Задача A

```sql
SELECT airport_code, coordinates FROM airports_data WHERE city->>'ru' IN
('Казань', '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)

Задача B

```sql
SELECT CONCAT(airport_code, ' ', airport_name, ' ', city, ' ', coordinates, '
', timezone)
    as "полная информация" FROM airports_data ORDER BY "полная информация"
ASC;
```

	"полная информация"
1	AAQ{"en": "Anapa Vityazevo Airport", "ru": "Витязево"}{"en": "Anapa", "ru": "Анапа"}(37.347301483154,45.002101898193)Europe…
2	ABA{"en": "Abakan Airport", "ru": "Абакан"}{"en": "Abakan", "ru": "Абакан"}(91.38500213623047,53.7400016784668)Asia/Krasnoy…
3	AER{"en": "Sochi International Airport", "ru": "Сочи"}{"en": "Sochi", "ru": "Сочи"}(39.956600189209,43.449901580811)Europe/Moscow
4	ARH{"en": "Talagi Airport", "ru": "Талаги"}{"en": "Arkhangelsk", "ru": "Архангельск"}(40.71670150756836,64.60030364990234)E…
5	ASF{"en": "Astrakhan Airport", "ru": "Астрахань"}{"en": "Astrakhan", "ru": "Астрахань"}(48.0063018799,46.2832984924)Europe/…
6	BAX{"en": "Barnaul Airport", "ru": "Барнаул"}{"en": "Barnaul", "ru": "Барнаул"}(83.53849792480469,53.363800048828125)Asia/K…
7	BQS{"en": "Ignatyevo Airport", "ru": "Игнатьево"}{"en": "Blagoveschensk", "ru": "Благовещенск"}(127.41200256347656,50.42539…
8	BTK{"en": "Bratsk Airport", "ru": "Братск"}{"en": "Bratsk", "ru": "Братск"}(101.697998046875,56.370601654052734)Asia/Irkutsk
9	BZK{"en": "Bryansk Airport", "ru": "Брянск"}{"en": "Bryansk", "ru": "Брянск"}(34.176399231,53.214199066199996)Europe/Moscow
96	UUA{"en": "Bugulma Airport", "ru": "Бугульма"}{"en": "Bugulma", "ru": "Бугульма"}(52.801700592041016,54.63999938964844)Euro…
97	UUD{"en": "Ulan-Ude Airport (Mukhino)", "ru": "Байкал"}{"en": "Ulan-ude", "ru": "Улан-Удэ"}(107.43800354003906,51.807800292…
98	UUS{"en": "Yuzhno-Sakhalinsk Airport", "ru": "Хомутово"}{"en": "Yuzhno-Sakhalinsk", "ru": "Южно-Сахалинск"}(142.71800231933…
99	VKO{"en": "Vnukovo International Airport", "ru": "Внуково"}{"en": "Moscow", "ru": "Москва"}(37.2615013123,55.5914993286)Eur…
100	VKT{"en": "Vorkuta Airport", "ru": "Воркута"}{"en": "Vorkuta", "ru": "Воркута"}(63.993099212646484,67.48860168457031)Europe…
101	VOG{"en": "Volgograd International Airport", "ru": "Гумрак"}{"en": "Volgograd", "ru": "Волгоград"}(44.34550094604492,48.782…
102	VOZ{"en": "Voronezh International Airport", "ru": "Воронеж"}{"en": "Voronezh", "ru": "Воронеж"}(39.22959899902344,51.814201…
103	VVO{"en": "Vladivostok International Airport", "ru": "Владивосток"}{"en": "Vladivostok", "ru": "Владивосток"}(132.147994995…
104	YKS{"en": "Yakutsk Airport", "ru": "Якутск"}{"en": "Yakutsk", "ru": "Якутск"}(129.77099609375,62.093299865722656)Asia/Yakut…

Задача C

```sql
SELECT departure_airport, COUNT(departure_airport) FROM flights WHERE
departure_airport IN ('KZN', 'DME', 'OVB', 'IKT', 'LED', 'SVO')
GROUP BY departure_airport
ORDER BY COUNT(departure_airport) DESC;
```

	departure_airport	count
1	DME	3217
2	SVO	2981
3	LED	1900
4	OVB	1055
5	KZN	471
6	IKT	366

Задача D

```sql
SELECT departure_airport, COUNT(departure_airport) FROM flights WHERE
departure_airport NOT IN ('KZN', 'DME', 'OVB', 'IKT', 'LED', 'SVO')
GROUP BY departure_airport
ORDER BY COUNT(departure_airport);
```

	departure_airport	count
1	USK	18
2	KXK	18
3	PKC	26
4	PYJ	27
5	NYA	27
6	IWA	34
7	DYR	36
8	GDX	36
9	KYZ	43
10	LPK	43
90	SGC	531
91	OVS	549
92	AER	584
93	BZK	610
94	ROV	617
95	PEE	619
96	SVX	689
97	KJA	707
98	VKO	1719

Задача E

```sql
SELECT f.flight_no,
       f.scheduled_departure::date as date,
       t.number_of_passengers
FROM flights AS f
INNER JOIN (
    SELECT flight_id, COUNT(flight_id) as number_of_passengers
    FROM ticket_flights
    GROUP BY flight_id)
AS t ON f.flight_id = t.flight_id
WHERE t.number_of_passengers BETWEEN 27 AND 90
ORDER BY f.flight_no DESC, date DESC, t.number_of_passengers DESC;
```

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

9106	PG0014	2017-07-22	34
9107	PG0014	2017-07-21	43
9108	PG0014	2017-07-20	38
9109	PG0014	2017-07-19	39
9110	PG0014	2017-07-18	38
9111	PG0014	2017-07-17	36
9112	PG0014	2017-07-16	41
9113	PG0013	2017-09-13	43
9114	PG0013	2017-09-12	53
9115	PG0013	2017-09-11	50
9116	PG0013	2017-09-10	68

Задача F

```
SELECT passenger_name AS name FROM tickets
UNION
SELECT airport_name->>'ru' AS name FROM airports_data
ORDER BY name DESC;
```

	name
1	Якутск
2	Элиста
3	Шереметьево
4	Чульман
5	Чита
6	Череповец
7	Челябинск
8	Чебоксары
9	Хурба

100	Баратаевка
101	Байкал
102	Астрахань
103	Анадырь
104	Абакан
105	ZULFIYA ZOTOVA
106	ZULFIYA ZHURAVLEVA
107	ZULFIYA ZAYCEVA
108	ZULFIYA ZAKHAROVA

22317	ADELINA DENISOVA
22318	ADELINA CHERNOVA
22319	ADELINA BELYAEVA
22320	ADELINA ANDREEVA
22321	ADELINA ALEKSEEVA
22322	ADELINA ALEKSANDROVA
22323	ADELINA AKIMOVA
22324	ADELINA AFANASEVA

Задача G

```
SELECT passenger_name AS name, 'пассажир' AS type FROM tickets
UNION
SELECT airport_name->>'ru' AS name, 'аэропорт' AS type FROM airports_data
ORDER BY type DESC, name DESC;
```

	name	type
1	ZULFIYA ZOTOVA	пассажир
2	ZULFIYA ZHURAVLEVA	пассажир
3	ZULFIYA ZAYCEVA	пассажир
4	ZULFIYA ZAKHAROVA	пассажир
5	ZULFIYA VOROBEVA	пассажир
6	ZULFIYA VOLKOVA	пассажир
7	ZULFIYA VLASOVA	пассажир
8	ZULFIYA VASILEVA	пассажир
9	ZULFIYA TIKHONOVA	пассажир
10	ZULFIYA TARASOVA	пассажир
11	ZULFIYA SOROKINA	пассажир
12	ZULFIYA SOKOLOVA	пассажир
13	ZULFIYA SMIRNOVA	пассажир

22214	ADELINA CHERNOVA	пассажир
22215	ADELINA BELYAEVA	пассажир
22216	ADELINA ANDREEVA	пассажир
22217	ADELINA ALEKSEEVA	пассажир
22218	ADELINA ALEKSANDROVA	пассажир
22219	ADELINA AKIMOVA	пассажир
22220	ADELINA AFANASEVA	пассажир
22221	Якутск	аэропорт
22222	Элиста	аэропорт
22223	Шереметьево	аэропорт
22224	Чульман	аэропорт
22225	Чита	аэропорт

22319	Барнаул	аэропорт
22320	Баратаевка	аэропорт
22321	Байкал	аэропорт
22322	Астрахань	аэропорт
22323	Анадырь	аэропорт
22324	Абакан	аэропорт

Задача H

```sql
SELECT COUNT(*) as flights_with_no_passengers_amount
FROM flights
LEFT JOIN ticket_flights
ON flights.flight_id = ticket_flights.flight_id
WHERE ticket_no IS NULL;
```

	flights_with_no_passengers_amount
1	10895

Задача I

```sql
SELECT flights.departure_airport AS airport, COUNT(ticket_flights.ticket_no)
/ COUNT(DISTINCT flights.flight_id) AS avg_tickets_amount
FROM flights
LEFT JOIN ticket_flights
ON flights.flight_id = ticket_flights.flight_id
WHERE flights.scheduled_departure BETWEEN '2017-08-01 00:00:00.000000 +00:00'
AND '2017-08-31 23:59:59.999999 +00:00'
GROUP BY flights.departure_airport;
```

	airport	avg_tickets_amount
1	AAQ	93
2	ABA	10
3	AER	70
4	ARH	20
5	ASF	23

100	VKT		19
101	VOG		61
102	VOZ		15
103	VVO		41
104	YKS		19

Задача J

```sql
SELECT flights.flight_no, MIN(ticket_flights.amount) AS cheapest,
MAX(ticket_flights.amount) AS most_expensive
FROM flights
INNER JOIN ticket_flights
ON flights.flight_id = ticket_flights.flight_id
GROUP BY flights.flight_no;
```

	flight_no	cheapest	most_expensive
1	PG0012	12300	13500
2	PG0013	14000	42100
3	PG0014	3300	9800
4	PG0015	18700	20600
5	PG0016	18700	20600
479	PG0706	48800	146400
480	PG0707	5200	15700
481	PG0708	5200	15700
482	PG0709	50100	150400
483	PG0710	50100	150400