A)

```
select airport_code, city
from airports_data
where city ->> 'ru' in ('Казань', 'Москва')
order by airport_code DESC;
```

	airport_code	city
1	VKO	{"en": "Moscow", "ru": "Москва"}
2	SVO	{"en": "Moscow", "ru": "Москва"}
3	KZN	{"en": "Kazan", "ru": "Казань"}
4	DME	{"en": "Moscow", "ru": "Москва"}

B)

```
select CONCAT(airport_code,' ', airport_name, ' ', city, ' ',
coordinates, ' ', timezone) as "полная информация"
from airports
order by "полная информация" ASC;
```

104 rows

	"полная информация"
1	AAQ Витязево Анапа (37.347301483154,45.002101898193) Europe/Moscow
2	ABA Абакан Абакан (91.38500213623047,53.7400016784668) Asia/Krasnoyarsk
3	AER Сочи Сочи (39.956600189209,43.449901580811) Europe/Moscow
4	ARH Талаги Архангельск (40.71670150756836,64.60030364990234) Europe/Moscow
5	ASF Астрахань Астрахань (48.0063018799,46.2832984924) Europe/Samara
6	BAX Барнаул Барнаул (83.53849792480469,53.363800048828125) Asia/Krasnoyarsk
7	BQS Игнатьево Благовещенск (127.41200256347656,50.42539978027344) Asia/Yakutsk
8	BTK Братск Братск (101.697998046875,56.370601654052734) Asia/Irkutsk

C)

```
select departure_airport, count(flight_id)
from flights
where departure_airport in ('KZN', 'DME', 'OVB', 'IKT', 'LED',
'SVO')
group by departure_airport
order by count(flight_id) DESC;
```

6 rows

	departure_airport	count
1	DME	6376
2	SVO	5912
3	LED	3769
4	OVB	2091
5	KZN	934
6	IKT	727

D)

```
select departure_airport, count(flight_id)
from flights
where departure_airport not in ('KZN', 'DME', 'OVB', 'IKT', 'LED',
'SVO')
group by departure_airport
order by count(flight_id) ASC;
```

98 rows

	departure_airport	count
1	USK	34
2	KXK	35
3	PYJ	51
4	NYA	51
5	PKC	52
6	IWA	68
7	GDX	70
8	DYR	70

E)

```
select f.flight_id, f.scheduled_departure, count(tf.ticket_no)
from ticket_flights as tf
join flights as f on tf.flight_id = f.flight_id
group by f.flight_id, f.scheduled_departure having
count(tf.ticket_no) between 27 and 90
order by f.flight_id DESC, f.scheduled_departure DESC,
count(tf.ticket_no) DESC;
```

	flight_id	scheduled_departure	count
1	65420	2017-06-25 06:05:00.000000 +00:00	39
2	65419	2017-06-10 06:05:00.000000 +00:00	46
3	65418	2017-06-11 06:05:00.000000 +00:00	29
4	65417	2017-08-07 06:05:00.000000 +00:00	38
5	65414	2017-07-02 06:05:00.000000 +00:00	44
6	65413	2017-07-26 06:05:00.000000 +00:00	38
7	65407	2017-06-09 06:05:00.000000 +00:00	31
8	65405	2017-07-27 06:05:00.000000 +00:00	30

F)

```
select t.passenger_name as info
from tickets as t
union
select f.departure_airport as info
from flights as f
group by info
order by info DESC;
```

	info
1	ZULFIYA ZOTOVA
2	ZULFIYA ZHURAVLEVA
3	ZULFIYA ZHUKOVA
4	ZULFIYA ZAYCEVA
5	ZULFIYA ZAKHAROVA
6	ZULFIYA YUDINA
7	ZULFIYA YAKOVLEVA
8	ZULFIYA VOROBEVA

G)

```
select t.passenger_name as info, 'Пассажир' as type
from tickets as t
union
select f.departure_airport as info, 'Аэропорт' as type
from flights as f
group by info, type
order by type DESC , info DESC;
```

	info	type
1	ZULFIYA ZOTOVA	Пассажир
2	ZULFIYA ZHURAVLEVA	Пассажир
3	ZULFIYA ZHUKOVA	Пассажир
4	ZULFIYA ZAYCEVA	Пассажир
5	ZULFIYA ZAKHAROVA	Пассажир
6	ZULFIYA YUDINA	Пассажир
7	ZULFIYA YAKOVLEVA	Пассажир
8	ZULFIYA VOROBEVA	Пассажир

H)

```
select count(f.flight_id)
from flights as f
left join ticket_flights tf on f.flight_id = tf.flight_id
where tf.ticket_no is null;
```

	count
1	20490

I)

```
select distinct on (departure_airport) departure_airport,
                                       avg(ad.range) over
(partition by departure_airport)            as avg_range,
                                       avg(count(f.flight_id)) over
(partition by departure_airport) as avg_count
from flights as f
        join ticket_flights tf on f.flight_id = tf.flight_id
        join aircrafts_data as ad on f.aircraft_code =
ad.aircraft_code
where scheduled_departure >= '2017-09-01'
 and scheduled_departure < '2017-10-01'
 and extract(MONTH FROM scheduled_departure) = 9
group by departure_airport, ad.range
order by departure_airport desc, avg_range desc, avg_count desc;
```

	departure_airport	avg_range	avg_count
1	YKS	4700	170
2	VVO	4533.3333333333333333	227.3333333333333333
3	VOZ	2700	142
4	VOG	3000	1729
5	VKT	2700	500
6	VKO	6166.6666666666666667	774

J)

```
select distinct on (flight_no) flight_no,
                               max(amount) over (partition by
flight_no),
                               min(amount) over (partition by
flight_no)
from flights as f
        join ticket_flights as tf on tf.flight_id = f.flight_id
group by flight_no, tf.amount
order by flight_no;
```

	flight_no	max	min
1	PG0012	13500	12300
2	PG0013	42100	14000
3	PG0014	9800	3300
4	PG0015	20600	18700
5	PG0016	20600	18700
6	PG0019	10500	9500
7	PG0020	10500	9500
8	PG0029	5300	5300