

zhaulybek7icloud.com > Downloads > lab2.sql

```
CREATE TABLE airline_info (  
    airline_id SERIAL PRIMARY KEY,  
    airline_code VARCHAR(30) NOT NULL,  
    airline_name VARCHAR(50) NOT NULL,  
    airline_country VARCHAR(50) NOT NULL,  
    created_at TIMESTAMP NOT NULL DEFAULT now(),  
    updated_at TIMESTAMP NOT NULL DEFAULT now(),  
    info VARCHAR(50) NOT NULL  
);
```

```
CREATE TABLE airport (  
    airport_id SERIAL PRIMARY KEY,  
    airport_name VARCHAR(50) NOT NULL,  
    country VARCHAR(50) NOT NULL,  
    state VARCHAR(50) NOT NULL,  
    city VARCHAR(50) NOT NULL,  
    created_at TIMESTAMP NOT NULL DEFAULT now(),  
    updated_at TIMESTAMP NOT NULL DEFAULT now()  
);
```

```
CREATE TABLE passengers (  
    passenger_id SERIAL PRIMARY KEY,  
    first_name VARCHAR(50) NOT NULL,  
    last_name VARCHAR(50) NOT NULL,  
    date_of_birth DATE NOT NULL,  
    gender VARCHAR(50) NOT NULL,  
    country_of_citizenship VARCHAR(50) NOT NULL,  
    country_of_residence VARCHAR(50) NOT NULL,  
    passport_number VARCHAR(20) NOT NULL,  
    created_at TIMESTAMP NOT NULL DEFAULT now(),  
    updated_at TIMESTAMP NOT NULL DEFAULT now()  
);
```

```
CREATE TABLE flights (  
    flight_id SERIAL PRIMARY KEY,  
    sch_departure_time TIMESTAMP NOT NULL,  
    sch_arrival_time TIMESTAMP NOT NULL,  
    departing_airport_id INT NOT NULL,  
    arriving_airport_id INT NOT NULL,  
    departing_gate VARCHAR(50) NOT NULL,  
    arriving_gate VARCHAR(50) NOT NULL,  
    airline_id INT NOT NULL,  
    act_departure_time TIMESTAMP NOT NULL,  
    act_arrival_time TIMESTAMP NOT NULL,  
    created_at TIMESTAMP NOT NULL DEFAULT now(),  
    updated_at TIMESTAMP NOT NULL DEFAULT now()  
);
```

```
CREATE TABLE booking (  
    booking_id SERIAL PRIMARY KEY,  
    flight_id INT NOT NULL,  
    passenger_id INT NOT NULL,  
    booking_platform VARCHAR(50) NOT NULL,  
    created_at TIMESTAMP NOT NULL DEFAULT now(),  
    updated_at TIMESTAMP NOT NULL DEFAULT now(),  
    status VARCHAR(50) NOT NULL,  
    price DECIMAL(7,2) NOT NULL  
);
```

```
CREATE TABLE booking_flight (  
    booking_flight_id SERIAL PRIMARY KEY,  
    booking_id INT NOT NULL,  
    flight_id INT NOT NULL,  
    created_at TIMESTAMP NOT NULL DEFAULT now(),  
    updated_at TIMESTAMP NOT NULL DEFAULT now()  
);
```

```
CREATE TABLE boarding_pass (  
  boarding_pass_id SERIAL PRIMARY KEY,  
  booking_id INT NOT NULL,  
  seat VARCHAR(50) NOT NULL,  
  boarding_time TIMESTAMP NOT NULL,  
  created_at TIMESTAMP NOT NULL DEFAULT now(),  
  updated_at TIMESTAMP NOT NULL DEFAULT now()  
);
```

```
CREATE TABLE baggage (  
  baggage_id SERIAL PRIMARY KEY,  
  weight_in_kg DECIMAL(4,2) NOT NULL,  
  created_at TIMESTAMP NOT NULL DEFAULT now(),  
  updated_at TIMESTAMP NOT NULL DEFAULT now(),  
  booking_id INT NOT NULL  
);
```

```
CREATE TABLE baggage_check (  
  baggage_check_id SERIAL PRIMARY KEY,  
  check_result VARCHAR(50) NOT NULL,  
  created_at TIMESTAMP NOT NULL DEFAULT now(),  
  updated_at TIMESTAMP NOT NULL DEFAULT now(),  
  booking_id INT NOT NULL,  
  passenger_id INT NOT NULL  
);
```

```
CREATE TABLE security_check (  
  security_check_id SERIAL PRIMARY KEY,  
  check_result VARCHAR(20) NOT NULL,  
  created_at TIMESTAMP NOT NULL DEFAULT now(),  
  updated_at TIMESTAMP NOT NULL DEFAULT now(),  
  passenger_id INT NOT NULL  
);
```

DDL5

```
ALTER TABLE airline_info RENAME TO airline;
```

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public.airline/airport\_db/postgres@PostgreSQL 17

Query

```
1 SELECT * FROM public.airline
2 ORDER BY airline_id ASC
```

Data Output

Showing rows: 1 to 4 Page No: 1 of 1

airline_id [FK] integer	airline_code character varying (30)	airline_name character varying (50)	airline_country character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone
1	KZ	KazAir	Turkey	2025-09-23 22:36:46.645346	2025-09-23 22:36:46.645346
2	AF	AirEasy	France	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779
3	FH	Flytigh	Brazil	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779
4	FF	FlyFly	Poland	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779

Total rows: 4 Query complete 00:00:07.030 LF Ln 1, Col 1

DDL6

```
ALTER TABLE booking RENAME COLUMN price TO ticket_price;
```



Object Explorer

Event Triggers

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airport

baggage

baggage\_check

boarding\_pass

booking

booking\_flight

flights

passengers

security\_check

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Views

Subscriptions

postgres

Login/Group Roles

Tablespaces

public airport/airp... X public.booking/air... X public.flights/airp... X public.passengers... X public.booking/airport\_db/postgres@PostgreSQL 17 X

public.booking/airport\_db/postgres@PostgreSQL 17

Query Query History

1 SELECT \* FROM public.booking  
2 ORDER BY booking\_id ASC

Scratch Pad X

Data Output Messages Notifications

Showing rows: 1 to 5 Page No. 1 of 1

	booking_id (PK) integer	flight_id integer	passenger_id integer	booking_platform character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone	status character varying (50)	ticket_price numeric (7,2)
1	1	1	1	Online	2025-09-23 23:03:01.393845	2025-09-23 23:03:01.393845	Confirmed	9000.00
2	2	2	2	MobileApp	2025-09-23 23:03:01.393845	2025-09-23 23:03:01.393845	Confirmed	10000.00
3	3	3	3	Website	2025-09-23 23:03:01.393845	2025-09-23 23:03:01.393845	Pending	15000.00
4	4	4	4	Agent	2025-09-23 23:03:01.393845	2025-09-23 23:03:01.393845	Cancelled	8000.00
5	5	5	5	Online	2025-09-23 23:03:01.393845	2025-09-23 23:03:01.393845	Confirmed	20000.00

Total rows: 5 Query complete 08:00:03.600 LF Ln 1, Col 1

DDL7

```
ALTER TABLE flights ALTER COLUMN departing_gate TYPE text;
```



Object Explorer

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security\_check

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public.flights/airport\_db/postgres@PostgreSQL 17

Query

Query History

Scratch Pad X

1

2

SELECT \* FROM public.flights

ORDER BY flight\_id ASC

Data Output

Messages

Notifications

Showing rows: 1 to 5

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of 1

14

44

33

31

	soh_departure_time timestamp without time zone	soh_arrival_time timestamp without time zone	departing_airport_id integer	arriving_airport_id integer	departing_gate text	arriving_gate character varying (50)	airline_id integer	act_departure_time timestamp without time zone
1	2023-05-10 08:00:00	2023-05-10 12:00:00	1	2	A1	B2	1	2023-05-10 08:15:00
2	2024-06-15 09:30:00	2024-06-15 13:30:00	3	4	C3	D4	2	2024-06-15 09:35:00
3	2025-07-01 14:00:00	2025-07-01 18:00:00	5	6	E1	F1	3	2025-07-01 14:10:00
4	2024-08-20 10:00:00	2024-08-20 14:00:00	7	8	G2	H2	4	2024-08-20 10:05:00
5	2025-09-05 07:00:00	2025-09-05 11:00:00	9	10	I1	J3	1	2025-09-05 07:05:00

Total rows: 5    Query complete 00:00:03.709

LF    Ln 1, Col 1

DDL8

```
ALTER TABLE airline DROP COLUMN info;
```

Object Explorer

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public.airline/airport\_db/postgres@PostgreSQL 17

Query Query History

```
1 SELECT * FROM public.airline
2 ORDER BY airline_id ASC
```

Scratch Pad

Data Output Messages Notifications

Showing rows: 1 to 4 Page No. 1 of 1

airline_id (PK) integer	airline_code character varying (30)	airline_name character varying (50)	airline_country character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone
1	KZ	KazAir	Turkey	2025-09-23 22:36:46.645346	2025-09-23 22:36:46.645346
2	AF	AirEasy	France	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779
3	FH	Flytigh	Brazil	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779
4	FF	FlyFly	Poland	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779

Total rows: 4 Query complete 00:00:07.030 LF Ln 1, Col 1

## DML1

```
INSERT INTO airport (airport_name, country, state, city, created_at, updated_at)
SELECT
    'Airport_' || gs,
    'Country_' || (1 + floor(random()*50))::int,
    'State_' || (1 + floor(random()*20))::int,
    'City_' || (1 + floor(random()*200))::int,
    now(),
    now()
FROM generate_series(1,200) AS gs;
```

Object Explorer

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public airport/airport\_db/postgres@PostgreSQL 17

Query

```
1. SELECT * FROM public.airport
2. ORDER BY airport_id ASC
```

Query History

Scratch Pad

Data Output

Showing rows: 1 to 200 | Page No: 1 of 1

airport_id (PK) integer	airport_name character varying (90)	country character varying (50)	state character varying (50)	city character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone
189	Airport_189	Country_46	State_19	City_89	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
190	Airport_190	Country_17	State_15	City_122	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
191	Airport_191	Country_11	State_14	City_63	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
192	Airport_192	Country_37	State_15	City_139	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
193	Airport_193	Country_14	State_20	City_194	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
194	Airport_194	Country_46	State_8	City_162	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
195	Airport_195	Country_48	State_1	City_139	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
196	Airport_196	Country_40	State_14	City_50	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
197	Airport_197	Country_6	State_4	City_121	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
198	Airport_198	Country_9	State_2	City_184	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
199	Airport_199	Country_27	State_1	City_135	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184
200	Airport_200	Country_36	State_18	City_172	2025-09-23 22:36:46.642184	2025-09-23 22:36:46.642184

Total rows: 200 | Query complete 00:00:03.394

LF Ln 1, Col 1

DML2,3

```
INSERT INTO airline (airline_code, airline_name, airline_country)
VALUES ('KZ', 'KazAir', 'Kazakhstan');

UPDATE airline SET airline_country = 'Turkey' WHERE airline_name = 'KazAir';
```



Object Explorer

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      - passengers
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      - Trigger Functions

public.airline/airport\_db/postgres@PostgreSQL 17

Query Query History

```
1 SELECT * FROM public.airline
2 ORDER BY airline_id ASC
```

Data Output Messages Notifications

Showing rows: 1 to 4 Page No. 1 of 1

airline_id [PK] integer	airline_code character varying (30)	airline_name character varying (50)	airline_country character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone
1	KZ	KazAir	Turkey	2025-09-23 22:36:46.645346	2025-09-23 22:36:46.645346
2	DL	Airway	USA	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779
3	FH	Flytigh	Brazil	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779
4	FF	FlyFly	Poland	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779

Total rows: 4 Query complete 00:00:09.326 LF Ln 1, Col 1

## DML4

```
INSERT INTO airline (airline_code, airline_name, airline_country)
VALUES
    ('AE', 'AirEasy', 'France'),
    ('FH', 'FlyHigh', 'Brazil'),
    ('FF', 'FlyFly', 'Poland');
```

Object Explorer

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      - baggage\_check
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      - flights
      - passengers
      - security\_check
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public.airline/airport\_db/postgres@PostgreSQL 17

Query

```
1. SELECT * FROM public.airline
2. ORDER BY airline_id ASC
```

Query History

Scratch Pad

Data Output

Showing rows: 1 to 4 | Page No: 1 | of 1

airline_id [PK] integer	airline_code character varying (30)	airline_name character varying (50)	airline_country character varying (100)	created_at timestamp without time zone	updated_at timestamp without time zone
1	KZ	Kazakh	Turkey	2025-09-23 22:36:46.645346	2025-09-23 22:36:46.645346
2	AF	AirEasy	France	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779
3	FH	Flytigh	Brazil	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779
4	IF	FlyFly	Poland	2025-09-23 22:36:46.646779	2025-09-23 22:36:46.646779

Total rows: 4 | Query complete 00:00:08.326 | LF | Ln 1, Col 1

DML5

```
DELETE FROM flights
WHERE EXTRACT(YEAR FROM sch_arrival_time) = 2024
    OR EXTRACT(YEAR FROM act_arrival_time) = 2024;
```

Object Explorer | File display | Lab 2/postgres@P... | public airline/Lab... | public flights/Lab... | public flights/Lab 2/postgres@PostgreSQL 17... X

Materialized Views  
Operators  
Procedures  
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Tables (10)  
airline  
Columns (7)  
airline\_id  
airline\_code  
airline\_name  
airline\_country  
created\_at  
updated\_at  
info  
Constraints  
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airport  
baggage  
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boarding\_pass  
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booking\_flight  
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Types

Query | Query History | Scratch Pad X

```
1 DELETE FROM flights
2 WHERE EXTRACT(YEAR FROM sch_arrival_time) < 2024
3 OR EXTRACT(YEAR FROM act_arrival_time) < 2024;
4
```

Data Output | Messages | Notifications

Showing rows: 1 to 2 | Page No: 1 of 1

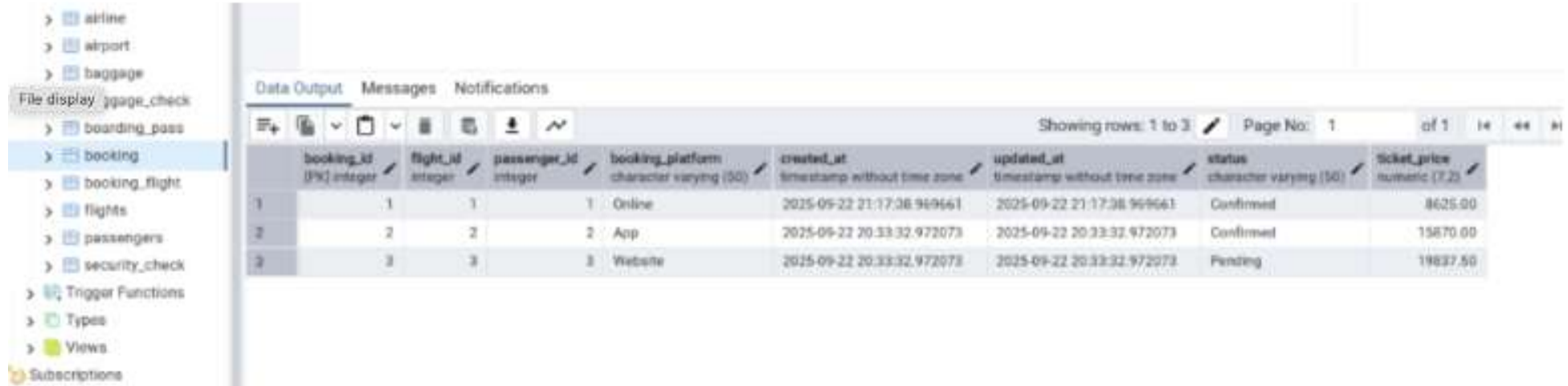
flight_id	sch_departure_time	sch_arrival_time	departing_airport_id	arriving_airport_id	departing_gate	arriving_gate	airline_id	act_departure_time
[PK] integer	timestamp without time zone	timestamp without time zone	integer	integer	text	character varying (30)	integer	timestamp without time zone
1	2023-11-01 08:00:00	2023-11-01 12:00:00	1	2	A1	B2	1	2023-11-01 08:00:00
2	2025-03-22 07:00:00	2025-03-22 11:00:00	4	5	G1	H3	4	2025-03-22 07:00:00

Total rows: 2 | Query complete 00:00:00.236 | CRLF | Ln 4, Col 1

```
UPDATE booking
```

```
SET ticket_price = ROUND(ticket_price * 1.15, 2);
```

```
DELETE FROM booking WHERE ticket_price < 10000;
```



booking_id (PK) integer	flight_id integer	passenger_id integer	booking_platform character varying (50)	created_at timestamp without time zone	updated_at timestamp without time zone	status character varying (50)	ticket_price numeric (7,2)
1	1	1	Online	2025-09-22 21:17:38.969661	2025-09-22 21:17:38.969661	Confirmed	8625.00
2	2	2	App	2025-09-22 20:33:32.972073	2025-09-22 20:33:32.972073	Confirmed	15870.00
3	3	3	Website	2025-09-22 20:33:32.972073	2025-09-22 20:33:32.972073	Pending	19837.50