

1)

The screenshot shows a SQL playground interface. The query editor at the top contains the following SQL code:

```
1 ✓ select airport_name ->> 'ru' as name from airports_data
2 except
3 SELECT city ->> 'ru' from airports_data
4 ORDER BY name;
```

Below the query editor, the 'Output' tab is active, displaying a table with 38 rows. The table has a single column named 'name'. The first 9 rows are visible:

	name
1	Байкал
2	Баратаевка
3	Бегишево
4	Беслан
5	Бесовец
6	Богашёво
7	Витязево
8	Внуково
9	Гумрак

2)

The screenshot shows a SQL playground interface. The query editor at the top contains the following SQL code:

```
5
6 ✓ select airport_name ->> 'ru' as name from airports_data
7 intersect
8 SELECT city ->> 'ru' from airports_data
9 ORDER BY name;
```

Below the query editor, the 'Output' tab is active, displaying a table with 66 rows. The table has a single column named 'name'. The first 9 rows are visible:

	name
1	Абакан
2	Анадырь
3	Астрахань
4	Барнаул
5	Белгород
6	Белоярский
7	Братск
8	Брянск
9	Бугульма

A 'Last Page' button is visible on the right side of the output table.

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;

```

aircraft_type	flight_count
CN1	62
SU9	62
CR2	54

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 bookings.bookings on bookings.book_ref = tickets.book_ref
inner join bookings.aircrafts_data on flights.aircraft_code = aircrafts_data.aircraft_code
inner join bookings.seats on aircrafts_data.aircraft_code = seats.aircraft_code;

```

airport_code	airport_name	city	coordinates
HMA	{'en': 'Khanty Mansiysk Airport', 'ru': 'Ханты-Мансийск'}	{'en': 'Khanty-Mansiysk', 'ru': 'Ханты-Мансийск'}	(69.08609771728516, 61.0284996)
HMA	{'en': 'Khanty Mansiysk Airport', 'ru': 'Ханты-Мансийск'}	{'en': 'Khanty-Mansiysk', 'ru': 'Ханты-Мансийск'}	(69.08609771728516, 61.0284996)
HMA	{'en': 'Khanty Mansiysk Airport', 'ru': 'Ханты-Мансийск'}	{'en': 'Khanty-Mansiysk', 'ru': 'Ханты-Мансийск'}	(69.08609771728516, 61.0284996)
HMA	{'en': 'Khanty Mansiysk Airport', 'ru': 'Ханты-Мансийск'}	{'en': 'Khanty-Mansiysk', 'ru': 'Ханты-Мансийск'}	(69.08609771728516, 61.0284996)
HMA	{'en': 'Khanty Mansiysk Airport', 'ru': 'Ханты-Мансийск'}	{'en': 'Khanty-Mansiysk', 'ru': 'Ханты-Мансийск'}	(69.08609771728516, 61.0284996)
HMA	{'en': 'Khanty Mansiysk Airport', 'ru': 'Ханты-Мансийск'}	{'en': 'Khanty-Mansiysk', 'ru': 'Ханты-Мансийск'}	(69.08609771728516, 61.0284996)
HMA	{'en': 'Khanty Mansiysk Airport', 'ru': 'Ханты-Мансийск'}	{'en': 'Khanty-Mansiysk', 'ru': 'Ханты-Мансийск'}	(69.08609771728516, 61.0284996)
HMA	{'en': 'Khanty Mansiysk Airport', 'ru': 'Ханты-Мансийск'}	{'en': 'Khanty-Mansiysk', 'ru': 'Ханты-Мансийск'}	(69.08609771728516, 61.0284996)

5)

```

select count(*) from bookings.ticket_flights
right join flights on flights.flight_id = ticket_flights.flight_id
WHERE ticket_flights.flight_id is null;

```

count
10895

6)

```
--6)
select flights.flight_no, sum(ticket_flights.amount) as summa from flights
join ticket_flights on flights.flight_id = ticket_flights.flight_id
where extract(month from scheduled_departure) = 8 and extract(year from scheduled_departure) = 2017
group by flights.flight_no
order by summa desc ;
```

	flight_no	summa
1	P60208	490338600
2	P60209	480332200
3	P60222	356857100
4	P60223	348201000
5	P60357	331505300
6	P60356	307950500
7	P60277	294280000
8	P60278	293283200
9	P60199	272320100
10	P60198	264368400
11	P60225	183613400
12	P60226	178342500
13	P60013	167781900
14	P60224	167485600
15	P60498	153491600
16	P60703	152081000
17	P60499	150695900
18	P60704	147239900
19	P60547	136151100
20	P60548	135162300
21	P60168	124199400

7)

```
--7)
select flight_no,
       sum(case when extract(month from scheduled_departure) = 8 then amount else 0 end) as august,
       sum(case when extract(month from scheduled_departure) = 9 then amount else 0 end) as september
from flights
join ticket_flights on flights.flight_id = ticket_flights.flight_id
where extract(year from scheduled_departure) = 2017
       and extract(month from scheduled_departure) in (8, 9)
group by flight_no
order by august desc ,september desc, flight_no asc;
```

	flight_no	august	september
1	P60208	490338600	51378300
2	P60209	480332200	89546000
3	P60222	356857100	38532200
4	P60223	348201000	63801500
5	P60357	331505300	83622200
6	P60356	307950500	50770600
7	P60277	294280000	39832800
8	P60278	293283200	53440800
9	P60199	272320100	68006900
10	P60198	264368400	20275600
11	P60225	183613400	23714900
12	P60226	178342500	33120000
13	P60013	167781900	32787600
14	P60224	167485600	17042200
15	P60498	153491600	24960000
16	P60703	152081000	17161600
17	P60499	150695900	34378100
18	P60704	147239900	25801100

8)

```
--8)
✓ SELECT DISTINCT passenger_name
  from tickets
 WHERE passenger_name ILIKE '%iRiNa%';
```

Output demo.bookings.tickets x

113 rows

	passenger_name
1	IRINA NOVIKOVA
2	IRINA ZHUKOVA
3	IRINA SMIRNOVA
4	IRINA MIKHAYLOVA
5	IRINA ISAEVA
6	IRINA FILIPPOVA
7	IRINA LAZAREVA
8	IRINA KUZMINA
9	IRINA TIKHONOVA
10	IRINA MOROZOVA
11	IRINA ILINA
12	IRINA MATVEEVA
13	IRINA ERMAKOVA
14	IRINA SOKOLOVA
15	IRINA MEDVEDEVA
16	IRINA ABRAMOVA
17	IRINA MOISEEVA
18	IRINA KAZAKOVA
19	IRINA GERASIMOVA
20	IRINA ORLOVA
21	IRINA LUKYANOVA
22	IRINA NIKITINA
23	IRINA AKIMOVA
24	IRINA VOLKOVA
25	IRINA BELYAEVA
26	IRINA YAKOVLEVA
27	IRINA KOVALEVA