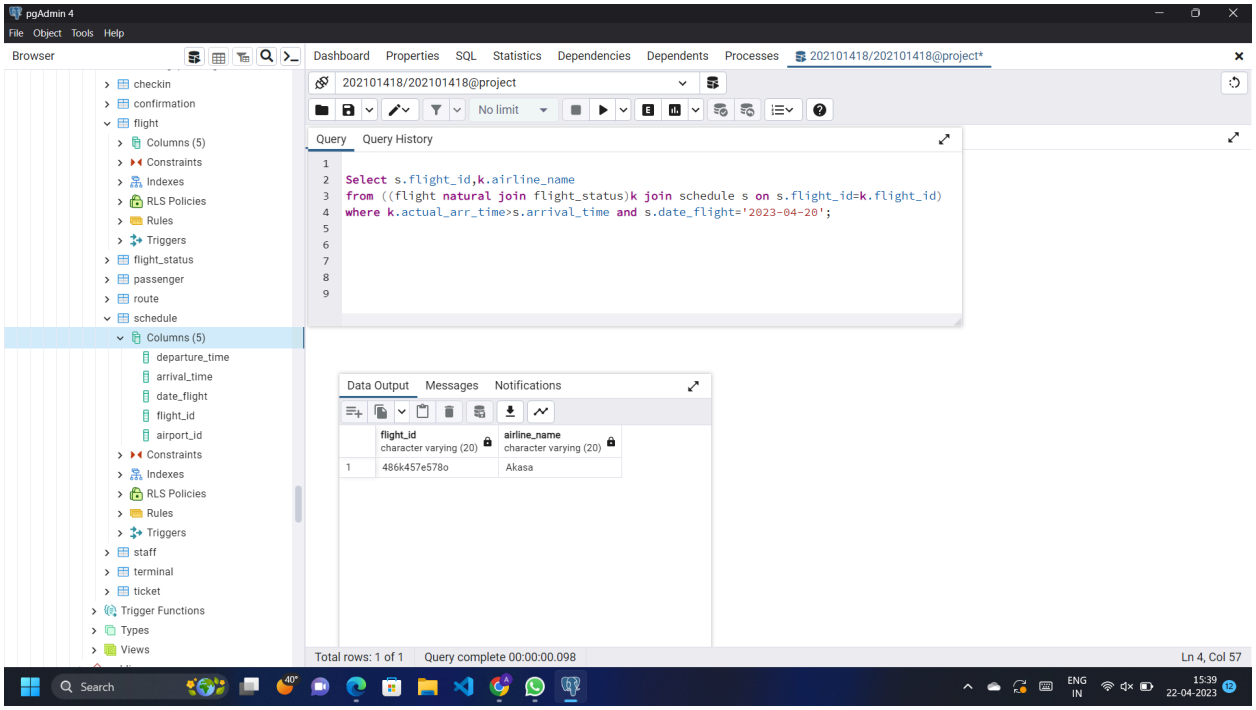
	passenger_name character varying (20)	passenger_contact bigint
1	Alma	6841814182
2	Austin	9106306628
3	Cathrin	1851069732
4	Chancey	3788692103
5	Dacia	9965965982
6	Gery	9897248596
7	Horatius	6068105436
8	Jorgan	9702383724
9	Kinnie	2098846336
10	Louis	2984650608
11	Maddalena	8081150019
12	Madonna	9693745250
13	Mariann	9147657334
14	Martie	3707069534
15	Nolly	6264660814
16	Sara	6939007576
17	Valle	2787724446
18	Wayland	4955850400
19	Zackariah	2367307228

3)
People who missed their flight
select passenger_id,passenger_name from (((select ticket_id from ticket where status= ‘confirmed’
Except
select ticket_id from checkin) as p natural join ticket) as k natural join passenger);



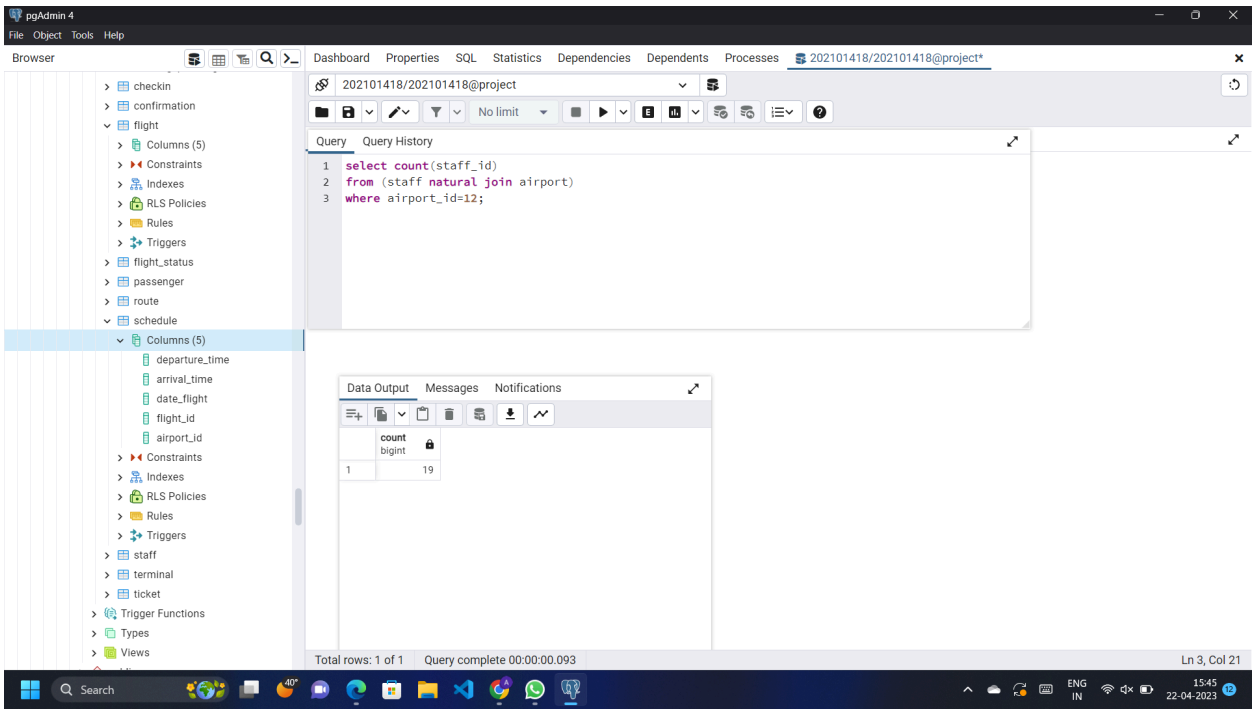
4) Project the flight_id and it’s airlines name which got delayed on 20th April 2023

Select s.flight_id,k.airline_name
from ((flight natural join flight_status)k join schedule s on s.flight_id=k.flight_id)
where k.actual_arr_time>s.arrival_time and s.date_flight='2023-04-20';



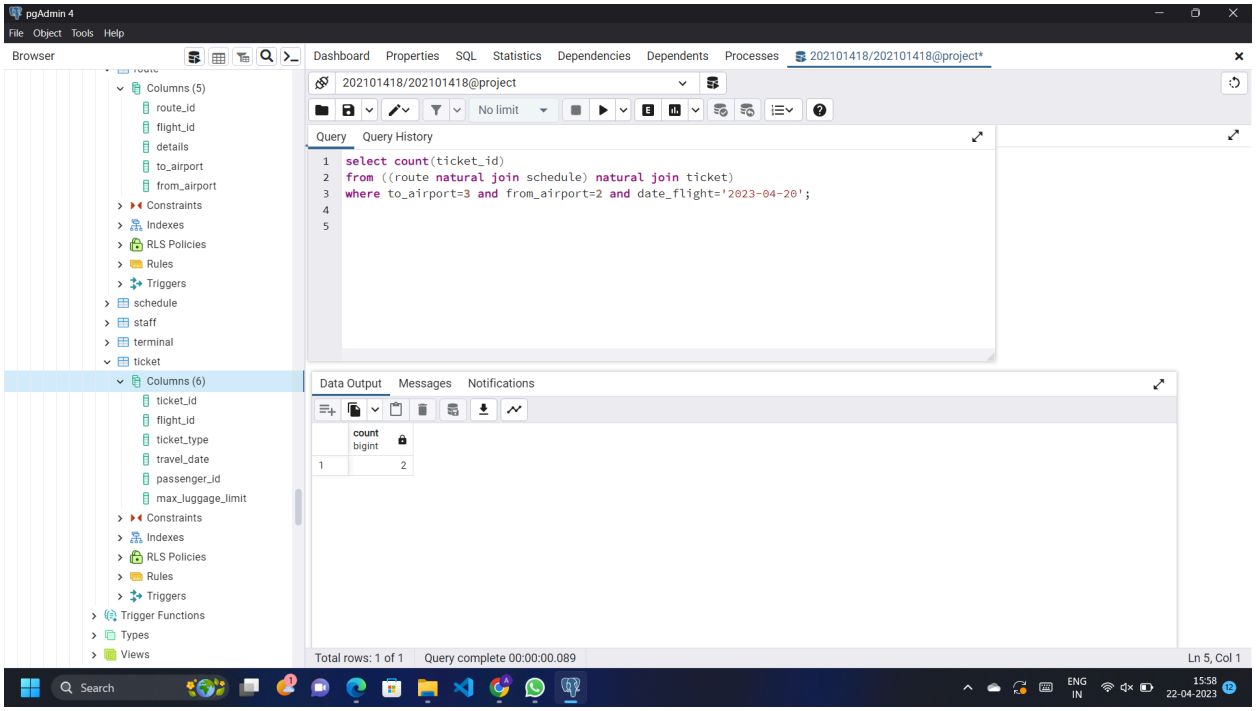
5)Project the number of employees in airport with airport_id = 12

```
select count(staff_id)
from (staff natural join airport)
where airport_id=12;
```



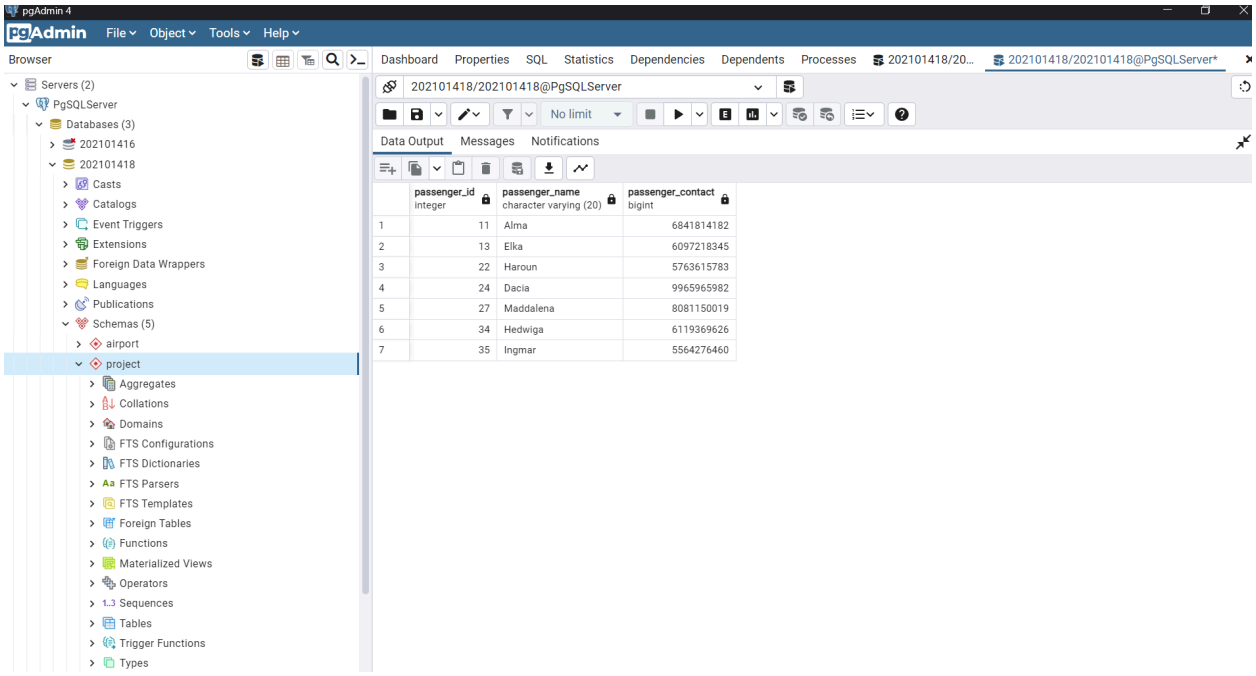
6) Project the number of tickets for a route from airport id = 2 and airport id = 3 on 20th April 2023

```
select count(ticket_id)
from ((route natural join schedule) natural join ticket)
where to_airport=3 and from_airport=2 and date_flight='2023-04-20';
```



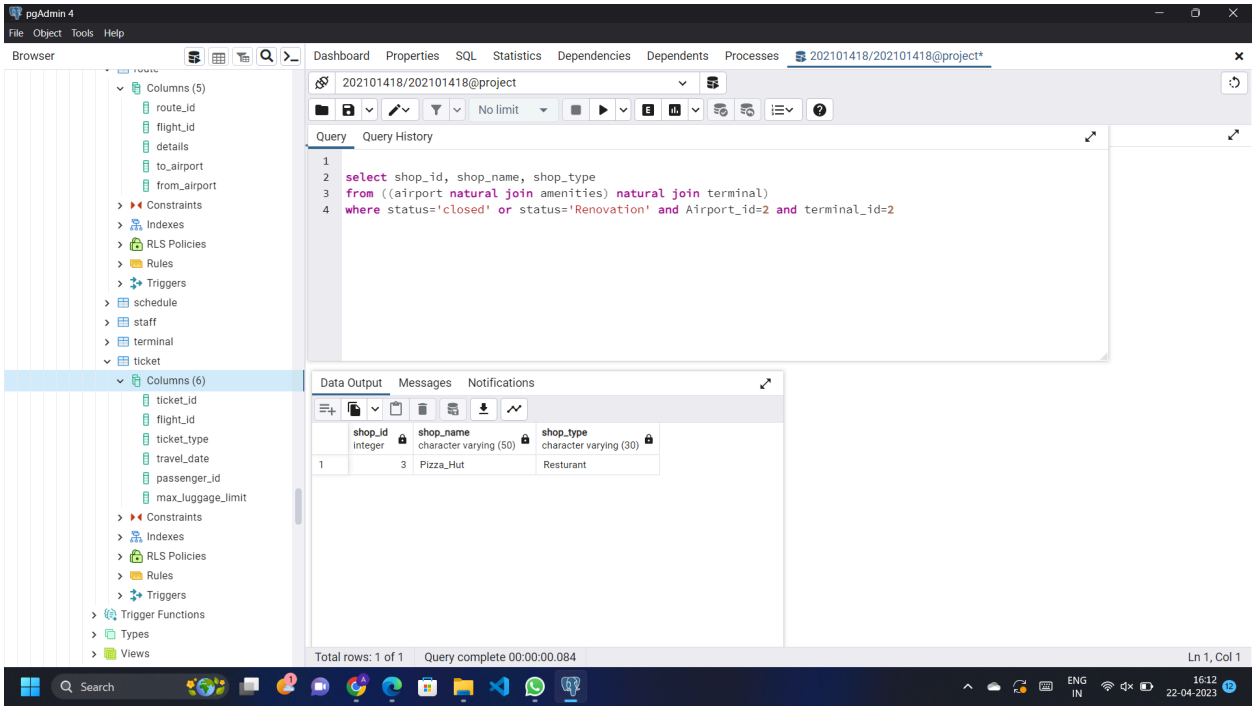
7)
List the people whose tickets are yet to be confirmed

select distinct passenger_id, passenger_name, and passenger_contact from ticket as c natural join booking_passenger natural join passenger where
c.status = 'Not-Confirmed';



8) List the shop id, shop name and shop type which are closed or are under renovation in airport_id=2 and in the terminal id = 2.

select shop_id, shop_name, shop_type
from ((airport natural join amenities) natural join terminal)
where status='closed' or status='Renovation' and Airport_id=2 and terminal_id=2



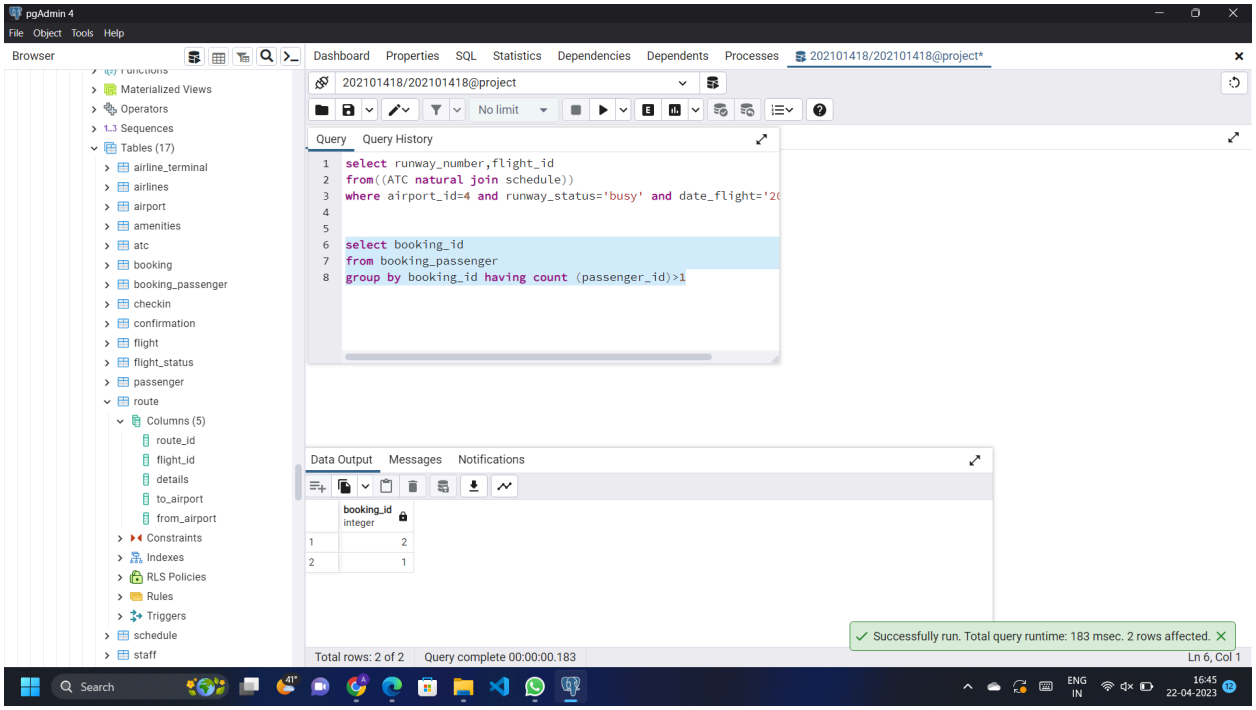
9) count airlines on particular airport

select count(airline_name),airport_id from airline_terminal group by airport_id;

	count bigint	airport_id integer
1	6	8
2	3	11
3	4	19
4	5	4
5	4	14
6	4	3
7	3	17
8	4	20
9	3	13
10	4	10
11	5	7
12	5	9
13	2	1
14	2	5
15	3	18
16	4	2
17	3	15
18	4	16
19	2	6
20	1	12

10) List the booking id of tickets having same booking id

```
select booking_id
from booking_passenger
group by booking_id having count (passenger_id)>1
```

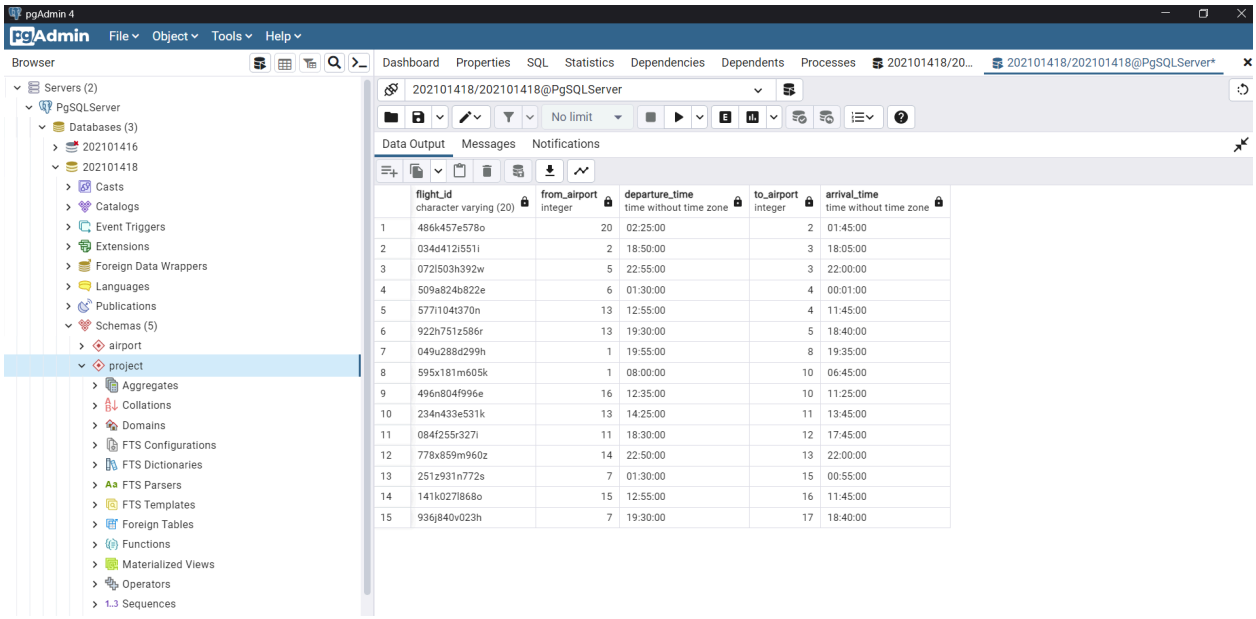


11) List flight details of flights arriving on a particular date at a particular airport
select flight_id,airline_name,arrival_time,departure_time from(schedule natural join flight) where airport_id=2 and date_flight='2023-04-20';

	flight_id character varying (20)	airline_name character varying (20)	arrival_time time without time zone	departure_time time without time zone
1	072l503h392w	Green Inc	22:00:00	22:55:00
2	509a824b822e	Indigo	00:01:00	01:30:00

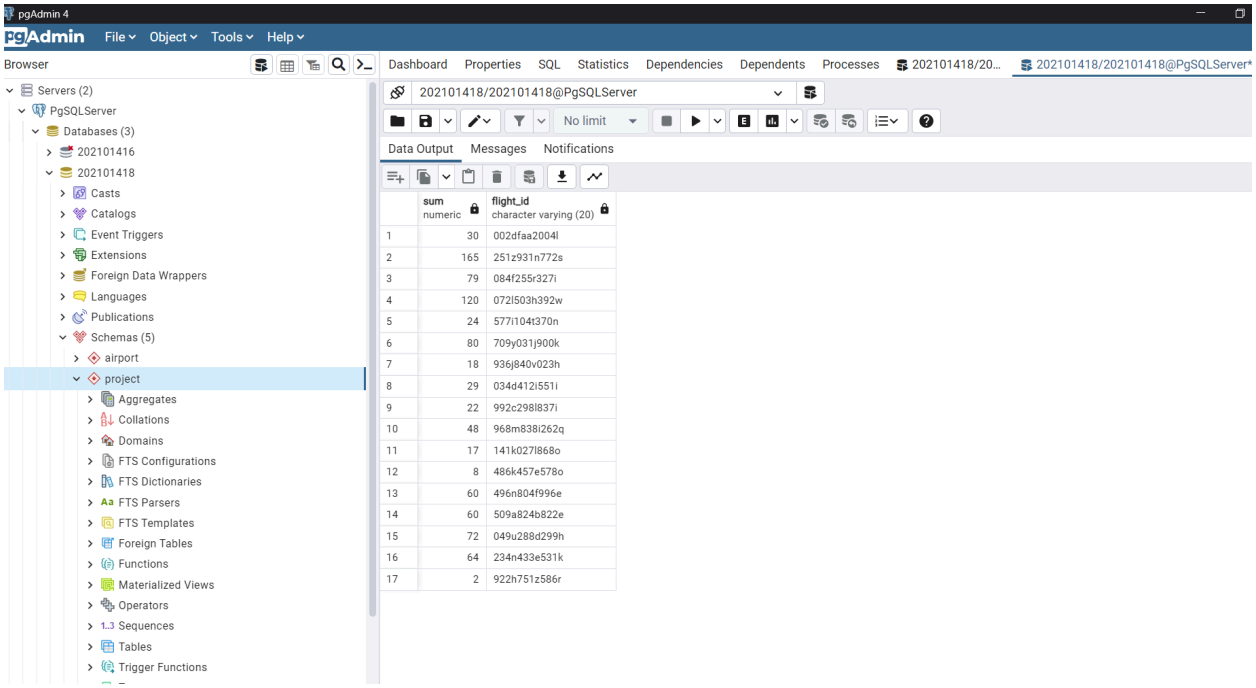
12)Give Schedule(Departure Time,Arrival Time,Source Airport,Destination Airport) Of A Flight (doubt - why only 15 flights and also how to write airport name instead of id)

select flight_id, r.from_airport, departure_time, r.to_airport, arrival_time
from (schedule natural join (airport natural join route as r));



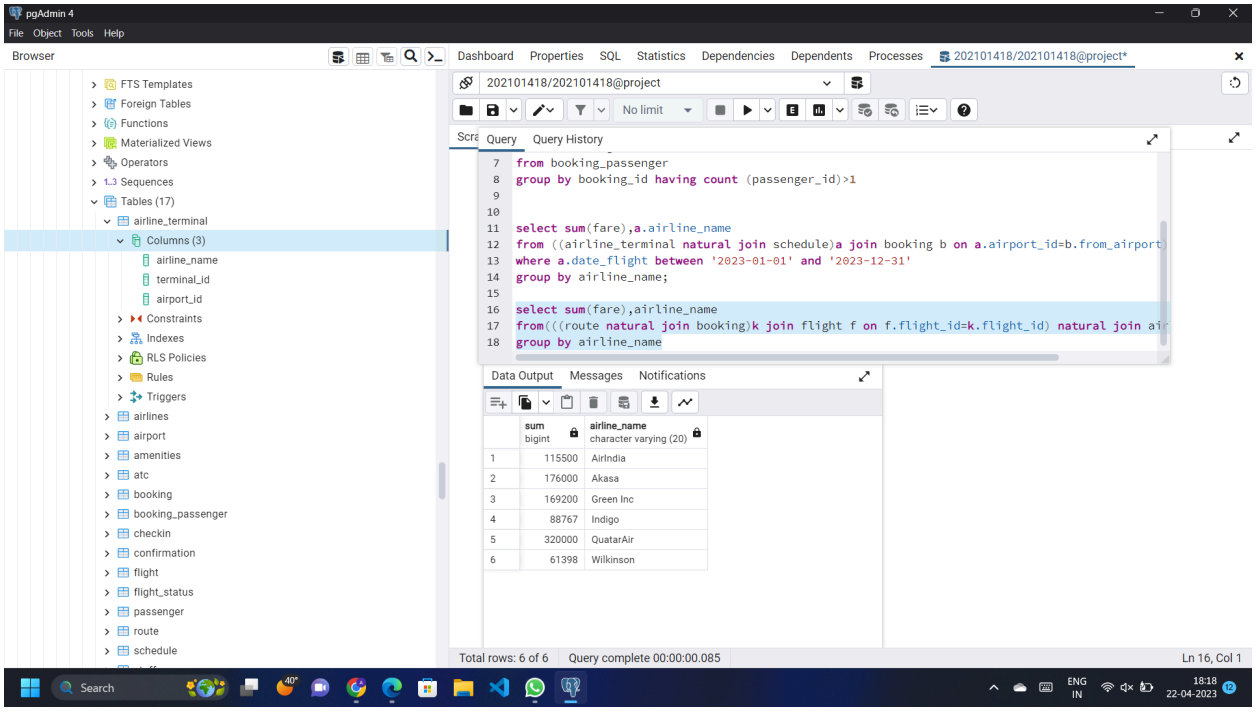
	flight_id character varying (20)	from_airport integer	departure_time time without time zone	to_airport integer	arrival_time time without time zone
1	486k457e578o	20	02:25:00	2	01:45:00
2	034d412i551i	2	18:50:00	3	18:05:00
3	072l503h392w	5	22:55:00	3	22:00:00
4	509a824b822e	6	01:30:00	4	00:01:00
5	577i104t370n	13	12:55:00	4	11:45:00
6	922h751z586r	13	19:30:00	5	18:40:00
7	049u288d299h	1	19:55:00	8	19:35:00
8	595x181m605k	1	08:00:00	10	06:45:00
9	496n804f996e	16	12:35:00	10	11:25:00
10	234n433e531k	13	14:25:00	11	13:45:00
11	084f255r327l	11	18:30:00	12	17:45:00
12	778x859m960z	14	22:50:00	13	22:00:00
13	251z931n772s	7	01:30:00	15	00:55:00
14	141k027l868o	15	12:55:00	16	11:45:00
15	936j840v023h	7	19:30:00	17	18:40:00

13)
Total weight carried on a particular flight
select sum(weight), flight_id from checkin natural join ticket group by flight_id;



14) List the total revenue of each airline

```
select sum(fare),airline_name
from(((route natural join booking)p natural join route_flight k join flight f on f.flight_id=k.flight_id)
natural join airline_terminal)
group by airline_name
```



15) list passengers arriving on particular airport on a particular day

select airport_city,count(passenger_id) from (((route join airport on to_airport=airport_id)as k natural join route_flight) natural join ticket)as p join schedule on p.flight_id=schedule.flight_id) group by airport_city,date_flight having date_flight='2023-04-20';

	airport_city character varying (20)	count bigint
1	Ahmedabad	5
2	Delhi	1
3	Hyderabad	1
4	Kolkata	6
5	London	4
6	Paris	1

16) List flights having time interval greater than 6 hours

select * from flight_status as f1 natural join route join flight_status as f2
on f2.airport_id = route.to_airport and route.flight_id = f2.flight_id
where f2.actual_arr_time - f1.actual_dep_time > '6:00:00';

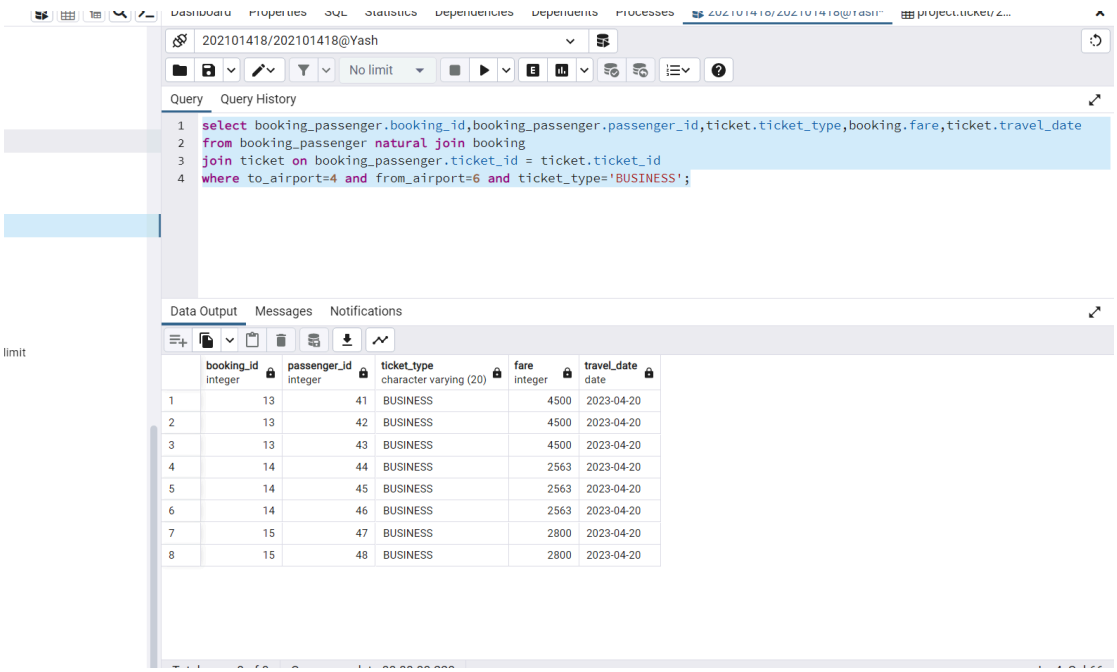
```
set search_path to project;

select * from flight_status as f1 natural join route join flight_status as f2
on f2.airport_id = route.to_airport and route.flight_id = f2.flight_id
where f2.actual_arr_time - f1.actual_dep_time > '6:00:00';
```

Data Output | Messages | Notifications

flight_id	actual_dep_time	actual_arr_time	date_flight	terminal_id	airport_id	route_id	details	to_airport
character varying (20)	time without time zone	time without time zone	date	integer	integer	integer	character varying (200)	integer

17) Find passenger who flew in business class from airport 6 to airport 4

select
booking_passenger.booking_id,booking_passenger.passenger_id,ticket.ticket_type,booking.fare
,ticket.travel_date
from booking_passenger natural join booking
join ticket on booking_passenger.ticket_id = ticket.ticket_id
where to_airport=4 and from_airport=6 and ticket_type='BUSINESS';

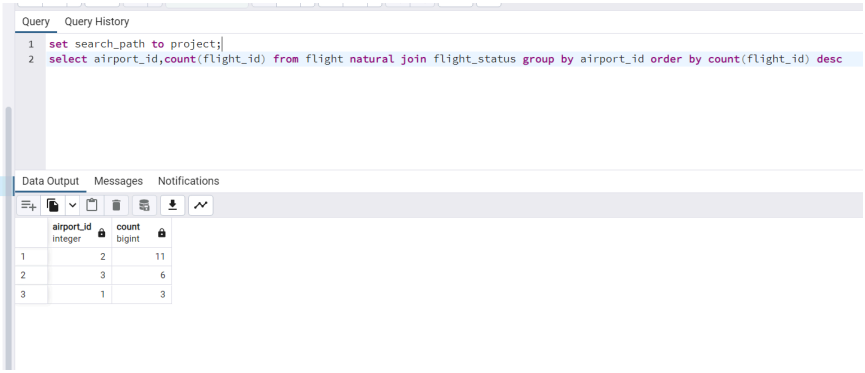


	booking_id	passenger_id	ticket_type	fare	travel_date
	integer	integer	character varying (20)	integer	date
1	13	41	BUSINESS	4500	2023-04-20
2	13	42	BUSINESS	4500	2023-04-20
3	13	43	BUSINESS	4500	2023-04-20
4	14	44	BUSINESS	2563	2023-04-20
5	14	45	BUSINESS	2563	2023-04-20
6	14	46	BUSINESS	2563	2023-04-20
7	15	47	BUSINESS	2800	2023-04-20
8	15	48	BUSINESS	2800	2023-04-20

18)Write the order of busiest airports based on number of passengers

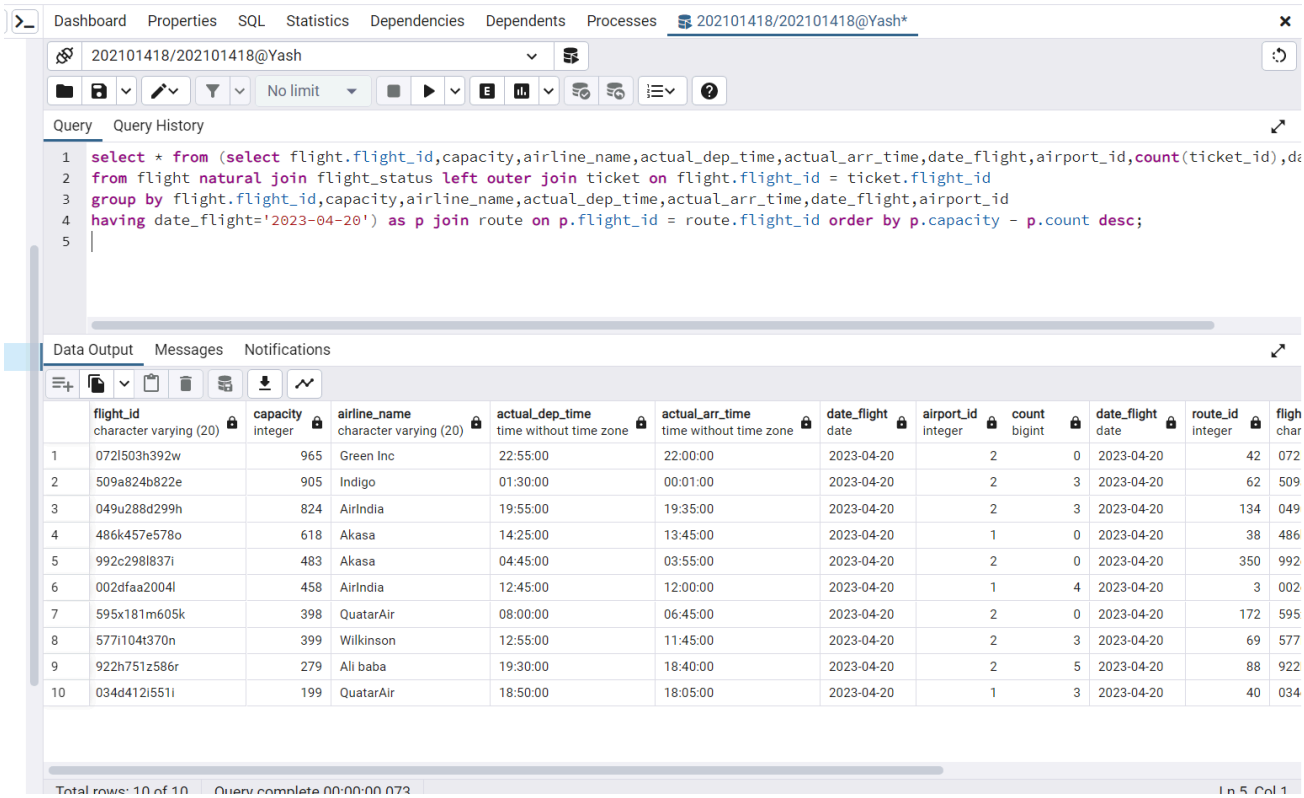
select airport_id,count(passenger_id) from ticket natural join flight natural join flight_status group by airport_id order by count(passenger_id) desc

19)Busiest Airport in terms of flights
select airport_id,count(flight_id) from flight natural join flight_status group by airport_id order by count(flight_id) desc



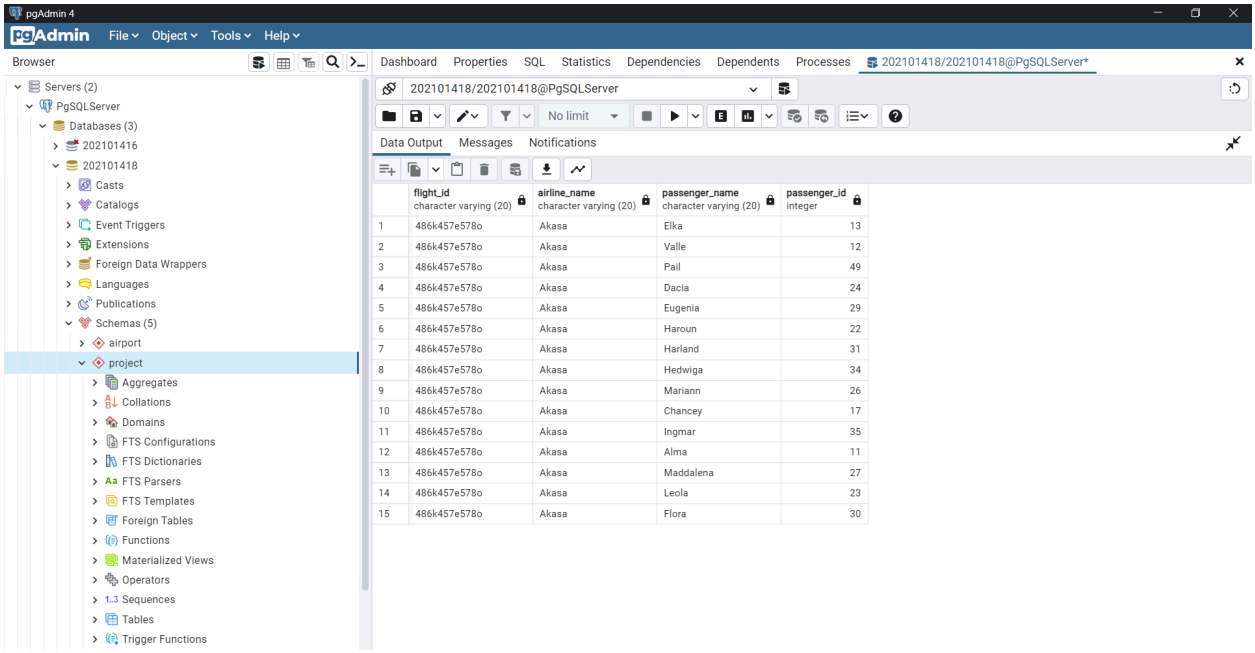
20)Descending order of capacity - count going flight's route on 20th april

select * from (select
flight.flight_id,capacity,airline_name,actual_dep_time,actual_arr_time,date_flight,airport_id,count(ticket_id),date_flight
from flight natural join flight_status left outer join ticket on flight.flight_id = ticket.flight_id
group by
flight.flight_id,capacity,airline_name,actual_dep_time,actual_arr_time,date_flight,airport_id
having date_flight='2023-04-20') as p join route on p.flight_id = route.flight_id order by
p.capacity - p.count desc;



21)People affected by delay in flight schedule -

Select distinct s.flight_id,p.passenger_name,p.passenger_id
from (((flight natural join flight_status)k natural join schedule s) natural join ticket) natural join(select ticket_id from checkin where status = ‘confirmed’) natural join booking_passenger natural join passenger p
where k.actual_arr_time>s.arrival_time and s.date_flight='2023-04-20';



	flight_id character varying (20)	airline_name character varying (20)	passenger_name character varying (20)	passenger_id integer
1	486k457e578o	Akasa	Elka	13
2	486k457e578o	Akasa	Valle	12
3	486k457e578o	Akasa	Pail	49
4	486k457e578o	Akasa	Dacia	24
5	486k457e578o	Akasa	Eugenia	29
6	486k457e578o	Akasa	Haroun	22
7	486k457e578o	Akasa	Harland	31
8	486k457e578o	Akasa	Hedwiga	34
9	486k457e578o	Akasa	Mariann	26
10	486k457e578o	Akasa	Chancey	17
11	486k457e578o	Akasa	Ingmar	35
12	486k457e578o	Akasa	Alma	11
13	486k457e578o	Akasa	Maddalena	27
14	486k457e578o	Akasa	Leola	23
15	486k457e578o	Akasa	Flora	30