

LAB 6

#1

The screenshot shows the pgAdmin 4 interface with a query editor and a data viewer.

Object Explorer: Shows the database schema with tables: airline, flights, booking, baggage, baggage_check, boarding_pass, and airport.

Query Editor: Displays the following SQL query:

```
1 v SELECT f.flight_id, f.flight_no, f.scheduled_departure, f.scheduled_arrival,
2   f.departure_airport_id, f.arrival_airport_id, f.status,
3   a.airline_name, a.airline_code
4 FROM airline as a
5 INNER JOIN flights as f
6 ON a.airline_id = f.airline_id
7 WHERE airline_name = 'SMM'
```

Data Output: Shows the results of the query, listing 19 flights from SMM airline. The columns are: scheduled_departure, scheduled_arrival, departure_airport_id, arrival_airport_id, status, airline_name, and airline_code.

	scheduled_departure	scheduled_arrival	departure_airport_id	arrival_airport_id	status	airline_name	airline_code	
1	2023-07-21	2023-09-17	13	16	Boarding	SMM	WBKA	
2	2023-03-29	2023-08-01		18	12	Boarding	SMM	WBKA
3	2023-07-07	2023-09-11		18	1	Check-in open	SMM	WBKA
4	2024-01-07	2023-04-03		2	2	Delayed	SMM	WBKA
5	2023-08-17	2023-05-30		14	4	Delayed	SMM	WBKA
6	2024-01-04	2024-01-26		2	15	Delayed	SMM	WBKA
7	2023-11-17	2024-03-08		10	6	Boarding	SMM	WBKA
8	2023-12-10	2023-11-04		5	15	Delayed	SMM	WBKA
9	2023-06-12	2023-09-04		9	6	Delayed	SMM	WBKA
10	2023-05-15	2023-12-10		14	8	Boarding	SMM	WBKA
11	2024-03-11	2024-03-06		9	7	Delayed	SMM	WBKA
12	2023-07-11	2023-06-11		15	19	Boarding	SMM	WBKA
13	2023-09-02	2023-09-15		6	5	Delayed	SMM	WBKA

#2

The screenshot shows the pgAdmin 4 interface with a query editor and a data viewer.

Object Explorer: Shows the database schema with tables: airline, flights, booking, baggage, baggage_check, boarding_pass, and airport.

Query Editor: Displays the following SQL query:

```
1 v SELECT f.*, a.airport_name
2   FROM airport as a
3   INNER JOIN flights as f
4   ON f.departure_airport_id = a.airport_id
```

Data Output: Shows the results of the query, listing 1000 flights. The columns are: arriving_gate, airline_id, status, actual_departure_date, actual_arrival_date, created_at, update_at, and airport_name.

	arriving_gate	airline_id	status	actual_departure_date	actual_arrival_date	created_at	update_at	airport_name
1	649	39	Check-in open	2023-10-30	2023-11-07	2023-03-30	2023-06-23	Elorza Airport
2	90	34	Boarding	2024-02-09	2024-01-23	2023-11-16	2023-12-07	Figan Sud-Corse Airport
3	9	34	Boarding	2024-02-21	2023-05-14	2023-04-12	2024-03-04	Darchula Airport
4	66	33	Check-in open	2023-10-10	2023-04-07	2023-12-16	2023-05-26	Lime Acres Finsch Mine Airport
5	171	14	Check-in open	2023-11-18	2023-07-02	2024-01-18	2023-09-13	Hana Airport
6	72	34	Check-in open	2024-02-19	2023-04-28	2024-03-17	2023-06-25	Darchula Airport
7	15	10	Delayed	2023-12-04	2023-07-12	2023-03-29	2023-10-19	Ocean Falls Seaplane Base
8	1985	12	Delayed	2023-07-10	2023-08-01	2023-07-09	2023-05-10	Figan Sud-Corse Airport
9	621	13	Delayed	2023-06-17	2023-12-03	2024-02-29	2023-04-28	Hana Airport
10	555	29	Check-in open	2023-05-23	2023-04-26	2024-01-12	2023-08-02	Longana Airport
11	3288	46	Delayed	2024-02-06	2023-05-15	2023-09-18	2024-03-05	Delta County Airport
12	2592	27	Boarding	2023-04-28	2023-11-17	2023-11-29	2023-04-25	Elorza Airport
13	5429	1	Delayed	2023-08-19	2023-11-09	2023-06-29	2023-11-09	Figan Sud-Corse Airport

#3

#4

```

SELECT a.* 
FROM airline AS a 
LEFT JOIN flights f ON a.airline_id = f.airline_id 
AND EXTRACT(YEAR FROM f.scheduled_departure) = EXTRACT(YEAR FROM DATE '2023-11-11') 
AND EXTRACT(MONTH FROM f.scheduled_departure) = EXTRACT(MONTH FROM DATE '2023-11-11') + 1 
WHERE f.flight_id IS NULL
    
```

	airline_id	airline_code	airline_name	airline_country	created_at	update_at
1	2	YPD	PDN	Brazil	2024-01-15	2023-11-23
2	22	2AK6	HGZ	Philippines	2024-03-13	2023-10-20
3	23	KSPI	SPI	United States	2023-07-29	2023-12-28
4	25	LFKC	CLY	France	2023-09-04	2023-06-19
5	32	UAKK	KGF	Indonesia	2023-07-07	2023-12-25
6	35	SPSO	PIO	Costa Rica	2023-07-03	2023-12-01
7	36	VNJP	JKR	China	2023-04-15	2024-01-23
8	38	HYL	HYL	Yemen	2023-05-09	2024-02-24
9	49	[null]	PGS	Poland	2023-04-21	2023-09-08

Total rows: 9 Query complete 00:00:00.111 CRLF Ln 6, Col 77

#4

```

SELECT * 
FROM booking_Flight AS bf 
INNER JOIN booking AS bo 
ON bf.booking_id = bo.booking_id 
INNER JOIN passengers AS p 
ON bo.passenger_id = p.passenger_id 
WHERE bf.flight_id = 26
    
```

	booking_flight_id	booking_id	flight_id	created_at	update_at	booking_id	passenger_id	booking_platform	created_at	update_at	status
1	678	131	26	2023-09-09	2023-08-07	131	179	Hessel Inc	2023-06-02	2023-10-24	F
2	324	300	26	2023-09-18	2023-07-18	300	150	Stokes, Stokes and Mayer	2023-12-28	2023-11-12	F

Total rows: 2 Query complete 00:00:00.091 CRLF Ln 7, Col 24

#5

#6

```

SELECT bf.flight_id,
       AVG(b.price) AS average_price,
       SUM(b.price) AS total_price,
       MAX(b.price) AS max_price,
       MIN(b.price) AS min_price
  FROM booking b
 JOIN booking_flight bf ON b.booking_id = bf.booking_id
 GROUP BY bf.flight_id;
    
```

The screenshot shows the pgAdmin 4 interface with the Object Explorer pane open, displaying the 'passenger' table structure. The SQL tab in the main pane contains the provided query. The Data Output tab shows the results of the query, which lists 614 rows of flight statistics. A message at the bottom right indicates the query was completed successfully.

flight_id	average_price	total_price	max_price	min_price
846	7070.45	7070.45	7070.45	7070.45
790	7988.95	15977.90	9851.86	6126.04
828	5974.54	5974.54	5974.54	5974.54
938	4635.86	4635.86	4635.86	4635.86
184	2856.20	5712.40	3529.26	2183.14
753	3153.71	3153.71	3153.71	3153.71
273	8929.20	8929.20	8929.20	8929.20
951	3034.54	6069.08	5888.12	180.96
70	683.27	683.27	683.27	683.27
190	8217.56	8217.56	8217.56	8217.56
867	6575.39	6575.39	6575.39	6575.39
350	5936.76	29683.84	9792.28	2520.04

Total rows: 614 Query complete 00:00:00.108 CRLF Ln 9, Col 1

#7

```

SELECT f.*,
       a.airline_name,
       ap.airport_name AS arrival_airport_name
  FROM flights f
 JOIN airline a ON f.airline_id = a.airline_id
 JOIN airport ap ON f.arrival_airport_id = ap.airport_id
 WHERE ap.country = 'Russia';
    
```

The screenshot shows the pgAdmin 4 interface with the Object Explorer pane open, displaying the 'airline' table structure. The SQL tab in the main pane contains the provided query. The Data Output tab shows the results of the query, which lists 56 flights from Russian airports. A message at the bottom right indicates the query was completed successfully.

flight_id	flight_no	scheduled_departure	scheduled_arrival	departure_airport_id	arrival_airport_id	departing_gate	arriving_gate
6	CA-SK	2023-07-07	2023-09-11	18	1	1576	72
20	US-MS	2024-02-06	2024-01-22	10	1	346	56
64	BR-PR	2023-07-24	2023-06-07	14	1	786	1095
79	US-AR	2023-12-29	2023-09-16	10	1	249	57
112	US-AK	2023-11-09	2023-10-04	8	1	27	119
148	US-FL	2023-05-08	2024-02-28	20	1	13	354
189	TD-DD	2023-12-14	2023-08-10	5	1	1788	1208
191	KZ-SEV	2023-08-06	2023-12-06	14	1	453	[null]
202	FI-LL	2023-09-23	2023-04-10	14	1	644	59
211	CN-32	2023-10-14	2023-06-27	13	1	[null]	3275
225	US-OK	2023-05-13	2023-08-08	7	1	1295	15

Total rows: 56 Query complete 00:00:00.045 CRLF Ln 5, Col 27

#8

```

1 v  SELECT p.first_name, p.last_name, ap.airport_name AS arrival_destination
2   FROM passengers p
3   JOIN booking b ON p.passenger_id = b.passenger_id
4   JOIN booking_flight bf ON b.booking_id = bf.booking_id
5   JOIN flights f ON bf.flight_id = f.flight_id
6   JOIN airport ap ON f.arrival_airport_id = ap.airport_id
7   WHERE EXTRACT(YEAR FROM AGE(CURRENT_DATE, p.date_of_birth)) < 18;
8

```

	first_name	last_name	arrival_destination
1	Vivyan	Mallabone	Alert Bay Airport
2	Lester	Blades	Armidale Airport
3	Lester	Blades	Figan Sud-Corse Airport
4	Cleve	Edgeler	Industrial Airport
5	Bradley	Grolle	Armidale Airport
6	Cleve	Edgeler	Fort Worth Alliance Airport
7	Gwennie	Chinnery	Elorza Airport
8	Cleve	Edgeler	Garbahay Airport
9	Vivyan	Mallabone	Hana Airport
10	Bradley	Grolle	Lime Acres Finsch Mine Airport
11	Vivyan	Mallabone	Elorza Airport
12	Ronni	Laybourn	Hana Airport

Showing rows: 1 to 37 | Page No: 1 of 1 | 14 <> >> | SQL | Data Output | Messages | Notifications | Scratch Pad | CRLF | Ln 8, Col 1

✓ Successfully run. Total query runtime: 67 msec. 37 rows affected.

#8

```

1 v  SELECT p.first_name || ' ' || p.last_name AS full_name, p.passport_number, f.actual_
2   FROM passengers p
3   JOIN booking b ON p.passenger_id = b.passenger_id
4   JOIN booking_flight bf ON b.booking_id = bf.booking_id
5   JOIN flights f ON bf.flight_id = f.flight_id;
6

```

	full_name	passport_number	actual_arrival
1	Muhammad Fass	109932770-9	2023-07-18
2	Trevor Broun	788025864-7	2024-02-11
3	Auria Breffit	570537341-4	2023-07-11
4	Archie Toffel	677556708-1	2023-06-17
5	Sanders Biddle	514546405-3	2023-09-05
6	Sanders Biddle	514546405-3	2024-03-01
7	Remington Piggot	470074456-1	2023-05-31
8	Glynis Marle	209933120-0	2024-02-02
9	Cesario McGennis	364900190-X	2023-04-03
10	Con Borrel	837859465-3	2024-02-15
11	Lorianna Robbie	435354132-3	2024-01-19
12	Brad Apperley	842288763-0	2024-02-10

Showing rows: 1 to 1000 | Page No: 1 of 1 | 14 <> >> | SQL | Data Output | Messages | Notifications | Scratch Pad | CRLF | Ln 6, Col 1

✓ Successfully run. Total query runtime: 71 msec. 1000 rows affected.

#9

The screenshot shows the pgAdmin 4 interface. The left sidebar is the Object Explorer, displaying a tree structure of database objects. The 'Tables' node under 'Tables (10)' is expanded, with 'airline' selected. The main area contains a SQL editor window with the following query:

```
1 v SELECT ap.country, COUNT(f.flight_id) AS num_flights
2   FROM flights f
3   JOIN airline a ON f.airline_id = a.airline_id
4   JOIN airport ap ON f.departure_airport_id = ap.airport_id
5 WHERE a.airline_country = ap.country
6 GROUP BY ap.country;
7
```

Below the SQL editor is a Data Output tab showing the results of the query:

	country	character varying (50)	num_flights	bigint
1	Indonesia		6	
2	Slovenia		2	
3	Greece		1	
4	Russia		5	
5	China		50	
6	Brazil		5	
7	Poland		2	
8	Philippines		3	

At the bottom of the pgAdmin window, there is a status bar with the message: "Successfully run. Total query runtime: 69 msec. 8 rows affected." and "CRLF Ln 7, Col 1".