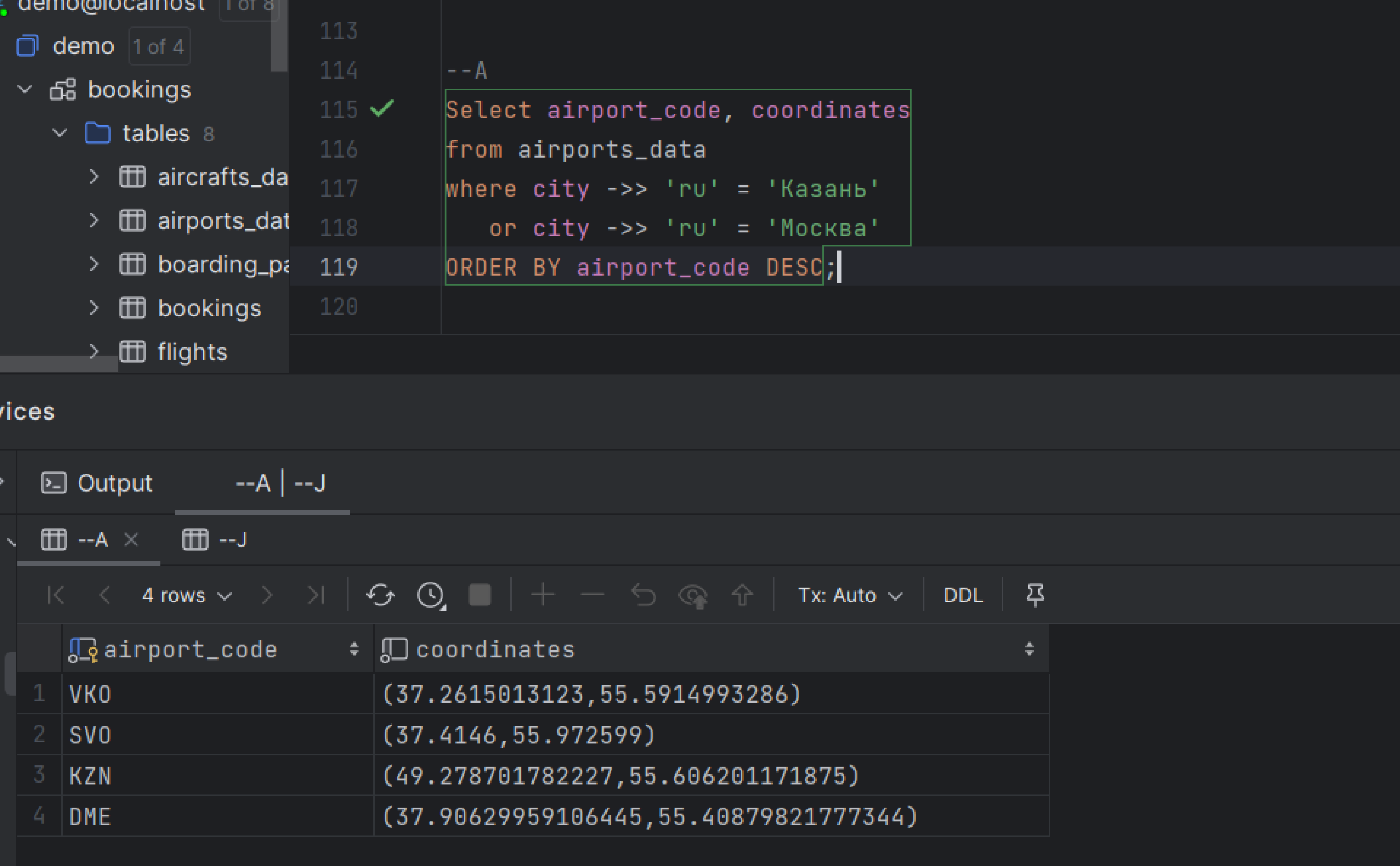
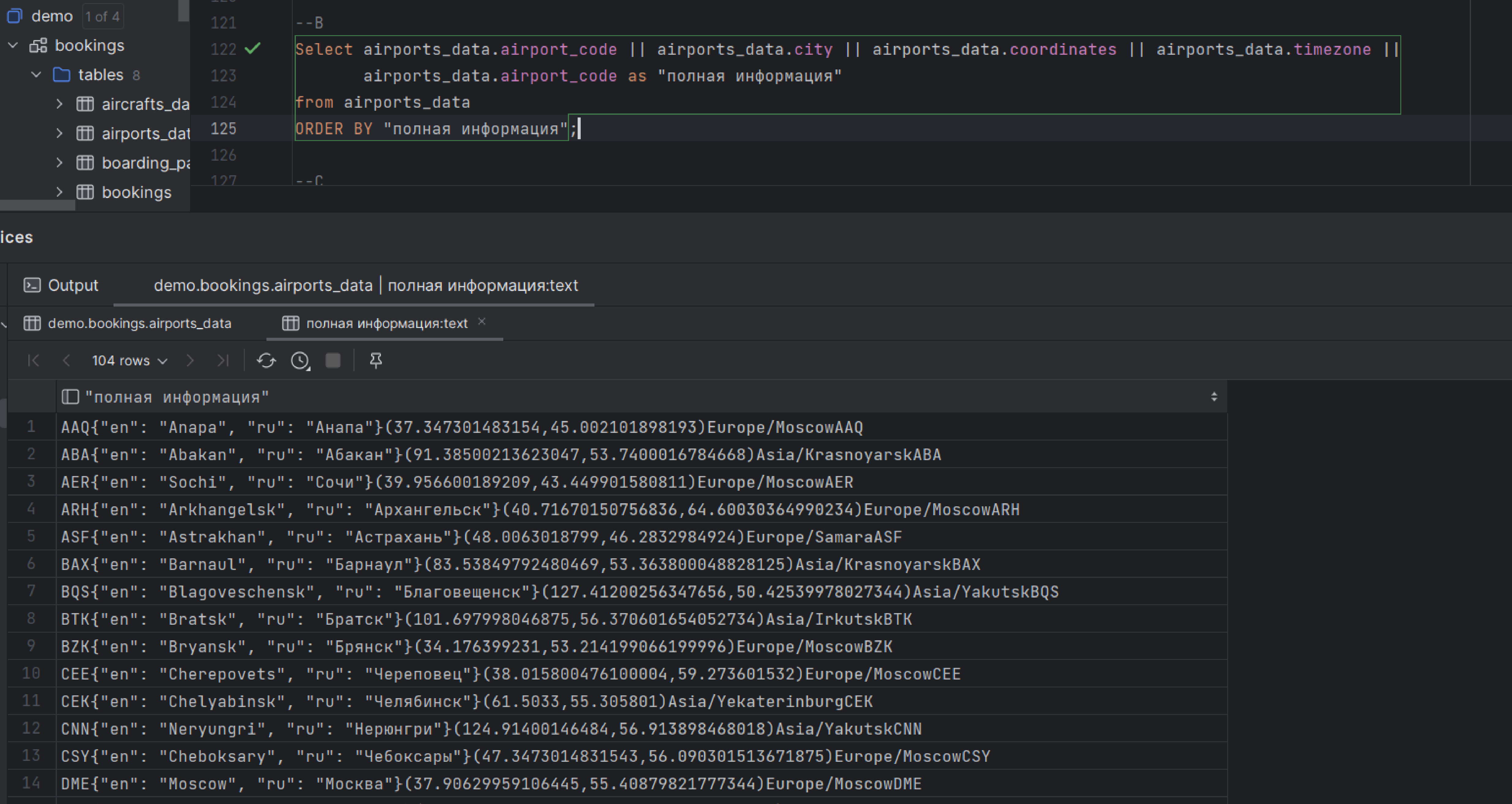


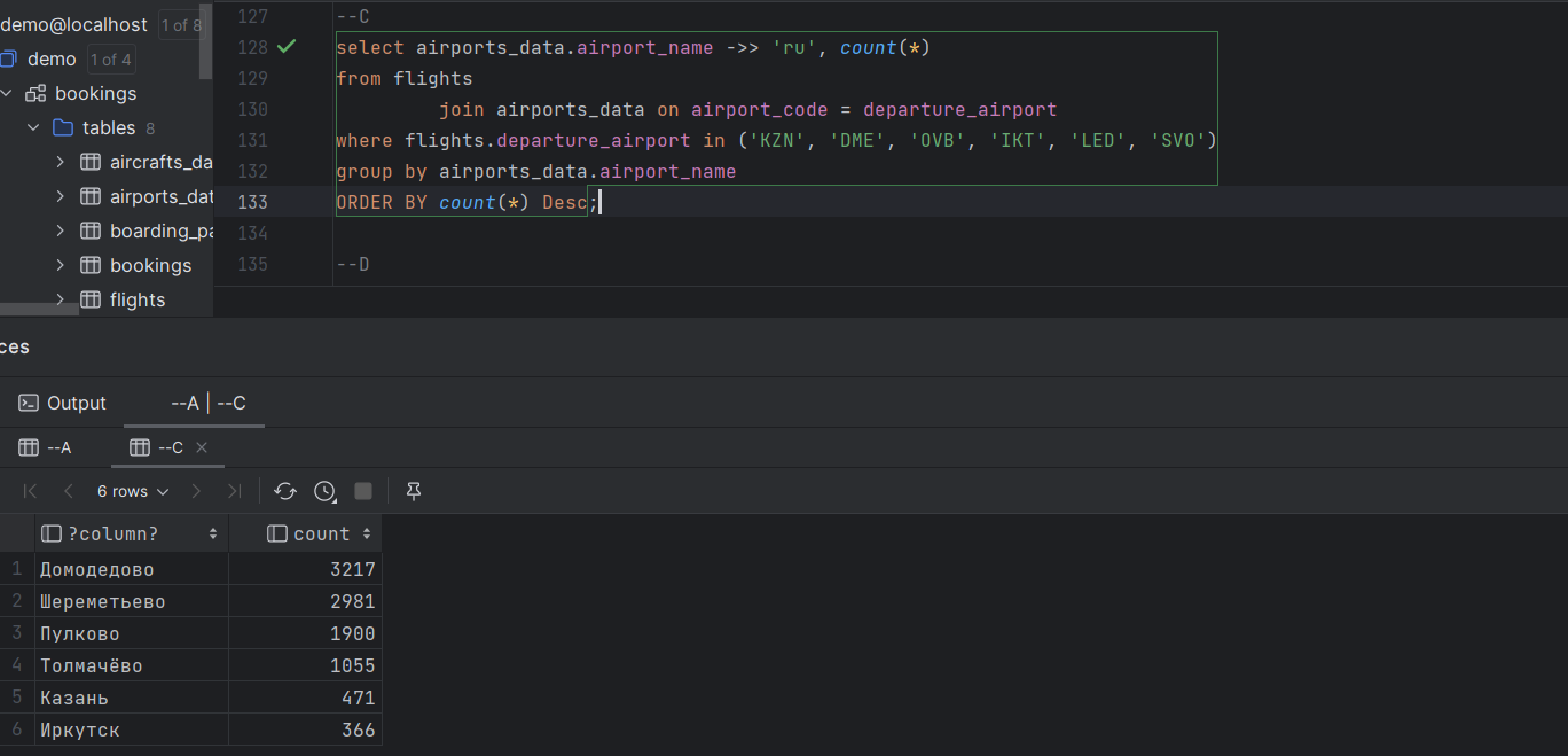
```sql
--A
Select airport_code, coordinates
from airports_data
where city ->> 'ru' = 'Казань'
   or city ->> 'ru' = 'Москва'
ORDER BY airport_code DESC;
```

	airport_code	coordinates
1	VKO	(37.2615013123,55.5914993286)
2	SVO	(37.4146,55.972599)
3	KZN	(49.278701782227,55.606201171875)
4	DME	(37.90629959106445,55.40879821777344)



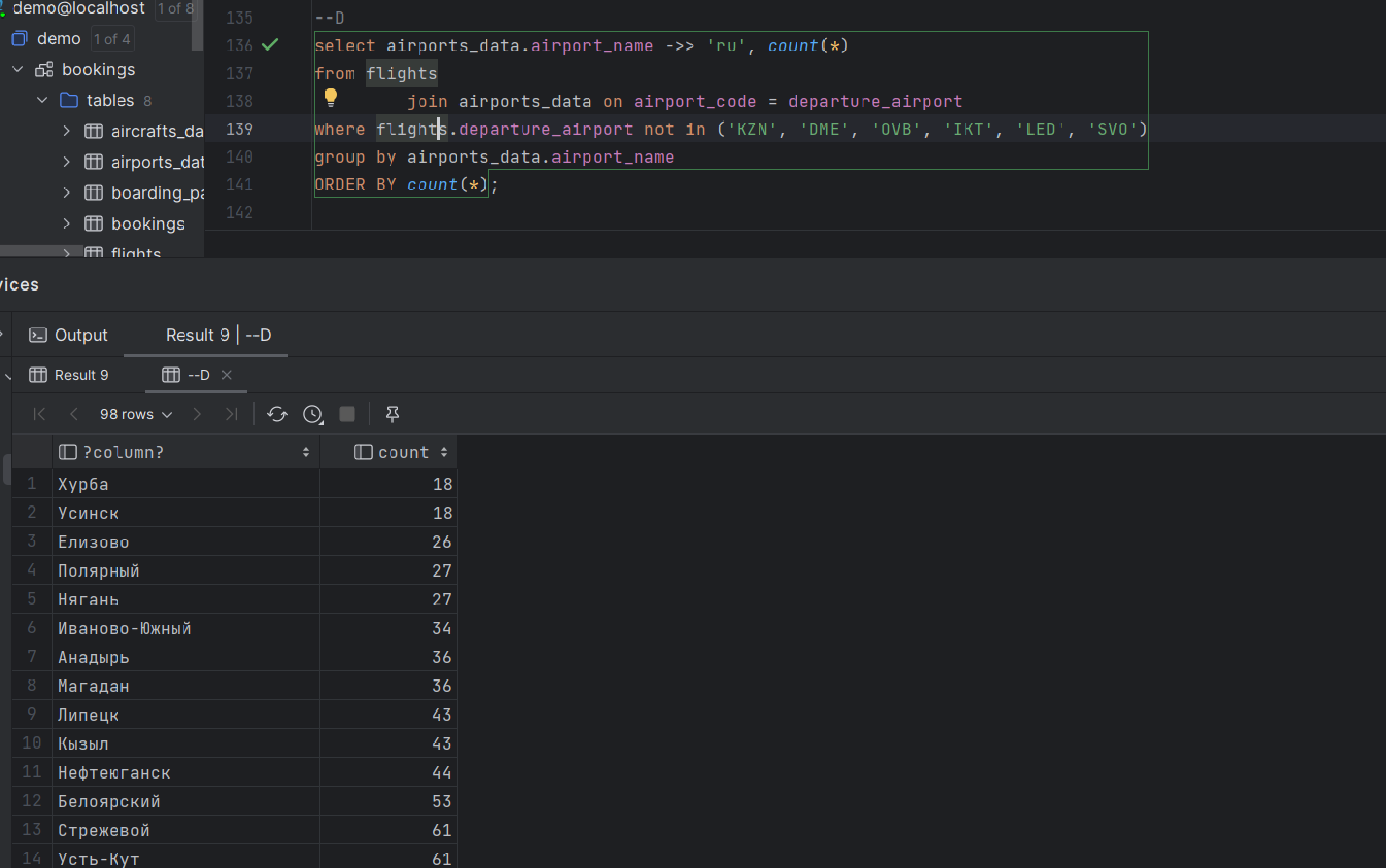
```sql
--B
Select airports_data.airport_code || airports_data.city || airports_data.coordinates || airports_data.timezone ||
       airports_data.airport_code as "полная информация"
from airports_data
ORDER BY "полная информация";

--C
```

	"полная информация"
1	AAQ{"en": "Anapa", "ru": "Анапа"}(37.347301483154,45.002101898193)Europe/MoscowAAQ
2	ABA{"en": "Abakan", "ru": "Абакан"}(91.38500213623047,53.7400016784668)Asia/KrasnoyarskABA
3	AER{"en": "Sochi", "ru": "Сочи"}(39.956600189209,43.449901580811)Europe/MoscowAER
4	ARH{"en": "Arkhangelsk", "ru": "Архангельск"}(40.71670150756836,64.60030364990234)Europe/MoscowARH
5	ASF{"en": "Astrakhan", "ru": "Астрахань"}(48.0063018799,46.2832984924)Europe/SamaraASF
6	BAX{"en": "Barnaul", "ru": "Барнаул"}(83.53849792480469,53.363800048828125)Asia/KrasnoyarskBAX
7	BQS{"en": "Blagoveschensk", "ru": "Благовещенск"}(127.41200256347656,50.42539978027344)Asia/YakutskBQS
8	BTK{"en": "Bratsk", "ru": "Братск"}(101.697998046875,56.370601654052734)Asia/IrkutskBTK
9	BZK{"en": "Bryansk", "ru": "Брянск"}(34.176399231,53.214199066199996)Europe/MoscowBZK
10	CEE{"en": "Cherepovets", "ru": "Череповец"}(38.015800476100004,59.273601532)Europe/MoscowCEE
11	CEK{"en": "Chelyabinsk", "ru": "Челябинск"}(61.5033,55.305801)Asia/YekaterinburgCEK
12	CNN{"en": "Neryungri", "ru": "Нерюнгри"}(124.91400146484,56.913898468018)Asia/YakutskCNN
13	CSY{"en": "Cheboksary", "ru": "Чебоксары"}(47.3473014831543,56.090301513671875)Europe/MoscowCSY
14	DME{"en": "Moscow", "ru": "Москва"}(37.90629959106445,55.40879821777344)Europe/MoscowDME



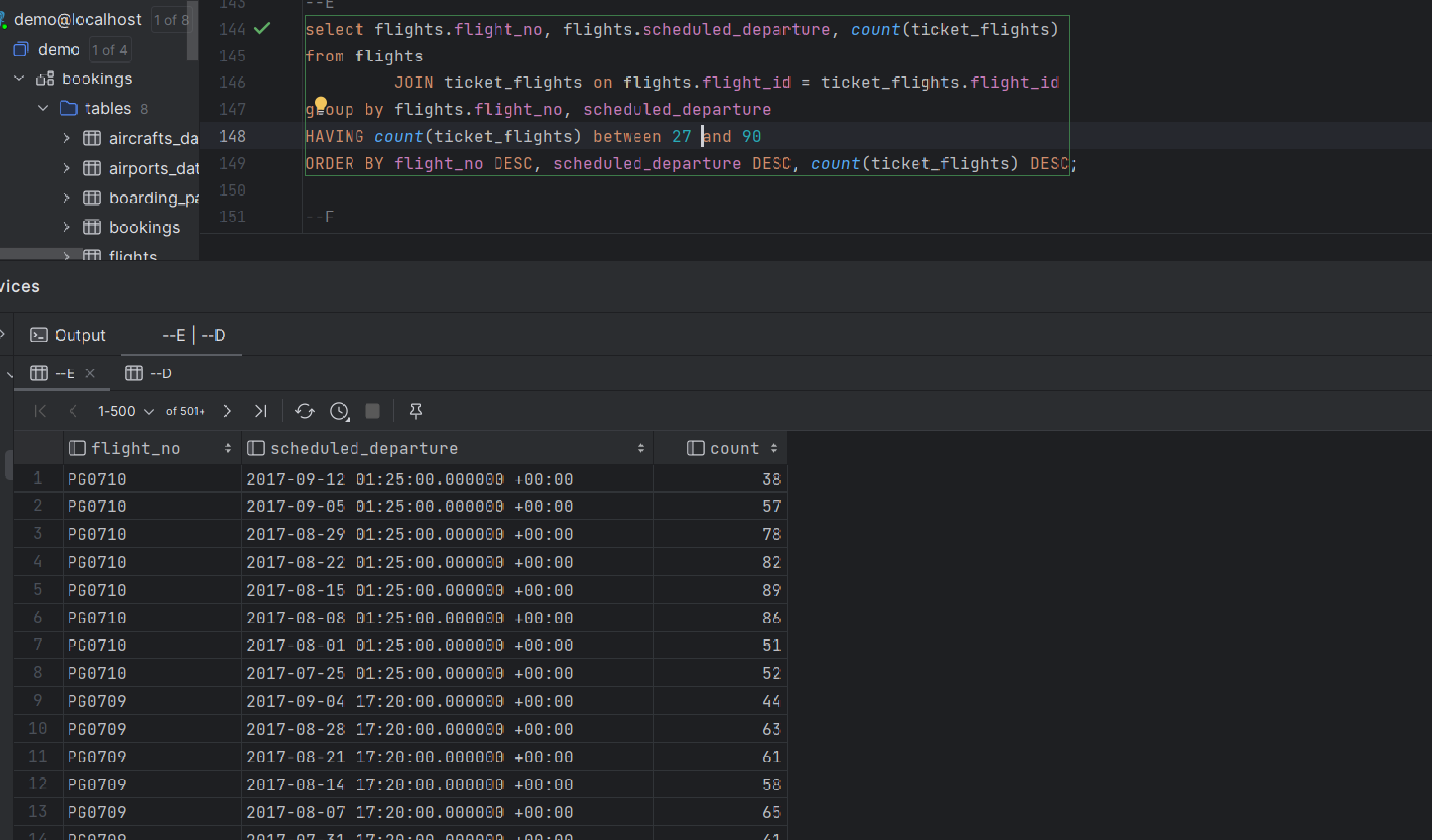
```
--C
select airports_data.airport_name ->> 'ru', count(*)
from flights
        join airports_data on airport_code = departure_airport
where flights.departure_airport in ('KZN', 'DME', 'OVB', 'IKT', 'LED', 'SVO')
group by airports_data.airport_name
ORDER BY count(*) Desc;

--D
```

	?column?	count
1	Домодедово	3217
2	Шереметьево	2981
3	Пулково	1900
4	Толмачёво	1055
5	Казань	471
6	Иркутск	366



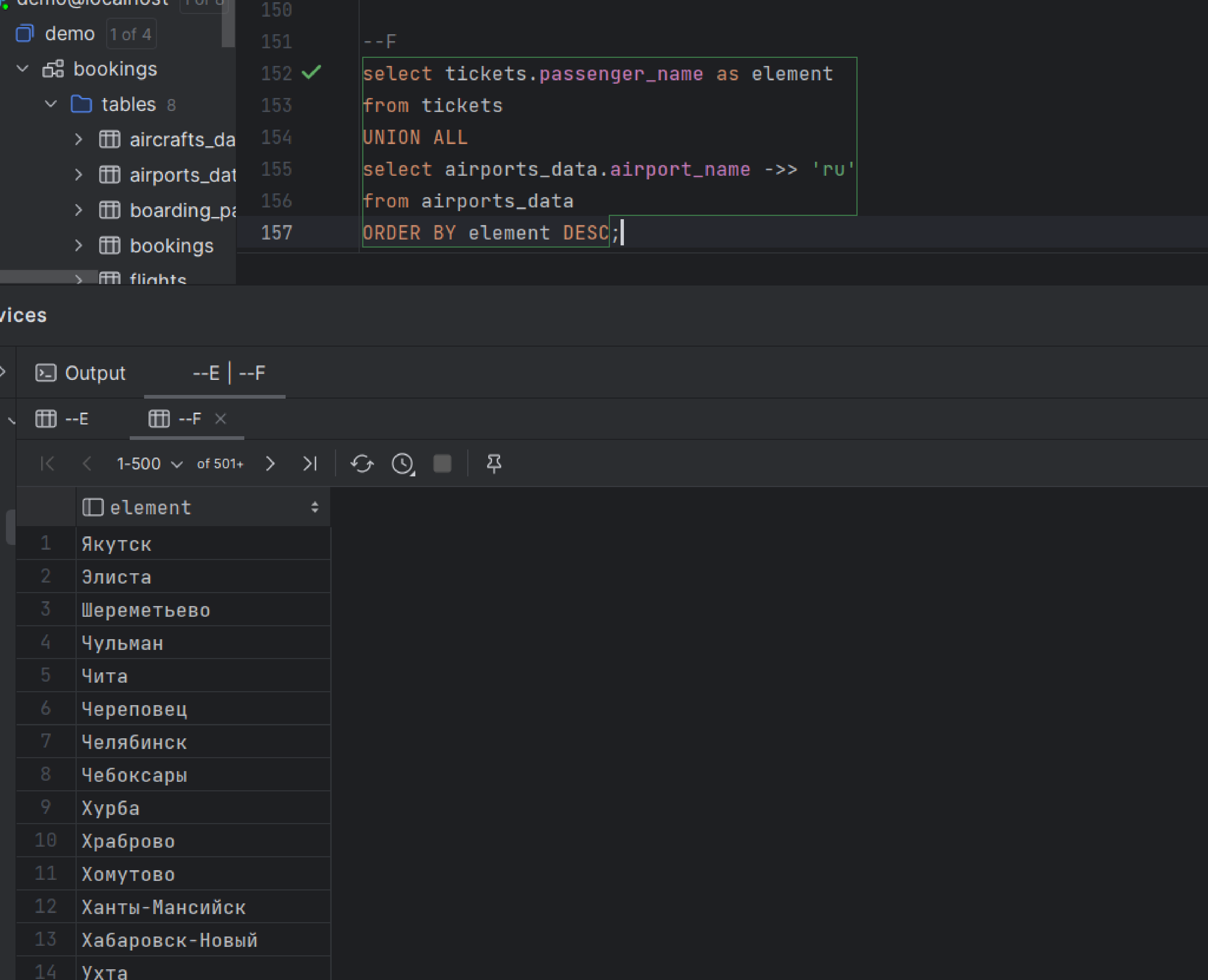
```
--D
select airports_data.airport_name ->> 'ru', count(*)
from flights
        join airports_data on airport_code = departure_airport
where flights.departure_airport not in ('KZN', 'DME', 'OVB', 'IKT', 'LED', 'SVO')
group by airports_data.airport_name
ORDER BY count(*);
```

	?column?	count
1	Хурба	18
2	Усинск	18
3	Елизово	26
4	Полярный	27
5	Нягань	27
6	Иваново-Южный	34
7	Анадырь	36
8	Магадан	36
9	Липецк	43
10	Кызыл	43
11	Нефтеюганск	44
12	Белоярский	53
13	Стрежевой	61
14	Усть-Кут	61



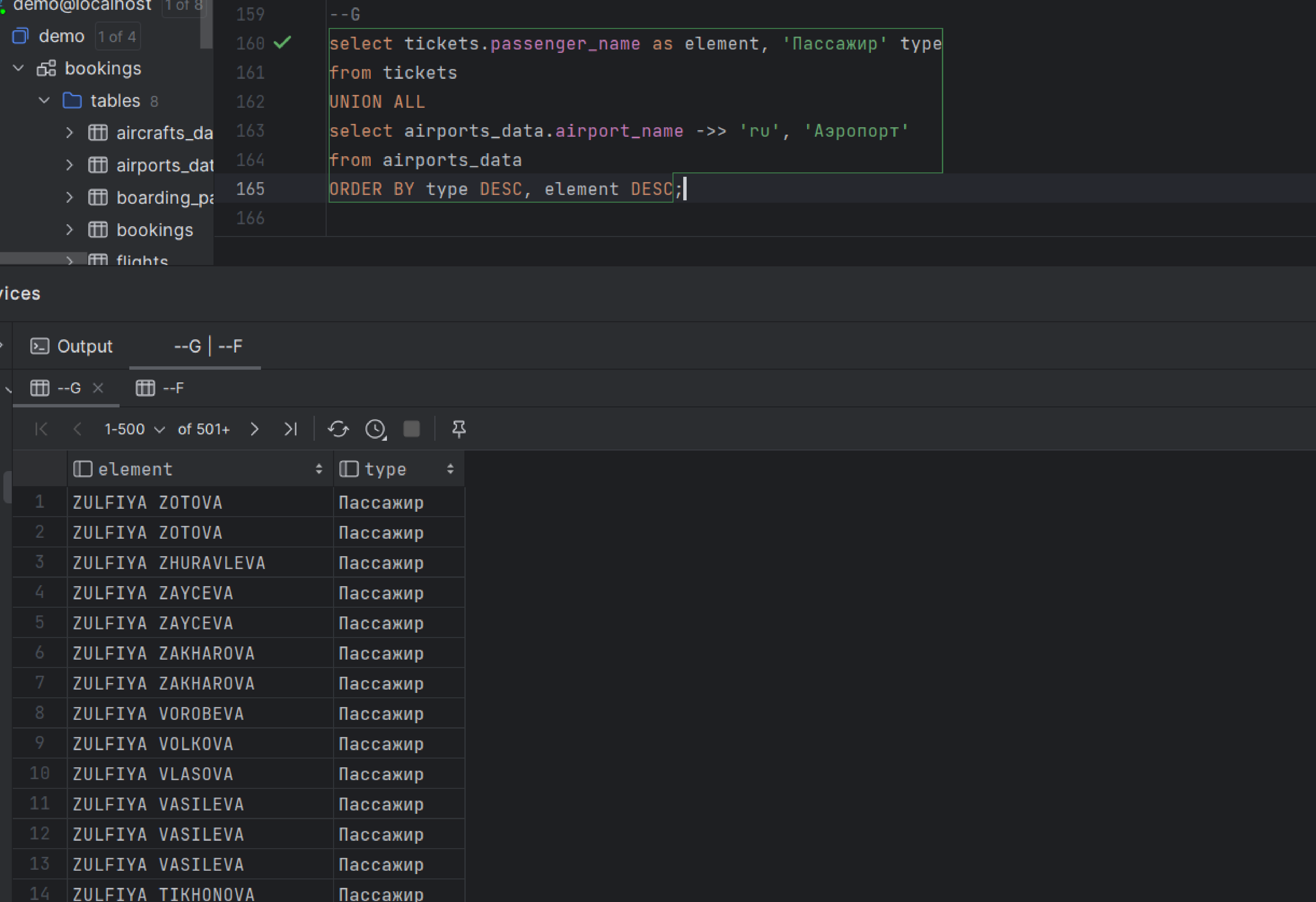
```
--E
select flights.flight_no, flights.scheduled_departure, count(ticket_flights)
from flights
        JOIN ticket_flights on flights.flight_id = ticket_flights.flight_id
group by flights.flight_no, scheduled_departure
HAVING count(ticket_flights) between 27 and 90
ORDER BY flight_no DESC, scheduled_departure DESC, count(ticket_flights) DESC;

--F
```

	flight_no	scheduled_departure	count
1	PG0710	2017-09-12 01:25:00.000000 +00:00	38
2	PG0710	2017-09-05 01:25:00.000000 +00:00	57
3	PG0710	2017-08-29 01:25:00.000000 +00:00	78
4	PG0710	2017-08-22 01:25:00.000000 +00:00	82
5	PG0710	2017-08-15 01:25:00.000000 +00:00	89
6	PG0710	2017-08-08 01:25:00.000000 +00:00	86
7	PG0710	2017-08-01 01:25:00.000000 +00:00	51
8	PG0710	2017-07-25 01:25:00.000000 +00:00	52
9	PG0709	2017-09-04 17:20:00.000000 +00:00	44
10	PG0709	2017-08-28 17:20:00.000000 +00:00	63
11	PG0709	2017-08-21 17:20:00.000000 +00:00	61
12	PG0709	2017-08-14 17:20:00.000000 +00:00	58
13	PG0709	2017-08-07 17:20:00.000000 +00:00	65
14	PG0709	2017-07-31 17:20:00.000000 +00:00	61



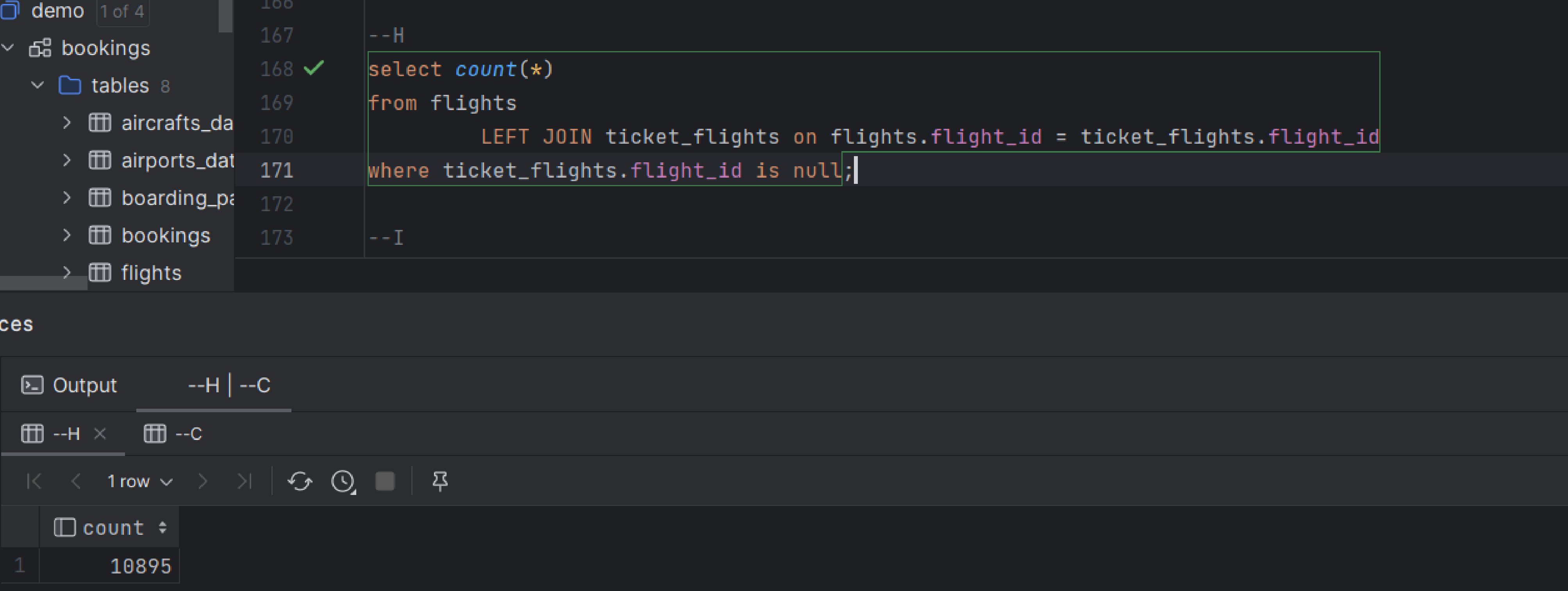
```
--F
select tickets.passenger_name as element
from tickets
UNION ALL
select airports_data.airport_name ->> 'ru'
from airports_data
ORDER BY element DESC;
```

	element
1	Якутск
2	Элиста
3	Шереметьево
4	Чульман
5	Чита
6	Череповец
7	Челябинск
8	Чебоксары
9	Хурба
10	Храброво
11	Хомутово
12	Ханты-Мансийск
13	Хабаровск-Новый
14	Ухта



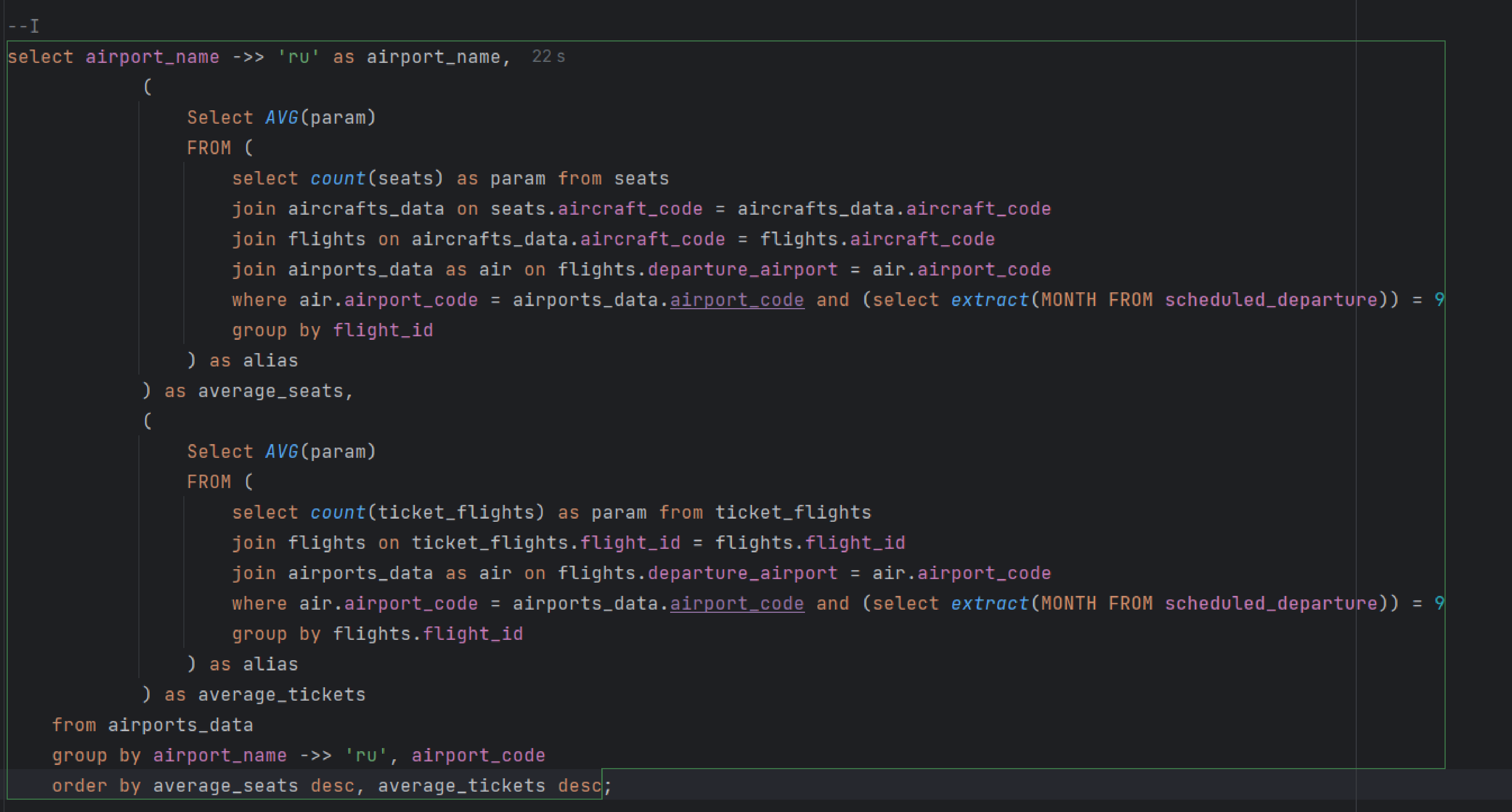
```
--G
select tickets.passenger_name as element, 'Пассажир' type
from tickets
UNION ALL
select airports_data.airport_name ->> 'ru', 'Аэропорт'
from airports_data
ORDER BY type DESC, element DESC;
```

	element	type
1	ZULFIYA ZOTOVA	Пассажир
2	ZULFIYA ZOTOVA	Пассажир
3	ZULFIYA ZHURAVLEVA	Пассажир
4	ZULFIYA ZAYCEVA	Пассажир
5	ZULFIYA ZAYCEVA	Пассажир
6	ZULFIYA ZAKHAROVA	Пассажир
7	ZULFIYA ZAKHAROVA	Пассажир
8	ZULFIYA VOROBEVA	Пассажир
9	ZULFIYA VOLKOVA	Пассажир
10	ZULFIYA VLASOVA	Пассажир
11	ZULFIYA VASILEVA	Пассажир
12	ZULFIYA VASILEVA	Пассажир
13	ZULFIYA VASILEVA	Пассажир
14	ZULFIYA TIKHONOVA	Пассажир

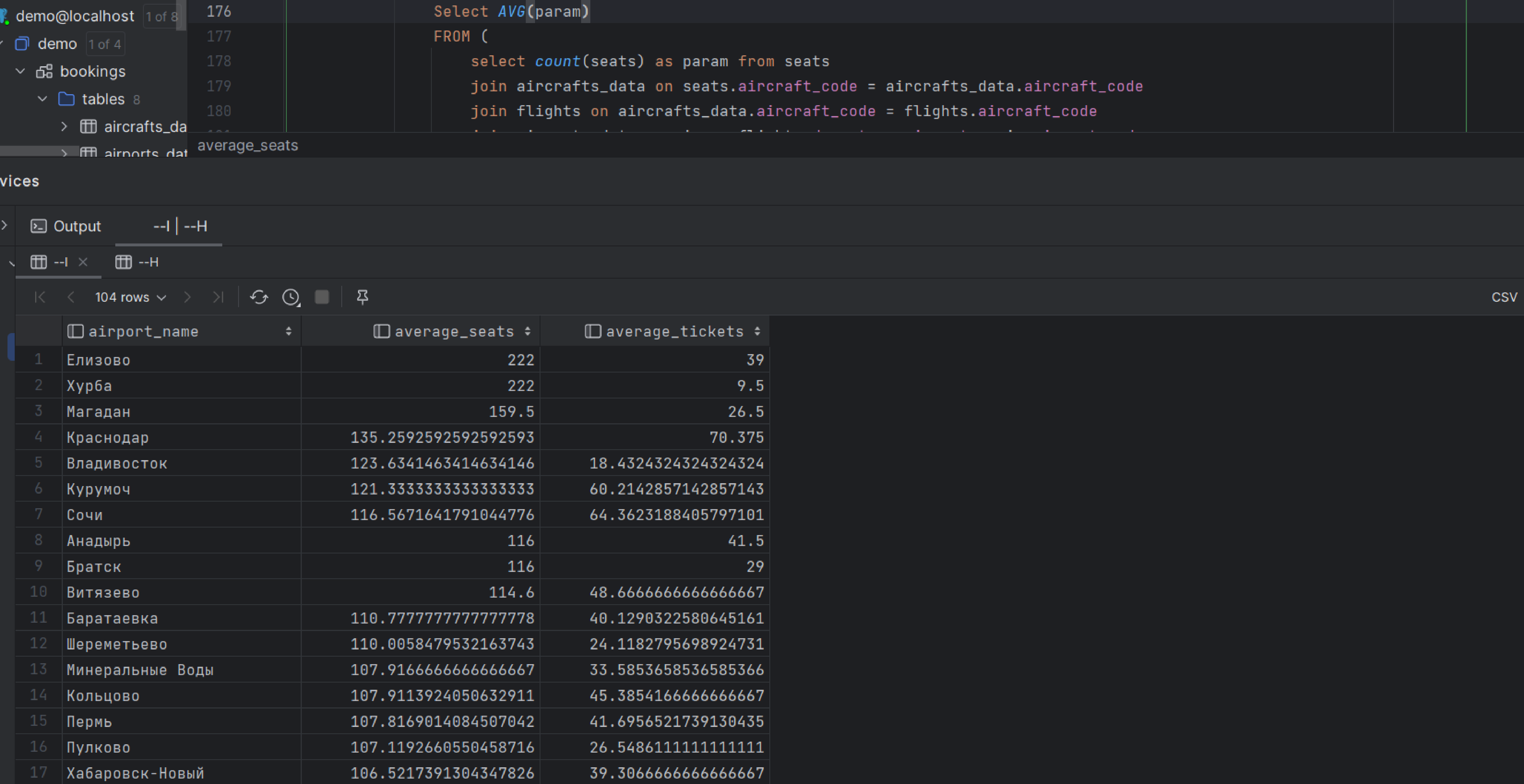


```
--H
select count(*)
from flights
         LEFT JOIN ticket_flights on flights.flight_id = ticket_flights.flight_id
where ticket_flights.flight_id is null;

--I
```

	count
1	10895

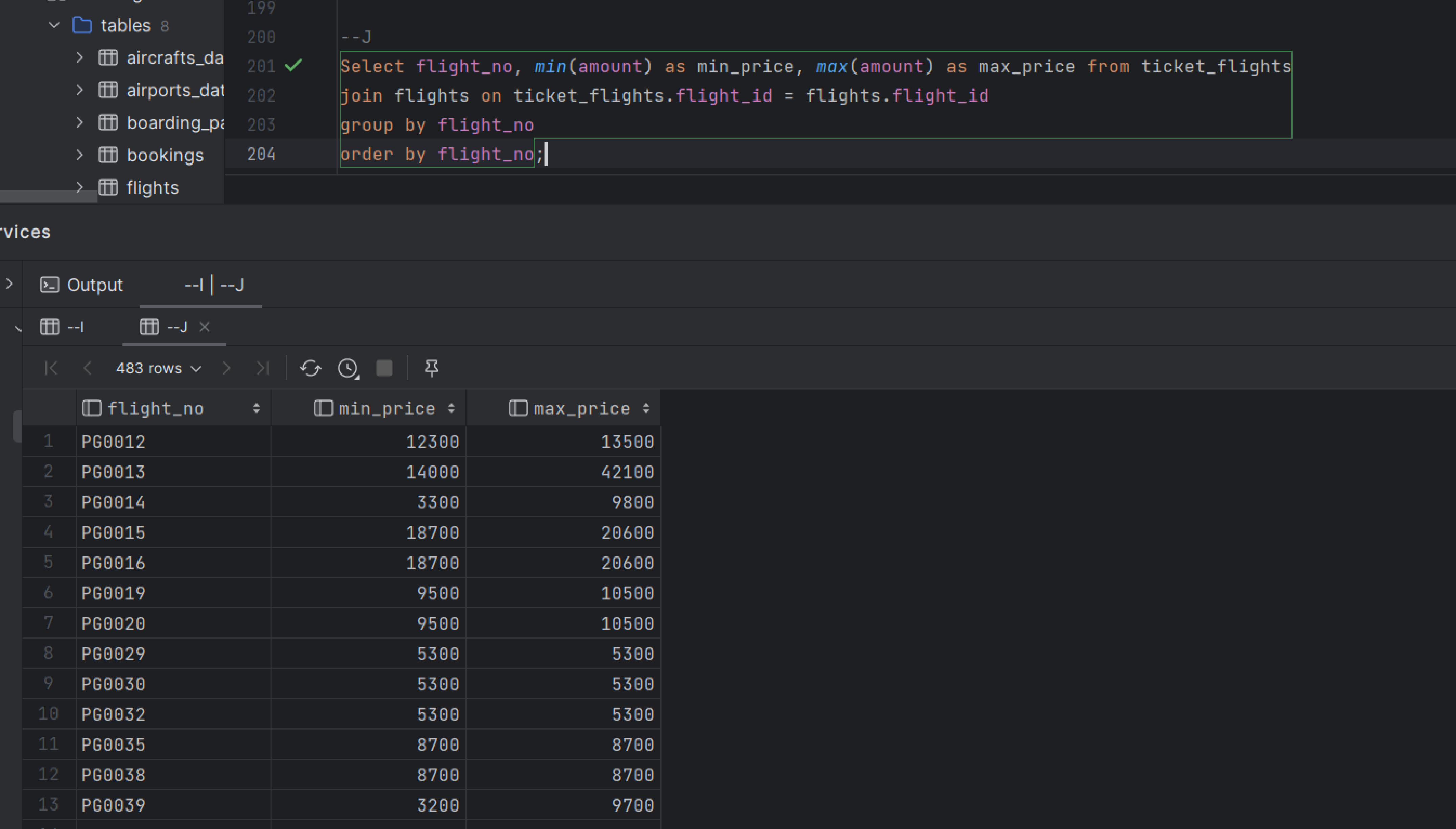


```
--I
select airport_name ->> 'ru' as airport_name,  22 s
            (
                Select AVG(param)
                FROM (
                    select count(seats) as param from seats
                    join aircrafts_data on seats.aircraft_code = aircrafts_data.aircraft_code
                    join flights on aircrafts_data.aircraft_code = flights.aircraft_code
                    join airports_data as air on flights.departure_airport = air.airport_code
                    where air.airport_code = airports_data.airport_code and (select extract(MONTH FROM scheduled_departure)) = 9
                    group by flight_id
                ) as alias
            ) as average_seats,
            (
                Select AVG(param)
                FROM (
                    select count(ticket_flights) as param from ticket_flights
                    join flights on ticket_flights.flight_id = flights.flight_id
                    join airports_data as air on flights.departure_airport = air.airport_code
                    where air.airport_code = airports_data.airport_code and (select extract(MONTH FROM scheduled_departure)) = 9
                    group by flights.flight_id
                ) as alias
            ) as average_tickets
    from airports_data
    group by airport_name ->> 'ru', airport_code
    order by average_seats desc, average_tickets desc;
```



```
            Select AVG(param)
            FROM (
                select count(seats) as param from seats
                join aircrafts_data on seats.aircraft_code = aircrafts_data.aircraft_code
                join flights on aircrafts_data.aircraft_code = flights.aircraft_code
```

	airport_name	average_seats	average_tickets
1	Елизово	222	39
2	Хурба	222	9.5
3	Магадан	159.5	26.5
4	Краснодар	135.2592592592592593	70.375
5	Владивосток	123.6341463414634146	18.4324324324324324
6	Курумоч	121.3333333333333333	60.2142857142857143
7	Сочи	116.5671641791044776	64.3623188405797101
8	Анадырь	116	41.5
9	Братск	116	29
10	Витязево	114.6	48.6666666666666667
11	Баратаевка	110.7777777777777778	40.1290322580645161
12	Шереметьево	110.0058479532163743	24.1182795698924731
13	Минеральные Воды	107.9166666666666667	33.5853658536585366
14	Кольцово	107.9113924050632911	45.3854166666666667
15	Пермь	107.8169014084507042	41.6956521739130435
16	Пулково	107.1192660550458716	26.5486111111111111
17	Хабаровск-Новый	106.5217391304347826	39.3066666666666667



```
--J
Select flight_no, min(amount) as min_price, max(amount) as max_price from ticket_flights
join flights on ticket_flights.flight_id = flights.flight_id
group by flight_no
order by flight_no;
```

	flight_no	min_price	max_price
1	PG0012	12300	13500
2	PG0013	14000	42100
3	PG0014	3300	9800
4	PG0015	18700	20600
5	PG0016	18700	20600
6	PG0019	9500	10500
7	PG0020	9500	10500
8	PG0029	5300	5300
9	PG0030	5300	5300
10	PG0032	5300	5300
11	PG0035	8700	8700
12	PG0038	8700	8700
13	PG0039	3200	9700