

## Контрольная работа 2 Яровой Кирилл 11-210

1.

```
SELECT airport_name
FROM (
    SELECT airport_name->>'ru' AS airport_name FROM airports_data
    EXCEPT
    SELECT a.airport_name->>'ru' FROM airports_data a
    JOIN airports_data c ON a.airport_name->>'ru' = c.city->>'ru'
) AS subquery
ORDER BY airport_name;
```

airport_name
Байкал
Баратаевка
Бегишево
Беслан
Бесовец
Богашёво
Витязево

2.

```
SELECT airport_name
FROM (
    SELECT airport_name->>'ru' AS airport_name FROM airports_data
    INTERSECT
    SELECT city->>'ru' FROM airports_data
) AS subquery
ORDER BY airport_name;
```

airport_name
Абакан
Анадырь
Астрахань
Барнаул
Белгород
Белоярский
Братск
Брянск
Бугульма
Владивосток
Воркута
Воронеж
Геленджик
Горно-Алтайск
Грозный
Ижевск
Иркутск
Йошкар-Ола

3.

```
SELECT ac.model, COUNT(f.flight_id) AS flight_count
FROM flights f
JOIN aircrafts ac ON f.aircraft_code = ac.aircraft_code
WHERE f.departure_airport = 'KZN'
      AND EXTRACT(MONTH FROM f.scheduled_departure) = 8
      AND EXTRACT(YEAR FROM f.scheduled_departure) = 2017
GROUP BY ac.model
HAVING COUNT(f.flight_id) > 50
ORDER BY flight_count DESC, ac.model;
```

```
study/oradb4 [main] » psql -U postgres -p 5432 --host 0.0.0.0 -d demo -f cw2.sql
      model | flight_count
-----+-----
 Сессна 208 Караван |          62
 Сухой Суперджет-100 |          62
 Бомбардье CRJ-200 |          54
(3 rows)
```

4.

```
SELECT *
FROM flights f
INNER JOIN aircrafts ac ON f.aircraft_code = ac.aircraft_code
INNER JOIN airports dep_airport ON f.departure_airport = dep_airport.airport_code
INNER JOIN airports arr_airport ON f.arrival_airport = arr_airport.airport_code
INNER JOIN ticket_flights tf ON f.flight_id = tf.flight_id
INNER JOIN tickets t ON tf.ticket_no = t.ticket_no
INNER JOIN bookings b ON t.book_ref = b.book_ref
INNER JOIN boarding_passes bp ON t.ticket_no = bp.ticket_no AND f.flight_id =
bp.flight_id
INNER JOIN seats s ON ac.aircraft_code = s.aircraft_code;
```

5.

```
SELECT f.flight_id, f.flight_no
FROM flights f
RIGHT JOIN ticket_flights tf ON f.flight_id = tf.flight_id
WHERE tf.ticket_no IS NULL;
```

```
study/oradb4 [main] » psql -U postgres -p 5432 --host 0.0.0.0 -d demo -f cw2.sql
 flight_id | flight_no
-----+-----
(0 rows)
```

6.

```
SELECT f.flight_id, f.flight_no, SUM(tf.amount) AS total_revenue
FROM flights f
JOIN ticket_flights tf ON f.flight_id = tf.flight_id
WHERE EXTRACT(MONTH FROM f.scheduled_departure) = 8
      AND EXTRACT(YEAR FROM f.scheduled_departure) = 2017
GROUP BY f.flight_id
ORDER BY total_revenue DESC;
```

flight_id	flight_no	total_revenue
2354	PG0208	17146600.00
26212	PG0209	17023600.00
2364	PG0208	16962100.00
2330	PG0208	16900600.00
2341	PG0208	16839100.00
2369	PG0208	16777600.00
2344	PG0208	16777600.00
26162	PG0209	16593100.00
2332	PG0208	16593100.00
2325	PG0208	16593100.00
2359	PG0208	16586900.00
26173	PG0209	16531600.00
26201	PG0209	16531600.00
2322	PG0208	16470100.00
26168	PG0209	16470100.00
2366	PG0208	16470100.00
2351	PG0208	16463900.00
2338	PG0208	16463900.00

7.

```
SELECT
    f.flight_no,
    SUM(CASE WHEN EXTRACT(MONTH FROM f.scheduled_departure) = 8 THEN tf.amount ELSE
0 END) AS august,
    SUM(CASE WHEN EXTRACT(MONTH FROM f.scheduled_departure) = 9 THEN tf.amount ELSE
0 END) AS september
FROM
    flights f
JOIN
    ticket_flights tf ON f.flight_id = tf.flight_id
WHERE
    EXTRACT(YEAR FROM f.scheduled_departure) = 2017
    AND (EXTRACT(MONTH FROM f.scheduled_departure) = 8 OR EXTRACT(MONTH FROM
f.scheduled_departure) = 9)
GROUP BY
    f.flight_no
ORDER BY
```

```
august DESC, september DESC, f.flight_no;
```

flight_no	august	september
PG0208	490338600.00	51378300.00
PG0209	480332200.00	89546000.00
PG0222	356857100.00	38532200.00
PG0223	348201000.00	63801500.00
PG0357	331505300.00	83622200.00
PG0356	307950500.00	50770600.00
PG0277	294280000.00	39832800.00
PG0278	293283200.00	53440800.00
PG0199	272320100.00	68006900.00
PG0198	264368400.00	20275600.00
PG0225	183613400.00	23714900.00
PG0226	178342500.00	33120000.00
PG0013	167781900.00	32787600.00
PG0224	167485600.00	17042200.00
PG0498	153491600.00	24960000.00
PG0703	152081000.00	17161600.00
PG0499	150695900.00	34378100.00
PG0704	147239900.00	25894400.00

8.

```
SELECT passenger_name
FROM tickets
WHERE LOWER(passenger_name) LIKE LOWER('%iRiNa%')
GROUP BY passenger_name;
```

passenger_name
IRINA ABRAMOVA
IRINA AFANASEVA
IRINA AKIMOVA
IRINA ALEKSANDROVA
IRINA ALEKSEEVA
IRINA ANDREEVA
IRINA ANISIMOVA
IRINA ANTONOVA
IRINA ARKHIPOVA
IRINA BARANOVA
IRINA BELOVA
IRINA BELYAEVA
IRINA BOGDANOVA
IRINA BORISOVA
IRINA CHERNOVA
IRINA DANILOVA
IRINA DAVYDOVA
IRINA DENISOVA

9.

```
SELECT
    ac.model,
    SUM(CASE WHEN EXTRACT(MONTH FROM f.scheduled_departure) = 8 THEN tf.amount ELSE
0 END) AS revenue_august,
    SUM(CASE WHEN EXTRACT(MONTH FROM f.scheduled_departure) = 9 THEN tf.amount ELSE
0 END) AS revenue_september,
    COUNT(CASE WHEN EXTRACT(MONTH FROM f.scheduled_departure) = 8 THEN tf.ticket_no
END) AS passengers_august,
    COUNT(CASE WHEN EXTRACT(MONTH FROM f.scheduled_departure) = 9 THEN tf.ticket_no
END) AS passengers_september
FROM
    flights f
JOIN
    ticket_flights tf ON f.flight_id = tf.flight_id
JOIN
    aircrafts ac ON f.aircraft_code = ac.aircraft_code
WHERE
    EXTRACT(YEAR FROM f.scheduled_departure) = 2017
    AND (EXTRACT(MONTH FROM f.scheduled_departure) IN (8, 9))
GROUP BY
    ac.model;
```

```
psql:19:19: ERROR: canceling statement due to user request
study/oradb4 [main] » psql -U postgres -p 5432 --host 0.0.0.0 -d demo -f cw2.sql
    model | revenue_august | revenue_september | passengers_august | passengers_september
-----|-----|-----|-----|-----
Аэробус А319-100 | 1773787300.00 | 287051800.00 | 34574 | 5688
Аэробус А321-200 | 1050808500.00 | 201035000.00 | 67502 | 14137
Боинг 737-300 | 926462000.00 | 160612800.00 | 55811 | 9583
Боинг 767-300 | 2824723100.00 | 495152100.00 | 80623 | 14037
Боинг 777-300 | 2233327100.00 | 341779800.00 | 93951 | 14431
Бомбардье CRJ-200 | 1300530100.00 | 211844700.00 | 98171 | 16074
Сессна 208 Караван | 62590400.00 | 10499000.00 | 9545 | 1612
Сухой Суперджет-100 | 3337466100.00 | 566067800.00 | 237785 | 41265
(8 rows)
```