

Database Explorer

console [demo@localhost] x

```
1 SELECT airport_code, coordinates
2 FROM airports
3 WHERE city IN ('Казань', 'Москва')
4 ORDER BY airport_code DESC;
```

demo: bookings, public < console 1 v

aircrafts

flights_v (Flights (unknown) *)

flight_id	flight_no	scheduled_departure	scheduled_departure_local	scheduled_arrival	scheduled_arrival_local	scheduled_duration	departure_airport	departure_airport_name	departure_city	arrival_airport	arrival_airport_name	arrival_city	status	aircraft_code	actual_departure	actual_departure_local	actual_arrival	actual_arrival_local	actual_duration
integer	char(10)	timestamp with time zone	timestamp with time zone	timestamp with time zone	timestamp with time zone	interval	char(3)	text	text	char(3)	text	text	varchar(20)	char(3)	timestamp with time zone	timestamp with time zone	timestamp with time zone	timestamp with time zone	interval

Services

Database

demo@localhost

console 9 ms

console 1 259 ms

console 259 ms

demo.bookings.airports_data | demo.bookings.airports

4 rows

airport_code	coordinates
VKO	(37.2615013123, 55.5914993286)
SVO	(37.4146, 55.972599)
KZN	(49.278701782227, 55.606201171875)
DME	(37.90629959106445, 55.4087982177344)

Database Explorer

console [demo@localhost] x hw7.sql

```
1 SELECT CONCAT_WS(' ', airport_code, airport_name, city, coordinates, timezone) AS full_info
2 FROM airports
3 ORDER BY full_info;
```

demo: bookings, public < console 1 v

aircrafts

routes (Routes) (*)

flight_no	departure_airport	departure_airport_name	departure_city	arrival_airport	arrival_airport_name	arrival_city	duration	days_of_week
char(10)	char(3)	text	text	char(3)	text	text	interval	text

aircrafts

aircrafts (Aircrafts) (*)

aircraft_code	status	actual_departure	actual_departure_local	actual_arrival	actual_arrival_local	actual_duration
char(3)	char(3)	timestamp with time zone	timestamp with time zone	timestamp with time zone	timestamp with time zone	interval

Services

Database

demo@localhost

console 9 ms

console 1 80 ms

console 80 ms

full_info: text

104 rows

full_info
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, Талги, Архангельск, (40.71670150756836, 64.00030364990234), Europe/Moscow
5 ASF, Астрахань, Астрахань, (48.00630187799, 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
9 BZN, Брянск, Брянск, (34.176599231, 53.214199060199999), Europe/Moscow
10 CEE, Череповец, Череповец, (38.015800476100004, 59.275001532), Europe/Moscow
11 CEN, Челябинск, Челябинск, (61.5033, 55.305801), Asia/Yekaterinburg
12 CNV, Чурьман, Нерюнги, (124.91600146684, 56.911898468018), Asia/Yakutsk
13 CSV, Чебоксары, Чебоксары, (47.3473014831543, 56.090301513671875), Europe/Moscow
14 DME, Домодедово, Москва, (37.90629959106445, 55.4087982177344), Europe/Moscow
15 DYE, Анадырь, Анадырь, (177.74099731445312, 64.73490142822266), Asia/Anadyr

Database Consoles > demo@localhost > console [demo@localhost]

3:20 CRLF UTF-8 4 spaces

Database Explorer

console [demo@localhost] x hw7.sql

```

1 SELECT airport_name, count(*) as count_flights
2 FROM airports
3 JOIN flights_v on airports.airport_code = flights_v.departure_airport
4 WHERE airport_code IN ('KZN', 'DME', 'OVB', 'IKT', 'LED', 'SV0')
5 GROUP BY airport_name
6 ORDER BY count_flights desc;
7

```

Output

Result 6 x

airport_name	count_flights
Домодедово	6376
Верный	5912
Пущино	3709
Томск	2991
Казань	934
Иркутск	727

Database Consoles > demo@localhost > console [demo@localhost]

Database Explorer

console [demo@localhost] x hw7.sql

```

1 SELECT airport_name, count(*) as count_flights
2 FROM airports
3 JOIN flights_v on airports.airport_code = flights_v.departure_airport
4 WHERE airport_code NOT IN ('KZN', 'DME', 'OVB', 'IKT', 'LED', 'SV0')
5 GROUP BY airport_name
6 ORDER BY count_flights;
7

```

Output

Result 8 x

airport_name	count_flights
Усинск	34
Хурба	35
Нагань	51
Поперный	51
Елизово	52
Иваново-Куный	68
Магадан	70
Анадырь	70
Литецк	86
Кзыл	86
Нефтегазск	87
Белоярский	104
Стрежевой	121
Усть-Кут	121
Ижевск	121

Database Consoles > demo@localhost > console [demo@localhost]

Database Explorer

demo@localhost

hw7.sql

```
1 SELECT flights.flight_no, flights.scheduled_arrival, count(tf.ticket_no) as count_passengers
2 FROM flights JOIN bookings, ticket_flights tf on flights.flight_id = tf.flight_id
3 GROUP BY flights.flight_no, flights.scheduled_arrival
4 HAVING count(tf.ticket_no) BETWEEN 27 AND 90
5 ORDER BY flights.flight_no, flights.scheduled_arrival, count_passengers desc;
```

Output

flight_no	scheduled_arrival	count_passengers
P60012	2017-07-11 09:40:00.000000 +00:00	31
P60013	2017-09-10 17:00:00.000000 +00:00	68
P60013	2017-09-11 17:00:00.000000 +00:00	50
P60013	2017-09-12 17:00:00.000000 +00:00	53
P60013	2017-09-13 17:00:00.000000 +00:00	43
P60014	2017-05-17 04:55:00.000000 +00:00	36
P60014	2017-05-18 04:55:00.000000 +00:00	40
P60014	2017-05-19 04:55:00.000000 +00:00	37
P60014	2017-05-20 04:55:00.000000 +00:00	39
P60014	2017-05-21 04:55:00.000000 +00:00	38
P60014	2017-05-22 04:55:00.000000 +00:00	38
P60014	2017-05-23 04:55:00.000000 +00:00	39
P60014	2017-05-24 04:55:00.000000 +00:00	41
P60014	2017-05-25 04:55:00.000000 +00:00	44
P60014	2017-05-26 04:55:00.000000 +00:00	50

Database Explorer

demo@localhost

hw7.sql

```
1 SELECT passenger_name AS data FROM tickets
2 UNION
3 SELECT airport_name from airports
4 ORDER BY data desc;
```

Output

data
Якутск
Злиета
Шереметьево
Чулыман
Чита
Череповец
Челябинск
Чебоксары
Хурба
Хабарово
Ханты-Мансийск
Хабаровск-Новый
Ухта
Уфа

Database Explorer

hw7.sql

```

1 SELECT passenger_name AS data, 'Passenger' AS type
2 FROM tickets
3 UNION
4 SELECT airport_name, 'Airport' AS type
5 FROM airports
6 ORDER BY type desc, data;

```

Output

data	type
1 ADELINA AFANASEVA	Passenger
2 ADELINA AKIMOVA	Passenger
3 ADELINA ALEKSANDROVA	Passenger
4 ADELINA ALEKSEIEVA	Passenger
5 ADELINA ANDREEVA	Passenger
6 ADELINA ANISTIMOVA	Passenger
7 ADELINA BELOVA	Passenger
8 ADELINA BELYAEVA	Passenger
9 ADELINA CHERNOVA	Passenger
10 ADELINA DANILOVA	Passenger
11 ADELINA DENTSOVA	Passenger
12 ADELINA EFIMOVA	Passenger
13 ADELINA EGOROVA	Passenger
14 ADELINA ERMAKOVA	Passenger
15 ADELINA FILIPPOVA	Passenger

Services

demo@localhost

hw7.sql 3 s

airports 120 ms

airports 120 ms

6:26 CRLF UTF-8 4 spaces

Database Explorer

hw7.sql

```

1 SELECT count(flights.flight_no)
2 FROM flights
3 LEFT JOIN bookings.ticket_flights tf on flights.flight_id = tf.flight_id
4 WHERE tf.ticket_no IS NULL;

```

Output

count
1 20490

Services

demo@localhost

hw7.sql 447 ms

airports 120 ms

airports 120 ms

4:28 CRLF UTF-8 4 spaces

Database Explorer: demo@localhost

```

1 SELECT flights.departure_airport, avg(s.seats_count) AS avg_seats,
2       avg(tf.tickets_count) AS avg_tickets
3 FROM flights
4 JOIN (SELECT aircraft_code, count(*) as seats_count
5       FROM seats
6       group by aircraft_code) AS s ON flights.aircraft_code = s.aircraft_code
7 LEFT JOIN (SELECT flight_id, count(*) as tickets_count
8            FROM ticket_flights
9            GROUP BY flight_id) AS tf ON flights.flight_id = tf.flight_id
10 WHERE extract(month from flights.scheduled_departure) = 4
11 GROUP BY flights.departure_airport
12 ORDER BY avg_seats desc, avg_tickets desc;

```

Output: Result 14

departure_airport	avg_seats	avg_tickets
1 PKC	222	36.8571428571428571
2 KKK	222	24.0
3 GDX	152.5555555555555556	9
4 KBR	133.1666666666666667	75.8666666666666667
5 VVO	122.4347826086956522	30.0405116279069767
6 KUF	121.3333333333333333	73.4
7 AER	116.9517241379310345	71.9166666666666667
8 DYR	116	36
9 BTK	116	28.6666666666666667
10 AAQ	114.53125	50.9666666666666667
11 ULV	111.21875	64.8771929824561404
12 SVO	110.1023192360163711	66.351046988727858
13 SVX	108.5882352941176471	71.3271028037363178
14 PEE	107.8627450980392157	59.7818181818181818
15 LED	106.8486140724946695	47.84466091941747573

Database Explorer: demo@localhost

```

1 SELECT f.flight_no,
2       MIN(tf.amount) AS cheapest_ticket,
3       MAX(tf.amount) AS expensive_ticket
4 FROM flights f
5 JOIN ticket_flights tf ON f.flight_id = tf.flight_id
6 GROUP BY f.flight_no;

```

Output: Result 15

flight_no	cheapest_ticket	expensive_ticket
1 P60012	12300	13500
2 P60013	14000	42100
3 P60014	3300	9800
4 P60015	18700	20600
5 P60016	18700	20600
6 P60019	9500	10500
7 P60020	9500	10500
8 P60029	5300	5300
9 P60030	5300	5300
10 P60032	5300	5300
11 P60035	8700	8700
12 P60038	8700	8700
13 P60039	3200	9700
14 P60040	3200	9700
15 P60041	20900	23000