```
101     -- ex.1
102
103  ✓  select airport_name ->> 'ru' as name from airports_data
104     EXCEPT
105     SELECT city ->> 'ru' FROM airports_data
106     ORDER BY name;
107
```

Services

Output | ⊞ name ✕

|< < 38 rows ∨ > >|

	name
27	Стригино
28	Талаги
29	Толмачёво
30	Туношна
31	Уйташ
32	Ульяновск-Восточный
33	Хабаровск-Новый
34	Хомутово
35	Храброво
36	Хурба
37	Чульман
38	Шереметьево

```
109     💡
110  ✓  select airport_name ->> 'ru' as name from airports_data
111     INTERSECT
112     SELECT city ->> 'ru' FROM airports_data
113     ORDER BY name;
114
```

Services

Output | ⊞ name ✕

|< < 66 rows ∨ > >|

	name
53	Сургут
54	Сыктывкар
55	Усинск
56	Усть-Илимск
57	Усть-Кут
58	Уфа
59	Ухта
60	Ханты-Мансийск
61	Чебоксары
62	Челябинск
63	Череповец
64	Чита
65	Элиста
66	Якутск

```sql
-- ex.3
SELECT aircraft_code AS aircraft_type,
       COUNT(*) AS flight_count
FROM flights
WHERE departure_airport = 'KZN'
      AND EXTRACT(MONTH FROM scheduled_departure) = 8
      AND EXTRACT(YEAR FROM scheduled_departure) = 2017
GROUP BY aircraft_code
HAVING COUNT(*) > 50
ORDER BY flight_count DESC, aircraft_type ASC;
```

Services

Output   Result 34 ×

3 rows

	aircraft_type	flight_count
1	CN1	62
2	SU9	62
3	CR2	54

```sql
-- ex.4
select * from airports_data
inner join bookings.flights on airports_data.airport_code = flights.arrival_airport
inner join bookings.ticket_flights on flights.flight_id = ticket_flights.flight_id
inner join bookings.boarding_passes on ticket_flights.flight_id = boarding_passes.flight_id
inner join bookings.tickets on tickets.ticket_no = ticket_flights.ticket_no
inner join boo                              tickets.book_ref
inner join boo                              ft_code = aircrafts_data.aircraft_code
inner join boo                              _code = seats.aircraft_code;
-- Airlines demo database schema
```

Data Source: demo@localhost
Database: demo
Schema: bookings

Services

Output   Result 35 ×

1-500 ∨ of 501+

	airport_code	airport_name	city	coordinates	timezone	flights.flight_id	flight_no	scheduled_de
1	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
2	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
3	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
4	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
5	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
6	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
7	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
8	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
9	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
10	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
11	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
12	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
13	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
14	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
15	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
16	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
17	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
18	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
19	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:
20	SVO	{"en": "Sheremetyevo International Airport", "ru": "Шереметьево"}	{"en": "Moscow", "ru": "Москва"}	(37.4146,55.972599)	Europe/Moscow	27480	PG0548	2017-07-26 05:

```
138    - 💡 ex.5
139
140 ✓  SELECT count(*) as empty_flights
141    FROM ticket_flights tf
142    RIGHT JOIN flights f ON f.flight_id = tf.flight_id
143    WHERE tf.ticket_no is null;
```

Services

Tx. ›   ▷ Output   ⊞ empty_flights:bigint ×

|< < 1 row ∨ > >| ↻ ◷ ■   ⚲

	empty_flights ⇕
1	20490

demo@localhost 1 of 4
demo 1 of 4
bookings
tables 8
views 4
routines 2
sequences 1
Database Objects
Server Objects

```
144
145    -- ex.6
146    💡
147 ✓  select sum(tf.amount) as august, f.flight_no
148    from ticket_flights tf
149    join flights f on f.flight_id = tf.flight_id
150    WHERE EXTRACT(MONTH FROM scheduled_departure) = 8
151        AND EXTRACT(YEAR FROM scheduled_departure) = 2017
152    group by f.flight_no
153    order by sum(tf.amount) desc ;
154    --
155    -- SELECT f.flight_id,
156    --        f.flight_no,
157    --        f.scheduled_departure,
158    --        COALESCE(SUM(t.amount), 0) AS total_revenue
159    -- FROM flights f
160    -- LEFT JOIN ticket_flights t ON f.flight_id = t.flight_id
161    -- WHERE EXTRACT(MONTH FROM f.scheduled_departure) = 8
162    --   AND EXTRACT(YEAR FROM f.scheduled_departure) = 2017
163    -- GROUP BY f.flight_id, f.flight_no, f.scheduled_departure
164    -- ORDER BY total_revenue DESC;
```

Services

Tx.   Output   ⊞ Result 37 ✕

472 rows

	august	flight_no
462	418000	PG0077
463	349800	PG0030
464	334400	PG0352
465	264000	PG0535
466	206800	PG0354
467	198000	PG0079
468	168000	PG0097
469	123200	PG0098
470	118800	PG0343
471	72400	PG0685
472	6400	PG0590

```sql
-- ex.7

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

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) IN (8, 9)
GROUP BY
    f.flight_no
ORDER BY
    august DESC, september desc, flight_no ASC;
```

	flight_no	august	september
472	PG0590	6400	0
473	PG0686	0	546600
474	PG0567	0	381100
475	PG0122	0	374200
476	PG0344	0	118800
477	PG0439	0	31200
478	PG0385	0	20500
479	PG0400	0	17700
480	PG0263	0	6600
481	PG0537	0	3300
482	PG0295	0	3000

482 rows

```
197    -- ex.8
198    💡
199 ✓  SELECT DISTINCT passenger_name
200    FROM tickets
201    WHERE passenger_name ILIKE '%iRiNa%';
```

Services

▶ Output   ⊞ demo.bookings.tickets ✕

|◁ ◁ 113 rows ∨ ▷ ▷| ↻ ⊙ ◼ + − ↺ ◔ ⬆ Tx: Auto ∨ DDL 📌

	passenger_name ⇕
103	IRINA BOGDANOVA
104	IRINA TARASOVA
105	IRINA KOLESNIKOVA
106	IRINA SAVELEVA
107	IRINA TITOVA
108	IRINA KRASNOVA
109	IRINA KARPOVA
110	IRINA LOGINOVA
111	IRINA GAVRILOVA
112	IRINA DAVYDOVA
113	IRINA KOROLEVA