

LAB 4

1. Retrieve all airline names in uppercase.

The screenshot shows a PostgreSQL database interface with the following details:

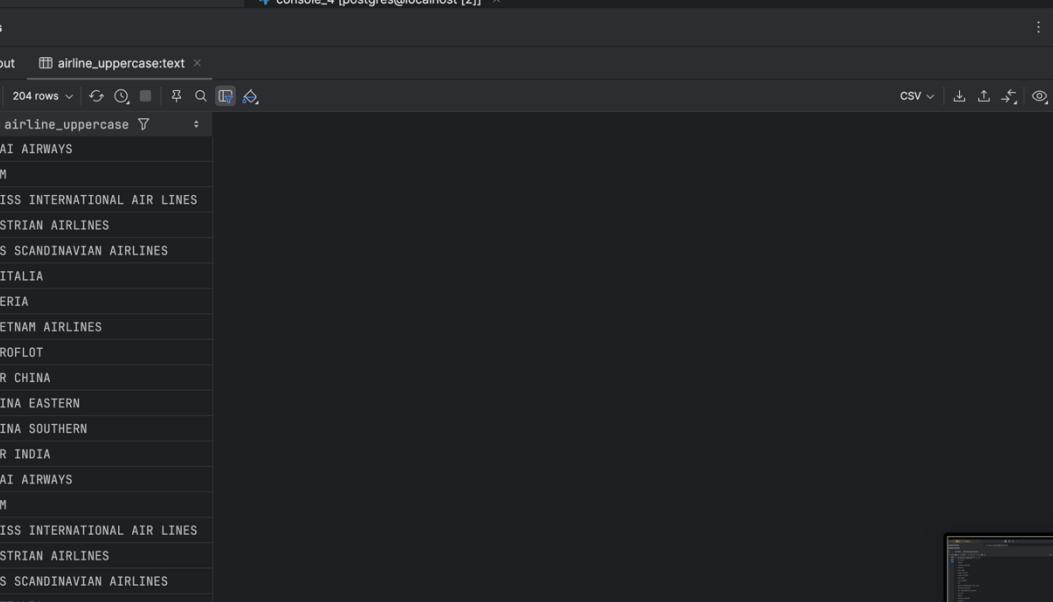
- Database Explorer:** Shows two sessions: `postgres@localhost [2]` and `postgres@localhost [2] 6`.
- Console:** The current session is `console_4 [postgres@localhost [2]]`. The query `SELECT UPPER(airline_name) AS airline_uppercase FROM airline;` has been run and returned 204 rows.
- Table View:** A table named `airline_uppercase` is displayed with 17 rows, each containing an airline name in uppercase. The rows are numbered 1 through 17.
- Table Data:**

post	airline_uppercase
1	AMERICAN AIRLINES
2	BRITISH AIRWAYS
3	LUFTHANSA
4	AIR FRANCE
5	EMIRATES
6	QATAR AIRWAYS
7	SINGAPORE AIRLINES
8	CATHAY PACIFIC
9	JAPAN AIRLINES
10	AIR CANADA
11	UNITED AIRLINES
12	DELTA AIRLINES
13	KLM ROYAL DUTCH AIRLINES
14	AIR NEW ZEALAND
15	MALAYSIA AIRLINES
16	THAI AIRWAYS
17	SOUTH AFRICAN AIRWAYS

The screenshot shows the Database Explorer interface in pgAdmin. The title bar indicates the session is 'console_4 [postgres@localhost [2]]'. The main area displays the results of a query on the 'airline_uppercase' table. The table has two columns: 'id' and 'name'. The data consists of 204 rows, with the first few rows being:

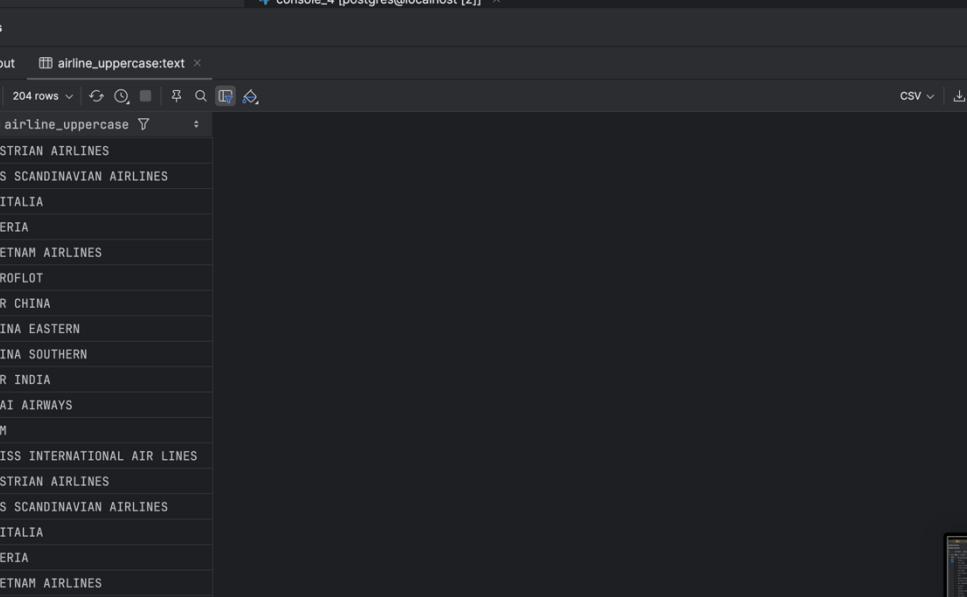
	name
18	ALITALIA
19	IBERIA
20	VIETNAM AIRLINES
21	AEROFLOT
22	AIR CHINA
23	CHINA EASTERN
24	CHINA SOUTHERN
25	AIR INDIA
26	THAI AIRWAYS
27	KLM
28	SWISS INTERNATIONAL AIR LINES
29	AUSTRIAN AIRLINES
30	SAS SCANDINAVIAN AIRLINES
31	ALITALIA
32	IBERIA
33	VIETNAM AIRLINES
34	AEROFLOT
35	AIR CHINA
36	CHINA EASTERN
37	CHINA SOUTHERN
38	AIR INDIA

The interface includes standard pgAdmin navigation and toolbars at the top and bottom.



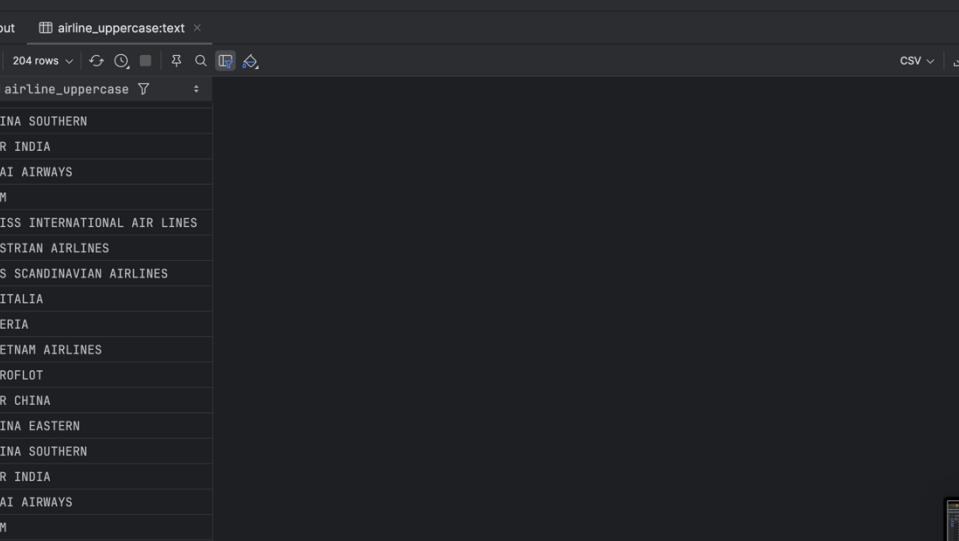
The screenshot shows a PostgreSQL database session titled "console_4 [postgres@localhost [2]]". The session is connected to the "airline_uppercase" table, which contains 204 rows of airline names. The names are listed in uppercase, starting with THAI AIRWAYS and ending with VIETNAM AIRLINES. The session interface includes a toolbar with icons for file operations, a Database Explorer sidebar, and a bottom navigation bar.

Row	Airline Name
39	THAI AIRWAYS
40	KLM
41	SWISS INTERNATIONAL AIR LINES
42	AUSTRIAN AIRLINES
43	SAS SCANDINAVIAN AIRLINES
44	ALITALIA
45	IBERIA
46	VIETNAM AIRLINES
47	AEROFLOT
48	AIR CHINA
49	CHINA EASTERN
50	CHINA SOUTHERN
51	AIR INDIA
52	THAI AIRWAYS
53	KLM
54	SWISS INTERNATIONAL AIR LINES
55	AUSTRIAN AIRLINES
56	SAS SCANDINAVIAN AIRLINES
57	ALITALIA
58	IBERIA
59	Vietnam Airlines



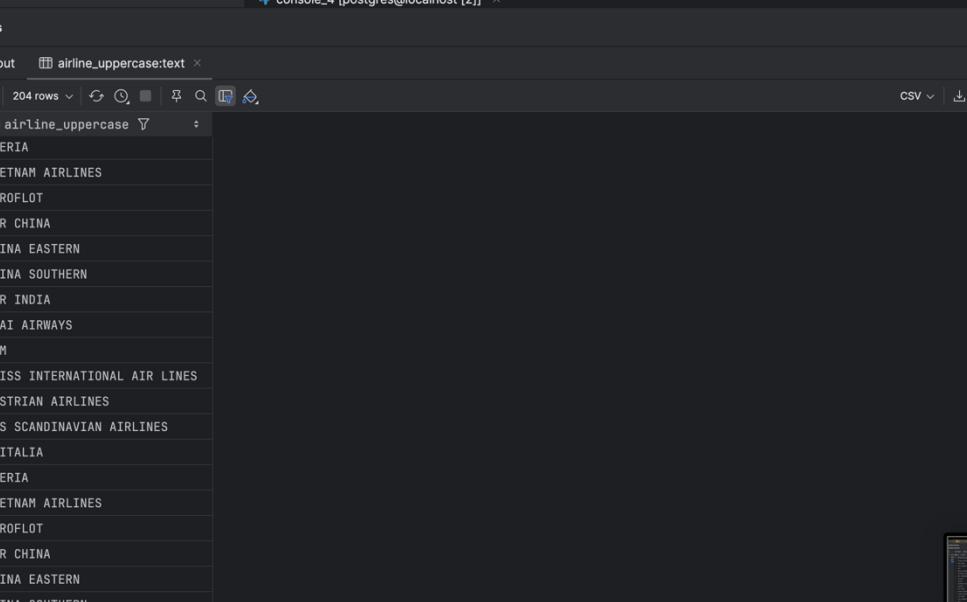
The screenshot shows a PostgreSQL database session titled "console_4 [postgres@localhost [2]]". The session is running a query on the "airline_uppercase" table, which contains 204 rows of airline names. The results are displayed in a table format with columns for row number, ID, and airline name. The airline names are listed in uppercase. The session interface includes tabs for "Tx" and "Output", and various toolbar icons for managing the connection and data.

	ID	AIRLINE NAME
1	81	AUSTRIAN AIRLINES
2	82	SAS SCANDINAVIAN AIRLINES
3	83	ALITALIA
4	84	IBERIA
5	85	VIETNAM AIRLINES
6	86	AEROFLOT
7	87	AIR CHINA
8	88	CHINA EASTERN
9	89	CHINA SOUTHERN
10	90	AIR INDIA
11	91	THAI AIRWAYS
12	92	KLM
13	93	SWISS INTERNATIONAL AIR LINES
14	94	AUSTRIAN AIRLINES
15	95	SAS SCANDINAVIAN AIRLINES
16	96	ALITALIA
17	97	IBERIA
18	98	VIETNAM AIRLINES
19	99	AEROFLOT
20	100	AIR CHINA
21	101	CHINA EASTERN



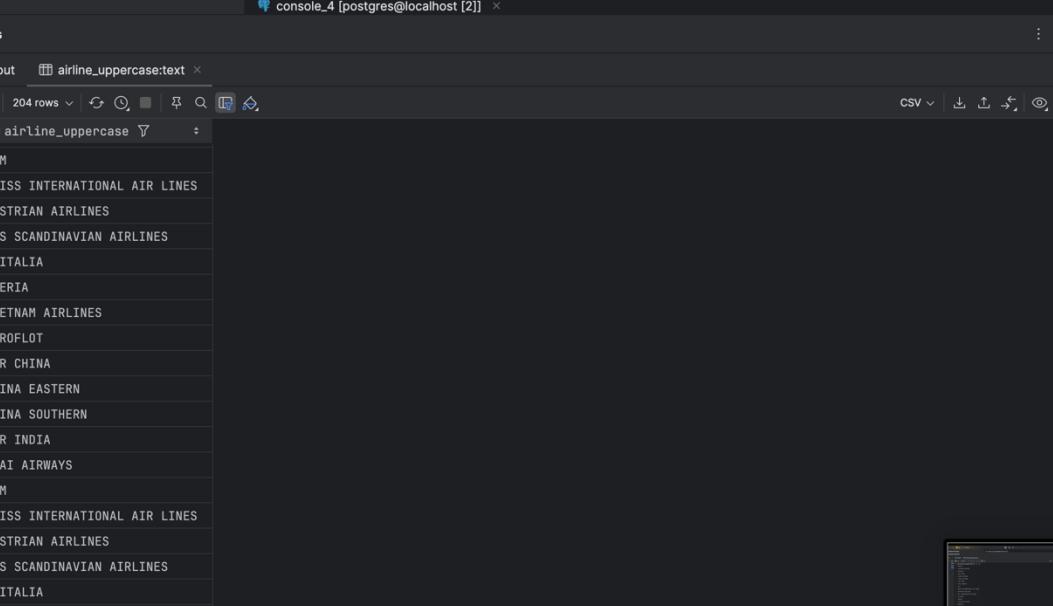
The screenshot shows the Database Explorer interface in pgAdmin. A context menu is open over the first row of the 'airline_uppercase' table, which contains the value 'CHINA SOUTHERN'. The menu options include 'Copy', 'Paste', 'Delete', 'Edit', 'Insert', 'Select', 'Refresh', 'Check constraints', 'Drop', 'Truncate', 'Format', 'Script', 'Table properties', and 'Index properties'. The table has 204 rows and is defined as a text type.

	airline_uppercase
102	CHINA SOUTHERN
103	AIR INDIA
104	THAI AIRWAYS
105	KLM
106	SWISS INTERNATIONAL AIR LINES
107	AUSTRIAN AIRLINES
108	SAS SCANDINAVIAN AIRLINES
109	ALITALIA
110	IBERIA
111	VIETNAM AIRLINES
112	AEROFLOT
113	AIR CHINA
114	CHINA EASTERN
115	CHINA SOUTHERN
116	AIR INDIA
117	THAI AIRWAYS
118	KLM
119	SWISS INTERNATIONAL AIR LINES
120	AUSTRIAN AIRLINES
121	SAS SCANDINAVIAN AIRLINES
122	ALITALIA



The screenshot shows a PostgreSQL database session titled "console_4 [postgres@localhost [2]]". The session is connected to the "airline_uppercase" table, which contains 204 rows of airline names in uppercase. The table structure is as follows:

id	airline_uppercase
123	IBERIA
124	VIETNAM AIRLINES
125	AEROFLOT
126	AIR CHINA
127	CHINA EASTERN
128	CHINA SOUTHERN
129	AIR INDIA
130	THAI AIRWAYS
131	KLM
132	SWISS INTERNATIONAL AIR LINES
133	AUSTRIAN AIRLINES
134	SAS SCANDINAVIAN AIRLINES
135	ALITALIA
136	IBERIA
137	VIETNAM AIRLINES
138	AEROFLOT
139	AIR CHINA
140	CHINA EASTERN
141	CHINA SOUTHERN
142	AIR INDIA
143	THAI AIRWAYS



The screenshot shows the pgAdmin interface with the Database Explorer open. The current session is "console_4 [postgres@localhost [2]]". The table "airline_uppercase" contains 204 rows of airline names, all in uppercase. The table structure is as follows:

	airline_uppercase
144	KLM
145	SWISS INTERNATIONAL AIR LINES
146	AUSTRIAN AIRLINES
147	SAS SCANDINAVIAN AIRLINES
148	ALITALIA
149	IBERIA
150	VIETNAM AIRLINES
151	AEROFLOT
152	AIR CHINA
153	CHINA EASTERN
154	CHINA SOUTHERN
155	AIR INDIA
156	THAI AIRWAYS
157	KLM
158	SWISS INTERNATIONAL AIR LINES
159	AUSTRIAN AIRLINES
160	SAS SCANDINAVIAN AIRLINES
161	ALITALIA
162	IBERIA
163	VIETNAM AIRLINES
164	AEROFLOT

The screenshot shows the Database Explorer interface of a PostgreSQL client. The current session is 'console_4 [postgres@localhost [2]]'. The table 'airline_uppercase' is selected, containing 204 rows of airline names. The rows are numbered from 165 to 185. The names listed are: AIR CHINA, CHINA EASTERN, CHINA SOUTHERN, AIR INDIA, THAI AIRWAYS, KLM, SWISS INTERNATIONAL AIR LINES, AUSTRIAN AIRLINES, SAS SCANDINAVIAN AIRLINES, ALITALIA, IBERIA, VIETNAM AIRLINES, AEROFLOT, AIR CHINA, CHINA EASTERN, CHINA SOUTHERN, AIR INDIA, THAI AIRWAYS, KLM, SWISS INTERNATIONAL AIR LINES, and AUSTRIAN AIRLINES.

	airline_uppercase
165	AIR CHINA
166	CHINA EASTERN
167	CHINA SOUTHERN
168	AIR INDIA
169	THAI AIRWAYS
170	KLM
171	SWISS INTERNATIONAL AIR LINES
172	AUSTRIAN AIRLINES
173	SAS SCANDINAVIAN AIRLINES
174	ALITALIA
175	IBERIA
176	VIETNAM AIRLINES
177	AEROFLOT
178	AIR CHINA
179	CHINA EASTERN
180	CHINA SOUTHERN
181	AIR INDIA
182	THAI AIRWAYS
183	KLM
184	SWISS INTERNATIONAL AIR LINES
185	AUSTRIAN AIRLINES

A screenshot of a PostgreSQL database interface. The top bar shows 'Database Explorer' and 'console_4 [postgres@localhost [2]]'. The main area displays a table titled 'airline_uppercase:text' with 204 rows. The table contains airline names converted to uppercase. The code editor at the bottom shows the SQL query:

```
SELECT UPPER(airline_name) AS airline_uppercase FROM airline;
```

2. Replace any occurrence of the word "Air" in airline names with "Aero".

A screenshot of a PostgreSQL database interface. The top bar shows 'Database Explorer' and 'console_4 [postgres@localhost [2]]'. The main area displays a table titled 'modified_name:text' with 204 rows. The table contains airline names with 'Air' replaced by 'Aero'. The code editor at the bottom shows the SQL query:

```
SELECT REPLACE(airline_name, 'Air', 'Aero') AS modified_name FROM airline;
```

Database Explorer Database Sessions

Table: post (modified_name:text)

	modified_name
18	Alitalia
19	Iberia
20	Vietnam Aerolines
21	Aeroflot
22	Aero China
23	China Eastern
24	China Southern
25	Aero India
26	Thai Aeroways
27	KLM
28	Swiss International Aero Lines
29	Austrian Aerolines
30	SAS Scandinavian Aerolines
31	Alitalia
32	Iberia
33	Vietnam Aerolines
34	Aeroflot
35	Aero China
36	China Eastern
37	China Southern
38	Aero India

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]] 1:75 LF UTF-8 4 spaces

Database Explorer Database Sessions

Table: post (modified_name:text)

	modified_name
38	Aero India
39	Thai Aeroways
40	KLM
41	Swiss International Aero Lines
42	Austrian Aerolines
43	SAS Scandinavian Aerolines
44	Alitalia
45	Iberia
46	Vietnam Aerolines
47	Aeroflot
48	Aero China
49	China Eastern
50	China Southern
51	Aero India
52	Thai Aeroways
53	KLM
54	Swiss International Aero Lines
55	Austrian Aerolines
56	SAS Scandinavian Aerolines
57	Alitalia
58	Iberia

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]] 1:75 LF UTF-8 4 spaces

Database Explorer Database Sessions

Table: post (modified_name:text)

	modified_name
59	Vietnam Aerolines
60	Aeroflot
61	Aero China
62	China Eastern
63	China Southern
64	Aero India
65	Thai Aeroways
66	KLM
67	Swiss International Aero Lines
68	Austrian Aerolines
69	SAS Scandinavian Aerolines
70	Alitalia
71	Iberia
72	Vietnam Aerolines
73	Aeroflot
74	Aero China
75	China Eastern
76	China Southern
77	Aero India
78	Thai Aeroways
79	KLM

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Table: post (modified_name:text)

	modified_name
80	Swiss International Aero Lines
81	Austrian Aerolines
82	SAS Scandinavian Aerolines
83	Alitalia
84	Iberia
85	Vietnam Aerolines
86	Aeroflot
87	Aero China
88	China Eastern
89	China Southern
90	Aero India
91	Thai Aeroways
92	KLM
93	Swiss International Aero Lines
94	Austrian Aerolines
95	SAS Scandinavian Aerolines
96	Alitalia
97	Iberia
98	Vietnam Aerolines
99	Aeroflot
100	Aero China

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Table: modified_name:text

	modified_name
101	China Eastern
102	China Southern
103	Aero India
104	Thai Aeroways
105	KLM
106	Swiss International Aero Lines
107	Austrian Aerolines
108	SAS Scandinavian Aerolines
109	Alitalia
110	Iberia
111	Vietnam Aerolines
112	Aeroflot
113	Aero China
114	China Eastern
115	China Southern
116	Aero India
117	Thai Aeroways
118	KLM
119	Swiss International Aero Lines
120	Austrian Aerolines
121	SAS Scandinavian Aerolines

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Table: modified_name:text

	modified_name
122	Alitalia
123	Iberia
124	Vietnam Aerolines
125	Aeroflot
126	Aero China
127	China Eastern
128	China Southern
129	Aero India
130	Thai Aeroways
131	KLM
132	Swiss International Aero Lines
133	Austrian Aerolines
134	SAS Scandinavian Aerolines
135	Alitalia
136	Iberia
137	Vietnam Aerolines
138	Aeroflot
139	Aero China
140	China Eastern
141	China Southern
142	Aero India

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

ase > Output modified_name:text

taba:	modified_name
post	143 Thai Aeroways
	144 KLM
	145 Swiss International Aero Lines
	146 Austrian Aerolines
	147 SAS Scandinavian Aerolines
	148 Alitalia
	149 Iberia
	150 Vietnam Aerolines
	151 Aeroflot
	152 Aero China
	153 China Eastern
	154 China Southern
	155 Aero India
	156 Thai Aeroways
	157 KLM
	158 Swiss International Aero Lines
	159 Austrian Aerolines
	160 SAS Scandinavian Aerolines
	161 Alitalia
	162 Iberia
	163 Vietnam Aerolines

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

ase > Output modified_name:text

taba:	modified_name
post	164 Aeroflot
	165 Aero China
	166 China Eastern
	167 China Southern
	168 Aero India
	169 Thai Aeroways
	170 KLM
	171 Swiss International Aero Lines
	172 Austrian Aerolines
	173 SAS Scandinavian Aerolines
	174 Alitalia
	175 Iberia
	176 Vietnam Aerolines
	177 Aeroflot
	178 Aero China
	179 China Eastern
	180 China Southern
	181 Aero India
	182 Thai Aeroways
	183 KLM
	184 Swiss International Aero Lines

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Table: modified_name:text

	modified_name
185	Austrian Aerolines
186	SAS Scandinavian Aerolines
187	Alitalia
188	Iberia
189	Vietnam Aerolines
190	Aeroflot
191	Aero China
192	China Eastern
193	China Southern
194	Aero India
195	Thai Airways
196	KLM
197	Swiss International Aero Lines
198	Austrian Aerolines
199	SAS Scandinavian Aerolines
200	Alitalia
201	KazAero
202	AeroEasy
203	FlyHigh
204	FlyFly

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Table: airline_uppercase:text

	airline_uppercase
186	SAS SCANDINAVIAN AIRLINES
187	ALITALIA
188	IBERIA
189	VIETNAM AIRLINES
190	AEROFLOT
191	AIR CHINA
192	CHINA EASTERN
193	CHINA SOUTHERN
194	AIR INDIA
195	THAI AIRWAYS
196	KLM
197	SWISS INTERNATIONAL AIR LINES
198	AUSTRIAN AIRLINES
199	SAS SCANDINAVIAN AIRLINES
200	ALITALIA
201	KAZAIR
202	AIREASY
203	FLYHIGH
204	FLYFLY

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer

Database Sessions

Output modified_name:text

Table modified_name

Post 1 American Aerolines
2 British Aeroways
3 Lufthansa
4 Aero France
5 Emirates
6 Qatar Aeroways
7 Singapore Aerolines
8 Cathay Pacific
9 Japan Aerolines
10 Aero Canada
11 United Aerolines
12 Delta Aerolines
13 KLM Royal Dutch Aerolines
14 Aero New Zealand
15 Malaysia Aerolines
16 Thai Aeroways
17 South African Aeroways

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

```
1 ✓ SELECT REPLACE(airline_name, 'Air', 'Aero') AS modified_name FROM airline;
```

Database Explorer

Database Sessions

Output modified_name:text

Table modified_name

Post 18 Alitalia
19 Iberia
20 Vietnam Aerolines
21 Aeroflot
22 Aero China
23 China Eastern
24 China Southern
25 Aero India
26 Thai Aeroways
27 KLM
28 Swiss International Aero Lines
29 Austrian Aerolines
30 SAS Scandinavian Aerolines
31 Alitalia
32 Iberia
33 Vietnam Aerolines
34 Aeroflot
35 Aero China
36 China Eastern
37 China Southern
38 Aero India

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

```
1 ✓ SELECT REPLACE(airline_name, 'Air', 'Aero') AS modified_name FROM airline;
```

Database Explorer Database Sessions

Output modified_name:text

	modified_name
38	Aero India
39	Thai Aereways
40	KLM
41	Swiss International Aero Lines
42	Austrian Aerolines
43	SAS Scandinavian Aerolines
44	Alitalia
45	Iberia
46	Vietnam Aerolines
47	Aeroflot
48	Aero China
49	China Eastern
50	China Southern
51	Aero India
52	Thai Aereways
53	KLM
54	Swiss International Aero Lines
55	Austrian Aerolines
56	SAS Scandinavian Aerolines
57	Alitalia
58	Iberia

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Output modified_name:text

	modified_name
59	Vietnam Aerolines
60	Aeroflot
61	Aero China
62	China Eastern
63	China Southern
64	Aero India
65	Thai Aereways
66	KLM
67	Swiss International Aero Lines
68	Austrian Aerolines
69	SAS Scandinavian Aerolines
70	Alitalia
71	Iberia
72	Vietnam Aerolines
73	Aeroflot
74	Aero China
75	China Eastern
76	China Southern
77	Aero India
78	Thai Aereways
79	KLM

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Output modified_name:text

	modified_name
80	Swiss International Aero Lines
81	Austrian Aerolines
82	SAS Scandinavian Aerolines
83	Alitalia
84	Iberia
85	Vietnam Aerolines
86	Aeroflot
87	Aero China
88	China Eastern
89	China Southern
90	Aero India
91	Thai Aeroways
92	KLM
93	Swiss International Aero Lines
94	Austrian Aerolines
95	SAS Scandinavian Aerolines
96	Alitalia
97	Iberia
98	Vietnam Aerolines
99	Aeroflot
100	Aero China

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Output modified_name:text

	modified_name
101	China Eastern
102	China Southern
103	Aero India
104	Thai Aeroways
105	KLM
106	Swiss International Aero Lines
107	Austrian Aerolines
108	SAS Scandinavian Aerolines
109	Alitalia
110	Iberia
111	Vietnam Aerolines
112	Aeroflot
113	Aero China
114	China Eastern
115	China Southern
116	Aero India
117	Thai Aeroways
118	KLM
119	Swiss International Aero Lines
120	Austrian Aerolines
121	SAS Scandinavian Aerolines

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Output modified_name:text

	modified_name
122	Alitalia
123	Iberia
124	Vietnam Aerolines
125	Aeroflot
126	Aero China
127	China Eastern
128	China Southern
129	Aero India
130	Thai Aeroways
131	KLM
132	Swiss International Aero Lines
133	Austrian Aerolines
134	SAS Scandinavian Aerolines
135	Alitalia
136	Iberia
137	Vietnam Aerolines
138	Aeroflot
139	Aero China
140	China Eastern
141	China Southern
142	Aero India

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Output modified_name:text

	modified_name
143	Thai Aeroways
144	KLM
145	Swiss International Aero Lines
146	Austrian Aerolines
147	SAS Scandinavian Aerolines
148	Alitalia
149	Iberia
150	Vietnam Aerolines
151	Aeroflot
152	Aero China
153	China Eastern
154	China Southern
155	Aero India
156	Thai Aeroways
157	KLM
158	Swiss International Aero Lines
159	Austrian Aerolines
160	SAS Scandinavian Aerolines
161	Alitalia
162	Iberia
163	Vietnam Aerolines

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer

Database Sessions

modified_name:text

	modified_name
164	Aeroflot
165	Aero China
166	China Eastern
167	China Southern
168	Aero India
169	Thai Aeroways
170	KLM
171	Swiss International Aero Lines
172	Austrian Aerolines
173	SAS Scandinavian Aerolines
174	Alitalia
175	Iberia
176	Vietnam Aerolines
177	Aeroflot
178	Aero China
179	China Eastern
180	China Southern
181	Aero India
182	Thai Aeroways
183	KLM
184	Swiss International Aero Lines

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer

Database Sessions

modified_name:text

	modified_name
185	Austrian Aerolines
186	SAS Scandinavian Aerolines
187	Alitalia
188	Iberia
189	Vietnam Aerolines
190	Aeroflot
191	Aero China
192	China Eastern
193	China Southern
194	Aero India
195	Thai Aeroways
196	KLM
197	Swiss International Aero Lines
198	Austrian Aerolines
199	SAS Scandinavian Aerolines
200	Alitalia
201	KazAero
202	AeroEasy
203	FlyHigh
204	FlyFly

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

```
SELECT REPLACE(airline_name, 'Air', 'Aero') AS modified_name FROM airline;
```

3. Find all flight numbers that coordinates with both airline 1 and airline

The screenshot shows a PostgreSQL database interface. In the top right, there's a 'console_4 [postgres@localhost [2]]' tab. Below it, the 'Output' tab displays the results of the following SQL query:

```
SELECT flight_id FROM flights WHERE airline_id IN (1, 2)
GROUP BY flight_id HAVING COUNT(DISTINCT airline_id) = 2;
```

```
SELECT flight_id FROM flights WHERE airline_id IN (1, 2)
GROUP BY flight_id HAVING COUNT(DISTINCT airline_id) = 2;
```

4. Retrieve airports that contain the word "Regional" and "Air" in their names.

The screenshot shows a PostgreSQL database interface. In the top right, there's a 'console_4 [postgres@localhost [2]]' tab. Below it, the 'Output' tab displays the results of the following SQL query:

```
SELECT airport_name FROM airport WHERE airport_name
ILIKE '%Regional%' AND airport_name ILIKE '%Air%';
```

```
SELECT airport_name FROM airport WHERE airport_name
ILIKE '%Regional%' AND airport_name ILIKE '%Air%';
```

5. Retrieve passenger names and format their birth dates as 'Month DD, YYYY'..o

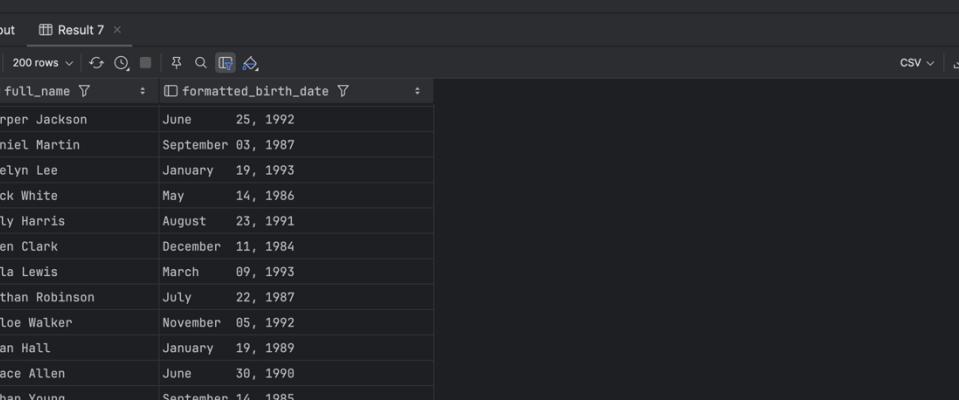
The screenshot shows a PostgreSQL database interface with a query editor and a results table.

Query Editor:

```
SELECT first_name || ' ' || last_name AS full_name,
       TO_CHAR(date_of_birth, 'Month DD, YYYY') AS formatted_birth_date
  FROM passengers;
```

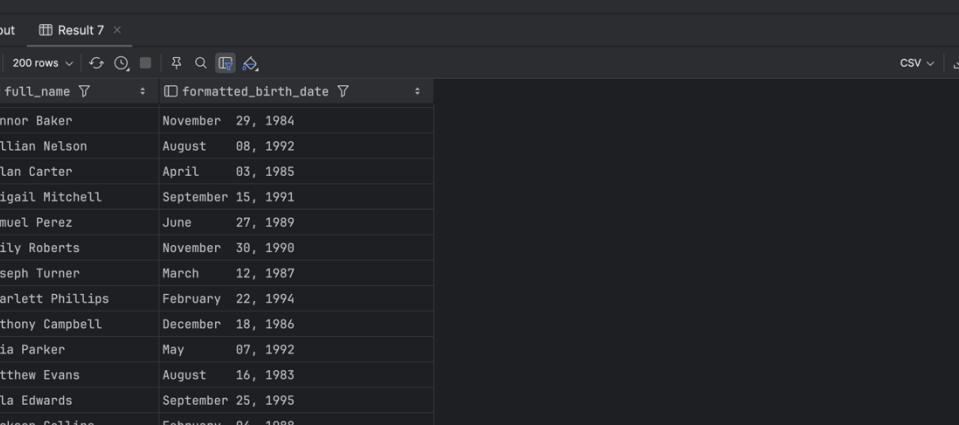
Results Table:

taba:	full_name	formatted_birth_date
post	1 John Smith	March 12, 1985
	2 Emma Johnson	July 24, 1990
	3 Liam Williams	November 05, 1988
	4 Olivia Brown	January 18, 1992
	5 Noah Jones	September 30, 1983
	6 Ava Garcia	June 14, 1995
	7 William Miller	December 22, 1987
	8 Sophia Davis	April 09, 1991
	9 James Martinez	August 17, 1989
	10 Isabella Hernandez	February 26, 1993
	11 Benjamin Lopez	October 03, 1984
	12 Mia Gonzalez	May 11, 1996
	13 Lucas Wilson	July 07, 1986
	14 Charlotte Anderson	September 20, 1994
	15 Henry Thomas	November 29, 1982
	16 Amelia Taylor	March 08, 1990
	17 Alexander Moore	December 15, 1985



The screenshot shows the Database Explorer interface in pgAdmin. The current session is "console_4 [postgres@localhost [2]]". The table "people" is selected, displaying 200 rows of data. The columns are "id", "full_name", and "formatted_birth_date". The data includes names like Harper Jackson, Daniel Martin, Evelyn Lee, Jack White, Lily Harris, Owen Clark, Ella Lewis, Nathan Robinson, Chloe Walker, Ryan Hall, Grace Allen, Ethan Young, Sofia King, Logan Wright, Victoria Scott, Caleb Torres, Zoe Nguyen, Isaac Hill, Madison Flores, Levi Green, and Hannah Adams, along with their respective birth dates.

	full_name	formatted_birth_date
18	Harper Jackson	June 25, 1992
19	Daniel Martin	September 03, 1987
20	Evelyn Lee	January 19, 1993
21	Jack White	May 14, 1986
22	Lily Harris	August 23, 1991
23	Owen Clark	December 11, 1984
24	Ella Lewis	March 09, 1993
25	Nathan Robinson	July 22, 1987
26	Chloe Walker	November 05, 1992
27	Ryan Hall	January 19, 1989
28	Grace Allen	June 30, 1990
29	Ethan Young	September 14, 1985
30	Sofia King	April 21, 1994
31	Logan Wright	February 18, 1988
32	Victoria Scott	December 07, 1991
33	Caleb Torres	August 30, 1983
34	Zoe Nguyen	January 16, 1995
35	Isaac Hill	March 25, 1987
36	Madison Flores	October 12, 1990
37	Levi Green	July 04, 1986
38	Hannah Adams	May 20, 1993



The screenshot shows a PostgreSQL database browser interface. The title bar indicates the connection is to 'console_4 [postgres@localhost [2]]'. The main area displays a table named 'people' with three columns: 'id', 'full_name', and 'formatted_birth_date'. The table contains 59 rows of data, each representing a person's name and birth date. The data is as follows:

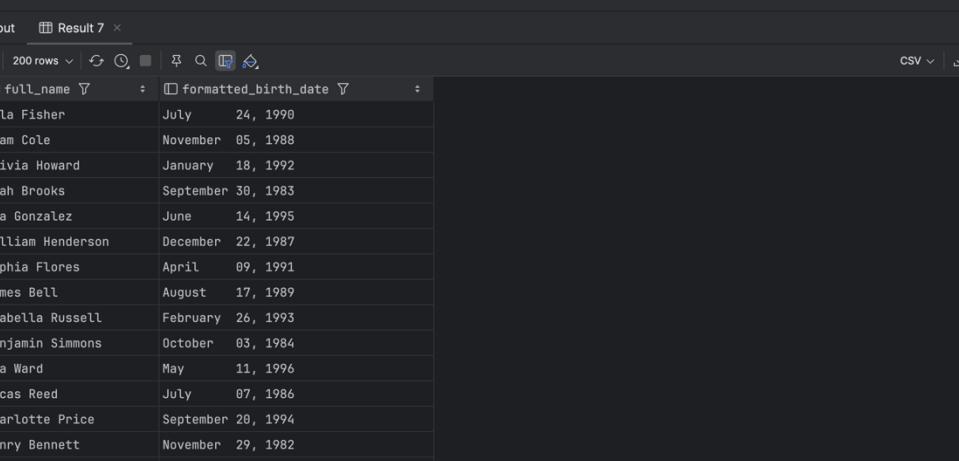
	full_name	formatted_birth_date
39	Connor Baker	November 29, 1984
40	Lillian Nelson	August 08, 1992
41	Dylan Carter	April 03, 1985
42	Abigail Mitchell	September 15, 1991
43	Samuel Perez	June 27, 1989
44	Emily Roberts	November 30, 1990
45	Joseph Turner	March 12, 1987
46	Scarlett Phillips	February 22, 1994
47	Anthony Campbell	December 18, 1986
48	Aria Parker	May 07, 1992
49	Matthew Evans	August 16, 1983
50	Ella Edwards	September 25, 1995
51	Jackson Collins	February 04, 1988
52	Samantha Stewart	June 11, 1991
53	Gabriel Sanchez	October 23, 1984
54	Nora Morris	January 19, 1990
55	Carter Rogers	July 06, 1987
56	Victoria Reed	March 29, 1993
57	Wyatt Cook	November 14, 1985
58	Camila Morgan	August 02, 1992
59	Henry Bell	May 26, 1986

The screenshot shows the Database Explorer interface in pgAdmin. The current session is 'console_4 [postgres@localhost [2]]'. The table 'people' is selected, displaying 20 rows of data with columns 'id', 'full_name', and 'formatted_birth_date'. The data includes names like Scarlett Murphy, Eli Bailey, Aurora Rivera, Andrew Cooper, Luna Richardson, Joshua Cox, Zoe Howard, Nathan Ward, Hannah Torres, Ryan Peterson, Madeline Gray, Evan Ramirez, Grace James, Isaac Watson, Lilly Brooks, Caleb Kelly, Ella Sanders, Luke Price, Avery Bennett, Jack Wood, and Zoe Barnes, along with their respective birth dates.

	full_name	formatted_birth_date
1	Scarlett Murphy	December 15, 1995
2	Eli Bailey	March 21, 1988
3	Aurora Rivera	July 08, 1991
4	Andrew Cooper	September 30, 1984
5	Luna Richardson	February 14, 1990
6	Joshua Cox	June 18, 1987
7	Zoe Howard	January 05, 1993
8	Nathan Ward	September 12, 1986
9	Hannah Torres	April 17, 1992
10	Ryan Peterson	November 29, 1983
11	Madeline Gray	August 21, 1995
12	Evan Ramirez	February 09, 1988
13	Grace James	May 25, 1991
14	Isaac Watson	August 18, 1984
15	Lilly Brooks	December 02, 1990
16	Caleb Kelly	March 15, 1987
17	Ella Sanders	July 11, 1993
18	Luke Price	June 20, 1985
19	Avery Bennett	September 28, 1992
20	Jack Wood	November 09, 1986
21	Zoe Barnes	January 23, 1995

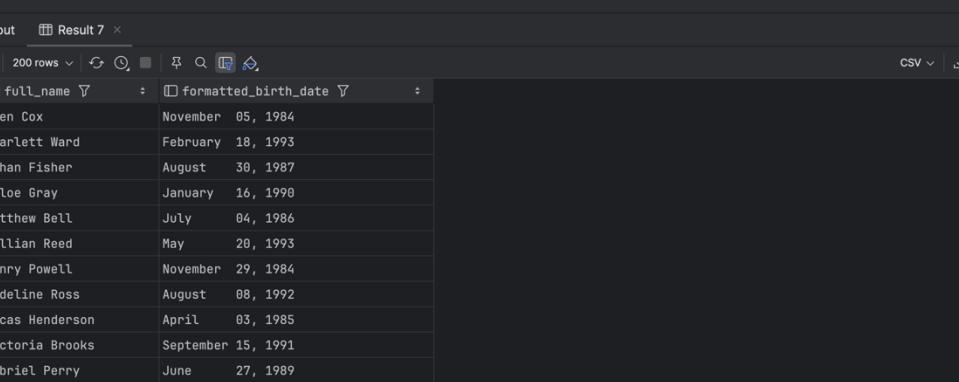
The screenshot shows the Database Explorer interface in pgAdmin. The title bar indicates the connection is to 'console_4 [postgres@localhost [2]]'. The main area displays a table named 'people' with two columns: 'full_name' and 'formatted_birth_date'. The table has 100 rows, each containing a unique ID from 81 to 180 and a corresponding name and birth date. The 'full_name' column is sorted alphabetically by last name, and the 'formatted_birth_date' column is sorted chronologically by birth date.

	full_name	formatted_birth_date
81	Mason Ross	April 06, 1988
82	Chloe Henderson	August 19, 1991
83	Henry Cole	October 12, 1984
84	Lillian Jenkins	February 28, 1990
85	Owen Perry	May 30, 1987
86	Hannah Powell	September 14, 1993
87	Alexander Long	November 21, 1985
88	Amelia Patterson	March 03, 1992
89	Benjamin Hughes	July 17, 1983
90	Sophia Flores	October 26, 1995
91	Daniel Washington	January 19, 1988
92	Mia Butler	June 02, 1991
93	Lucas Simmons	September 28, 1984
94	Charlotte Foster	December 15, 1990
95	Ethan Gonzales	March 22, 1987
96	Avery Bryant	August 11, 1993
97	Matthew Alexander	May 04, 1985
98	Ella Russell	October 19, 1992
99	Jackson Griffin	November 30, 1986
100	Harper Diaz	February 15, 1995
101	Aiden Hayes	March 12, 1985



The screenshot shows the pgAdmin interface with the Database Explorer open. A table named 'people' is selected, displaying 22 rows of data with columns 'full_name' and 'formatted_birth_date'. The data includes names like Ella Fisher, Liam Cole, Olivia Howard, etc., along with their birth dates.

	full_name	formatted_birth_date
102	Ella Fisher	July 24, 1990
103	Liam Cole	November 05, 1988
104	Olivia Howard	January 18, 1992
105	Noah Brooks	September 30, 1983
106	Ava Gonzalez	June 14, 1995
107	William Henderson	December 22, 1987
108	Sophia Flores	April 09, 1991
109	James Bell	August 17, 1989
110	Isabella Russell	February 26, 1993
111	Benjamin Simmons	October 03, 1984
112	Mia Ward	May 11, 1996
113	Lucas Reed	July 07, 1986
114	Charlotte Price	September 28, 1994
115	Henry Bennett	November 29, 1982
116	Amelia Gray	March 08, 1990
117	Alexander Powell	December 15, 1985
118	Harper Long	June 25, 1992
119	Daniel Patterson	September 03, 1987
120	Evelyn Hughes	January 19, 1993
121	Jackson Foster	April 12, 1986
122	Avery Howard	July 23, 1991



The screenshot shows a PostgreSQL database browser interface. The top bar displays the connection information: 'pp' and 'main' under 'Database Explorer', and 'console_4 [postgres@localhost [2]]' under 'Database Sessions'. The main area is titled 'Tx' and shows the 'Output' tab selected, displaying the results of a query against the 'post' table. The table has three columns: 'id', 'full_name', and 'formatted_birth_date'. The data consists of 43 rows, each containing an ID number and a name followed by a birth date in a specific format.

	full_name	formatted_birth_date
123	Owen Cox	November 05, 1984
124	Scarlett Ward	February 18, 1993
125	Ethan Fisher	August 30, 1987
126	Chloe Gray	January 16, 1990
127	Matthew Bell	July 04, 1986
128	Lillian Reed	May 20, 1993
129	Henry Powell	November 29, 1984
130	Madeline Ross	August 08, 1992
131	Lucas Henderson	April 03, 1985
132	Victoria Brooks	September 15, 1991
133	Gabriel Perry	June 27, 1989
134	Nora Bailey	January 19, 1990
135	Carter James	July 06, 1987
136	Aurora Bennett	March 29, 1993
137	Wyatt Gray	November 14, 1985
138	Camila Ward	August 02, 1992
139	Henry Ross	May 26, 1986
140	Scarlett Henderson	December 15, 1995
141	Eli Gray	March 21, 1988
142	Grace Ross	July 08, 1991
143	Isaac Ward	September 30, 1984

The screenshot shows the Database Explorer interface in pgAdmin. The current session is 'console_4 [postgres@localhost [2]]'. The table 'people' is selected, displaying 20 rows of data:

	full_name	formatted_birth_date
144	Lily Bell	February 14, 1990
145	Caleb Brooks	June 18, 1987
146	Ella Foster	January 05, 1993
147	Luke Howard	September 12, 1985
148	Avery Ross	April 17, 1992
149	Jack Bell	November 29, 1983
150	Zoe Brooks	August 21, 1995
151	Mason Ward	April 06, 1988
152	Chloe Gray	August 19, 1991
153	Henry Foster	October 12, 1984
154	Lillian Ross	December 28, 1990
155	Owen Howard	May 30, 1987
156	Hannah Ward	September 14, 1993
157	Alexander Ross	November 21, 1985
158	Amelia Brooks	March 03, 1992
159	Benjamin Ward	July 17, 1983
160	Sophia Ross	October 26, 1995
161	Daniel Gray	January 19, 1988
162	Mia Ross	June 02, 1991
163	Lucas Ward	September 28, 1984
164	Charlotte Bell	December 15, 1990

The screenshot shows the Database Explorer interface in pgAdmin. The title bar indicates the connection is to 'console_4 [postgres@localhost [2]]'. The main area displays a table named 'post' with three columns: 'id', 'full_name', and 'formatted_birth_date'. The table contains 20 rows of data, each representing a person's name and birth date. The 'full_name' column lists names like Ethan Brooks, Avery Foster, Matthew Howard, etc., and the 'formatted_birth_date' column shows dates like March 22, 1987, August 11, 1993, May 04, 1985, etc.

	full_name	formatted_birth_date
165	Ethan Brooks	March 22, 1987
166	Avery Foster	August 11, 1993
167	Matthew Howard	May 04, 1985
168	Ela Ross	October 19, 1992
169	Jackson Ward	November 30, 1986
170	Harper Brooks	February 15, 1995
171	Aiden Foster	March 21, 1988
172	Ela Ward	July 08, 1991
173	Liam Ross	September 30, 1984
174	Olivia Brooks	February 14, 1990
175	Noah Ward	June 18, 1987
176	Ava Ross	January 05, 1993
177	William Brooks	September 12, 1985
178	Sophia Ward	April 17, 1992
179	James Ross	November 29, 1983
180	Isabella Brooks	August 21, 1995
181	Benjamin Ward	April 06, 1988
182	Mia Ross	August 19, 1991
183	Lucas Brooks	October 12, 1984
184	Charlotte Ward	December 28, 1990
185	Ethan Ross	May 30, 1987

The screenshot shows a PostgreSQL database console interface. The title bar indicates the session is connected to 'postgres@localhost [2]' on 'console_4'. The main area displays a table named 'passenger' with three columns: 'id', 'full_name', and 'formatted_birth_date'. The table has 200 rows, each containing a unique ID and a full name followed by a formatted birth date. The data includes names like Ethan Ross, Avery Brooks, Matthew Ward, Ella Ross, Jackson Brooks, Harper Ward, Aiden Ross, Ella Brooks, Liam Ward, Olivia Ross, Noah Brooks, Ava Ward, William Ross, Sophia Brooks, James Ward, and Isabella Ross, with birth dates ranging from May 30, 1987, to February 15, 1995.

	full_name	formatted_birth_date
185	Ethan Ross	May 30, 1987
186	Avery Brooks	September 14, 1993
187	Matthew Ward	November 21, 1985
188	Ella Ross	March 03, 1992
189	Jackson Brooks	July 17, 1983
190	Harper Ward	October 26, 1995
191	Aiden Ross	January 19, 1988
192	Ella Brooks	June 02, 1991
193	Liam Ward	September 28, 1984
194	Olivia Ross	December 15, 1990
195	Noah Brooks	March 22, 1987
196	Ava Ward	August 11, 1993
197	William Ross	May 04, 1985
198	Sophia Brooks	October 19, 1992
199	James Ward	November 30, 1986
200	Isabella Ross	February 15, 1995

```
SELECT first_name || ' ' || last_name AS full_name,
       TO_CHAR(date_of_birth, 'Month DD, YYYY') AS formatted_birth_date
  FROM passengers;
```

6. Find flight numbers that have been delayed based on the actual arrival time.

Database Explorer **console_4 [postgres@localhost [2]]**

```
1 ✓ SELECT flight_id, sch_arrival_time,act_arrival_time,(act_arrival_time - sch_arrival_time)
2 AS delay_duration FROM flights WHERE act_arrival_time > sch_arrival_time;
```

Database Sessions

Tx	Output	Result 8		
ase	flight_id	sch_arrival_time	act_arrival_time	delay_duration
post	1	2025-09-01 11:45:00.000000	2025-09-01 11:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
C	2	2025-09-01 12:30:00.000000	2025-09-01 12:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
3	4	2025-09-01 14:00:00.000000	2025-09-01 14:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
5	6	2025-09-01 15:15:00.000000	2025-09-01 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
7	8	2025-09-01 15:45:00.000000	2025-09-01 15:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
9	10	2025-09-01 17:50:00.000000	2025-09-01 17:55:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
11	12	2025-09-01 18:30:00.000000	2025-09-01 18:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
13	14	2025-09-01 21:55:00.000000	2025-09-01 22:00:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
15	16	2025-09-01 22:30:00.000000	2025-09-01 22:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
17	18	2025-09-01 23:45:00.000000	2025-09-01 23:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
19	20	2025-09-02 09:00:00.000000	2025-09-02 09:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
21	22	2025-09-02 10:45:00.000000	2025-09-02 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
23	24	2025-09-02 12:10:00.000000	2025-09-02 12:15:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
25	26	2025-09-02 13:50:00.000000	2025-09-02 13:55:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
27	28	2025-09-02 15:15:00.000000	2025-09-02 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
29	30	2025-09-02 16:40:00.000000	2025-09-02 16:45:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
31	32	2025-09-02 17:50:00.000000	2025-09-02 17:55:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Consoles > postgres@localhost [2] > **console_4 [postgres@localhost [2]]** 2:23 LF UTF-8 4 spaces ⚙️

Database Explorer **console_4 [postgres@localhost [2]]**

Database Sessions

Tx	Output	Result 8		
ase	flight_id	sch_arrival_time	act_arrival_time	delay_duration
post	18	2025-09-02 19:00:00.000000	2025-09-02 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
C	19	2025-09-02 20:15:00.000000	2025-09-02 20:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
20	21	2025-09-02 21:40:00.000000	2025-09-02 21:45:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
22	23	2025-09-02 22:55:00.000000	2025-09-02 23:00:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
24	25	2025-09-03 00:00:00.000000	2025-09-03 00:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
26	27	2025-09-03 09:15:00.000000	2025-09-03 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
28	29	2025-09-03 09:50:00.000000	2025-09-03 09:55:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
30	31	2025-09-03 10:40:00.000000	2025-09-03 10:45:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
32	33	2025-09-03 12:15:00.000000	2025-09-03 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
34	35	2025-09-03 13:00:00.000000	2025-09-03 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
36	37	2025-09-03 13:45:00.000000	2025-09-03 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
38	39	2025-09-03 14:30:00.000000	2025-09-03 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
40	41	2025-09-03 15:15:00.000000	2025-09-03 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
42	43	2025-09-03 16:00:00.000000	2025-09-03 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
44	45	2025-09-03 16:45:00.000000	2025-09-03 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
46	47	2025-09-03 18:15:00.000000	2025-09-03 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
48	49	2025-09-03 19:00:00.000000	2025-09-03 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
50	51	2025-09-03 19:45:00.000000	2025-09-03 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
52	53	2025-09-03 20:30:00.000000	2025-09-03 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
54	55	2025-09-03 21:15:00.000000	2025-09-03 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
56	57	2025-09-03 22:00:00.000000	2025-09-03 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Consoles > postgres@localhost [2] > **console_4 [postgres@localhost [2]]** 2:23 LF UTF-8 4 spaces ⚙️

Database Explorer Database Sessions Tx > Output Result 8 ×

ase S 180 rows ×

tab:	flight_id	sch_arrival_time	act_arrival_time	delay_duration
post	39	50 2025-09-03 22:45:00.000000	2025-09-03 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	40	51 2025-09-04 00:30:00.000000	2025-09-04 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	41	52 2025-09-04 00:15:00.000000	2025-09-04 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	42	54 2025-09-04 09:15:00.000000	2025-09-04 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	43	55 2025-09-04 10:00:00.000000	2025-09-04 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	44	56 2025-09-04 10:45:00.000000	2025-09-04 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	45	58 2025-09-04 12:15:00.000000	2025-09-04 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	46	59 2025-09-04 13:00:00.000000	2025-09-04 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	47	60 2025-09-04 13:45:00.000000	2025-09-04 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	48	61 2025-09-04 14:30:00.000000	2025-09-04 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	49	62 2025-09-04 15:15:00.000000	2025-09-04 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	50	63 2025-09-04 16:00:00.000000	2025-09-04 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	51	64 2025-09-04 16:45:00.000000	2025-09-04 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	52	65 2025-09-04 17:30:00.000000	2025-09-04 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	53	66 2025-09-04 18:15:00.000000	2025-09-04 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	54	67 2025-09-04 19:00:00.000000	2025-09-04 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	55	68 2025-09-04 19:45:00.000000	2025-09-04 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	56	69 2025-09-04 20:30:00.000000	2025-09-04 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	57	70 2025-09-04 21:15:00.000000	2025-09-04 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	58	71 2025-09-04 22:00:00.000000	2025-09-04 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	59	72 2025-09-04 22:45:00.000000	2025-09-04 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Explorer Database Sessions Tx > Output Result 8 ×

ase S 180 rows ×

tab:	flight_id	sch_arrival_time	act_arrival_time	delay_duration
post	81	96 2025-09-06 00:15:00.000000	2025-09-06 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	82	98 2025-09-06 09:15:00.000000	2025-09-06 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	83	99 2025-09-06 10:00:00.000000	2025-09-06 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	84	100 2025-09-06 10:45:00.000000	2025-09-06 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	85	101 2025-09-06 11:30:00.000000	2025-09-06 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	86	102 2025-09-06 12:15:00.000000	2025-09-06 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	87	103 2025-09-06 13:00:00.000000	2025-09-06 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	88	104 2025-09-06 13:45:00.000000	2025-09-06 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	89	105 2025-09-06 14:30:00.000000	2025-09-06 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	90	106 2025-09-06 15:15:00.000000	2025-09-06 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	91	107 2025-09-06 16:00:00.000000	2025-09-06 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	92	108 2025-09-06 16:45:00.000000	2025-09-06 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	93	109 2025-09-06 17:30:00.000000	2025-09-06 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	94	110 2025-09-06 18:15:00.000000	2025-09-06 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	95	111 2025-09-06 19:00:00.000000	2025-09-06 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	96	112 2025-09-06 19:45:00.000000	2025-09-06 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	97	113 2025-09-06 20:30:00.000000	2025-09-06 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	98	114 2025-09-06 21:15:00.000000	2025-09-06 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	99	115 2025-09-06 22:00:00.000000	2025-09-06 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	100	116 2025-09-06 22:45:00.000000	2025-09-06 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	101	117 2025-09-07 00:30:00.000000	2025-09-07 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]] 2:23 LF UTF-8 4 spaces

Database Explorer Database Sessions

Tx > Output Result 8 ×

ase 180 rows ×

tab:	flight_id	sch_arrival_time	act_arrival_time	delay_duration
post	102	2025-09-07 00:15:00.000000	2025-09-07 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	103	2025-09-07 09:15:00.000000	2025-09-07 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	104	2025-09-07 10:00:00.000000	2025-09-07 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	105	2025-09-07 10:45:00.000000	2025-09-07 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	106	2025-09-07 11:30:00.000000	2025-09-07 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	107	2025-09-07 12:15:00.000000	2025-09-07 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	108	2025-09-07 13:00:00.000000	2025-09-07 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	109	2025-09-07 13:45:00.000000	2025-09-07 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	110	2025-09-07 14:30:00.000000	2025-09-07 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	111	2025-09-07 15:15:00.000000	2025-09-07 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	112	2025-09-07 16:00:00.000000	2025-09-07 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	113	2025-09-07 16:45:00.000000	2025-09-07 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	114	2025-09-07 17:30:00.000000	2025-09-07 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	115	2025-09-07 18:15:00.000000	2025-09-07 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	116	2025-09-07 19:00:00.000000	2025-09-07 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	117	2025-09-07 19:45:00.000000	2025-09-07 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	118	2025-09-07 20:30:00.000000	2025-09-07 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	119	2025-09-07 21:15:00.000000	2025-09-07 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	120	2025-09-07 22:00:00.000000	2025-09-07 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	121	2025-09-07 22:45:00.000000	2025-09-07 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	122	2025-09-08 00:30:00.000000	2025-09-08 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	123	2025-09-08 00:30:00.000000	2025-09-08 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions

Tx > Output Result 8 ×

ase 180 rows ×

flight_id	sch_arrival_time	act_arrival_time	delay_duration
123	2025-09-08 00:15:00.000000	2025-09-08 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
124	2025-09-08 09:15:00.000000	2025-09-08 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
125	2025-09-08 10:00:00.000000	2025-09-08 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
126	2025-09-08 10:45:00.000000	2025-09-08 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
127	2025-09-08 11:30:00.000000	2025-09-08 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
128	2025-09-08 12:15:00.000000	2025-09-08 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
129	2025-09-08 13:00:00.000000	2025-09-08 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
130	2025-09-08 13:45:00.000000	2025-09-08 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
131	2025-09-08 14:30:00.000000	2025-09-08 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
132	2025-09-08 15:15:00.000000	2025-09-08 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
133	2025-09-08 16:00:00.000000	2025-09-08 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
134	2025-09-08 16:45:00.000000	2025-09-08 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
135	2025-09-08 17:30:00.000000	2025-09-08 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
136	2025-09-08 18:15:00.000000	2025-09-08 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
137	2025-09-08 19:00:00.000000	2025-09-08 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
138	2025-09-08 19:45:00.000000	2025-09-08 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
139	2025-09-08 20:30:00.000000	2025-09-08 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
140	2025-09-08 21:15:00.000000	2025-09-08 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
141	2025-09-08 22:00:00.000000	2025-09-08 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
142	2025-09-08 22:45:00.000000	2025-09-08 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
143	2025-09-09 00:30:00.000000	2025-09-09 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions Tx > Output Result 8 ×

ase 180 rows ×

CSV

taba: post	flight_id	sch_arrival_time	act_arrival_time	delay_duration
144	162	2025-09-09 00:15:00.000000	2025-09-09 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
145	164	2025-09-09 09:15:00.000000	2025-09-09 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
146	165	2025-09-09 10:00:00.000000	2025-09-09 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
147	166	2025-09-09 10:45:00.000000	2025-09-09 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
148	167	2025-09-09 11:30:00.000000	2025-09-09 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
149	168	2025-09-09 12:15:00.000000	2025-09-09 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
150	169	2025-09-09 13:00:00.000000	2025-09-09 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
151	170	2025-09-09 13:45:00.000000	2025-09-09 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
152	171	2025-09-09 14:30:00.000000	2025-09-09 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
153	172	2025-09-09 15:15:00.000000	2025-09-09 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
154	173	2025-09-09 16:00:00.000000	2025-09-09 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
155	174	2025-09-09 16:45:00.000000	2025-09-09 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
156	175	2025-09-09 17:30:00.000000	2025-09-09 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
157	176	2025-09-09 18:15:00.000000	2025-09-09 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
158	177	2025-09-09 19:00:00.000000	2025-09-09 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
159	178	2025-09-09 19:45:00.000000	2025-09-09 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
160	179	2025-09-09 20:30:00.000000	2025-09-09 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
161	180	2025-09-09 21:15:00.000000	2025-09-09 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
162	181	2025-09-09 22:00:00.000000	2025-09-09 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
163	182	2025-09-09 22:45:00.000000	2025-09-09 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
164	183	2025-09-10 00:30:00.000000	2025-09-10 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs



The screenshot shows a PostgreSQL database console window titled "console_4 [postgres@localhost [2]]". The query results are displayed in a table with four columns: "flight_id", "sch_arrival_time", "act_arrival_time", and "delay_duration". The data consists of 180 rows, each representing a flight with its scheduled arrival time, actual arrival time, and the duration of the delay. The "delay_duration" column shows values such as "0 years 0 mons 0 days 0 hours 5 mins 0.0 secs". The table has a header row with column names and a footer row indicating 180 rows.

flight_id	sch_arrival_time	act_arrival_time	delay_duration
165	2025-09-10 00:15:00.000000	2025-09-10 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
166	2025-09-10 09:15:00.000000	2025-09-10 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
167	2025-09-10 10:00:00.000000	2025-09-10 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
168	2025-09-10 10:45:00.000000	2025-09-10 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
169	2025-09-10 11:30:00.000000	2025-09-10 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
170	2025-09-10 12:15:00.000000	2025-09-10 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
171	2025-09-10 13:00:00.000000	2025-09-10 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
172	2025-09-10 13:45:00.000000	2025-09-10 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
173	2025-09-10 14:30:00.000000	2025-09-10 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
174	2025-09-10 15:15:00.000000	2025-09-10 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
175	2025-09-10 16:00:00.000000	2025-09-10 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
176	2025-09-10 16:45:00.000000	2025-09-10 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
177	2025-09-10 17:30:00.000000	2025-09-10 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
178	2025-09-10 18:15:00.000000	2025-09-10 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
179	2025-09-10 19:00:00.000000	2025-09-10 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
180	2025-09-10 19:45:00.000000	2025-09-10 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

```
SELECT flight_id, sch_arrival_time, act_arrival_time, (act_arrival_time - sch_arrival_time)
    AS delay_duration FROM flights WHERE act_arrival_time >
sch_arrival_time;
```

7. Create a query that divides passengers into age groups like ‘Young’ and ‘Adult’ based on their birth date. Young passengers age between 18 and 35, Adult passengers age between 36 and 55.

Database Explorer console_4 [postgres@localhost [2]]

```
1 ✓ SELECT first_name || ' ' || last_name AS full_name,
2          EXTRACT(YEAR FROM AGE(CURRENT_DATE, date_of_birth)) AS age,
3          CASE WHEN EXTRACT(YEAR FROM AGE(CURRENT_DATE, date_of_birth)) BETWEEN 18 AND 35 THEN 'Young'
4                WHEN EXTRACT(YEAR FROM AGE(CURRENT_DATE, date_of_birth)) BETWEEN 36 AND 55 THEN 'Adult'
5                ELSE 'Other' END AS age_group FROM passengers;
```

Database Sessions

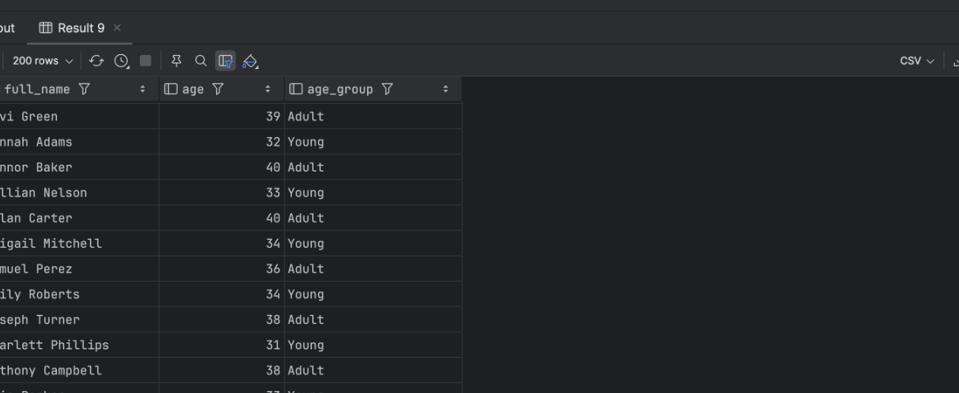
	full_name	age	age_group
1	John Smith	40	Adult
2	Emma Johnson	35	Young
3	Liam Williams	36	Adult
4	Olivia Brown	33	Young
5	Noah Jones	42	Adult
6	Ava Garcia	30	Young
7	William Miller	37	Adult
8	Sophia Davis	34	Young
9	James Martinez	36	Adult
10	Isabella Hernandez	32	Young
11	Benjamin Lopez	41	Adult
12	Mia Gonzalez	29	Young
13	Lucas Wilson	39	Adult
14	Charlotte Anderson	31	Young
15	Henry Thomas	42	Adult

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer console_4 [postgres@localhost [2]]

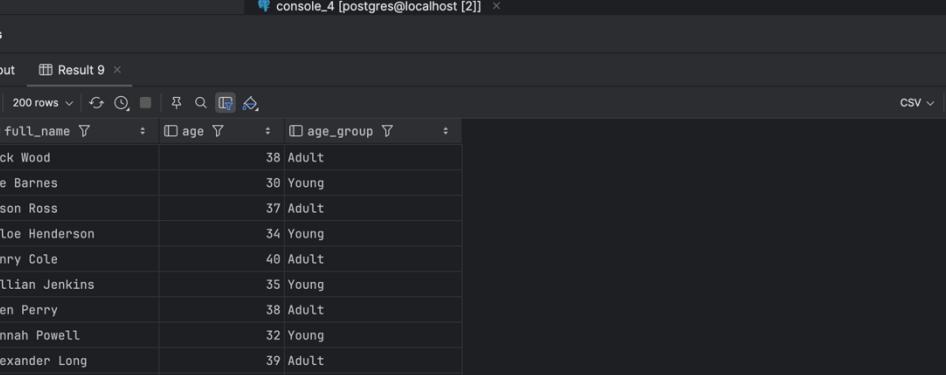
	full_name	age	age_group
16	Amelia Taylor	35	Young
17	Alexander Moore	39	Adult
18	Harper Jackson	33	Young
19	Daniel Martin	38	Adult
20	Evelyn Lee	32	Young
21	Jack White	39	Adult
22	Lily Harris	34	Young
23	Owen Clark	40	Adult
24	Ella Lewis	32	Young
25	Nathan Robinson	38	Adult
26	Chloe Walker	32	Young
27	Ryan Hall	36	Adult
28	Grace Allen	35	Young
29	Ethan Young	40	Adult
30	Sofia King	31	Young
31	Logan Wright	37	Adult
32	Victoria Scott	33	Young
33	Caleb Torres	42	Adult
34	Zoe Nguyen	30	Young
35	Isaac Hill	38	Adult
36	Madison Flores	34	Young

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]



The screenshot shows the Database Explorer interface in pgAdmin. The current session is "console_4 [postgres@localhost [2]]". The table "people" is selected, displaying 57 rows of data. The columns are "id", "full_name", "age", and "age_group". The data includes names like Levi Green, Hannah Adams, Connor Baker, Lillian Nelson, Dylan Carter, Abigail Mitchell, Samuel Perez, Emily Roberts, Joseph Turner, Scarlett Phillips, Anthony Campbell, Aria Parker, Matthew Evans, Ella Edwards, Jackson Collins, Samantha Stewart, Gabriel Sanchez, Nora Morris, Carter Rogers, Victoria Reed, and Wyatt Cook, along with their corresponding ages and age groups (Adult or Young).

	full_name	age	age_group
37	Levi Green	39	Adult
38	Hannah Adams	32	Young
39	Connor Baker	40	Adult
40	Lillian Nelson	33	Young
41	Dylan Carter	40	Adult
42	Abigail Mitchell	34	Young
43	Samuel Perez	36	Adult
44	Emily Roberts	34	Young
45	Joseph Turner	38	Adult
46	Scarlett Phillips	31	Young
47	Anthony Campbell	38	Adult
48	Aria Parker	33	Young
49	Matthew Evans	42	Adult
50	Ella Edwards	30	Young
51	Jackson Collins	37	Adult
52	Samantha Stewart	34	Young
53	Gabriel Sanchez	40	Adult
54	Nora Morris	35	Young
55	Carter Rogers	38	Adult
56	Victoria Reed	32	Young
57	Wyatt Cook	39	Adult



The screenshot shows the Database Explorer interface in pgAdmin. The current session is "console_4 [postgres@localhost [2]]". The main area displays a table named "people" with the following data:

	full_name	age	age_group
79	Jack Wood	38	Adult
80	Zoe Barnes	30	Young
81	Mason Ross	37	Adult
82	Chloe Henderson	34	Young
83	Henry Cole	40	Adult
84	Lillian Jenkins	35	Young
85	Owen Perry	38	Adult
86	Hannah Powell	32	Young
87	Alexander Long	39	Adult
88	Amelia Patterson	33	Young
89	Benjamin Hughes	42	Adult
90	Sophia Flores	29	Young
91	Daniel Washington	37	Adult
92	Mia Butler	34	Young
93	Lucas Simmons	41	Adult
94	Charlotte Foster	34	Young
95	Ethan Gonzales	38	Adult
96	Avery Bryant	32	Young
97	Matthew Alexander	40	Adult
98	Ella Russell	32	Young
99	Jackson Griffin	38	Adult

Database Sessions

Output Result 9

	full_name	age	age_group
100	Harper Diaz	30	Young
101	Aiden Hayes	40	Adult
102	Ela Fisher	35	Young
103	Liam Cole	36	Adult
104	Olivia Howard	33	Young
105	Noah Brooks	42	Adult
106	Ava Gonzalez	30	Young
107	William Henderson	37	Adult
108	Sophia Flores	34	Young
109	James Bell	36	Adult
110	Isabella Russell	32	Young
111	Benjamin Simmons	41	Adult
112	Mia Ward	29	Young
113	Lucas Reed	39	Adult
114	Charlotte Price	31	Young
115	Henry Bennett	42	Adult
116	Amelia Gray	35	Young
117	Alexander Powell	39	Adult
118	Harper Long	33	Young
119	Daniel Patterson	38	Adult
120	Evelyn Hughes	32	Young

Database Explorer console_4 [postgres@localhost [2]]

Database Sessions

Tx > Output Result 9

ase\$ tabl 200 rows v : age : age_group :

	full_name	age	age_group
121	Jackson Foster	39	Adult
122	Avery Howard	34	Young
123	Owen Cox	40	Adult
124	Scarlett Ward	32	Young
125	Ethan Fisher	38	Adult
126	Chloe Gray	35	Young
127	Matthew Bell	39	Adult
128	Lillian Reed	32	Young
129	Henry Powell	40	Adult
130	Madeleine Ross	33	Young
131	Lucas Henderson	40	Adult
132	Victoria Brooks	34	Young
133	Gabriel Perry	36	Adult
134	Nora Bailey	35	Young
135	Carter James	38	Adult
136	Aurora Bennett	32	Young
137	Wyatt Gray	39	Adult
138	Camila Ward	33	Young
139	Henry Ross	39	Adult
140	Scarlett Henderson	29	Young
141	Eli Grav	37	Adult

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

5:55 LF UTF-8 4 spaces ⚙️ 🔔

Database Explorer console_4 [postgres@localhost [2]]

Database Sessions

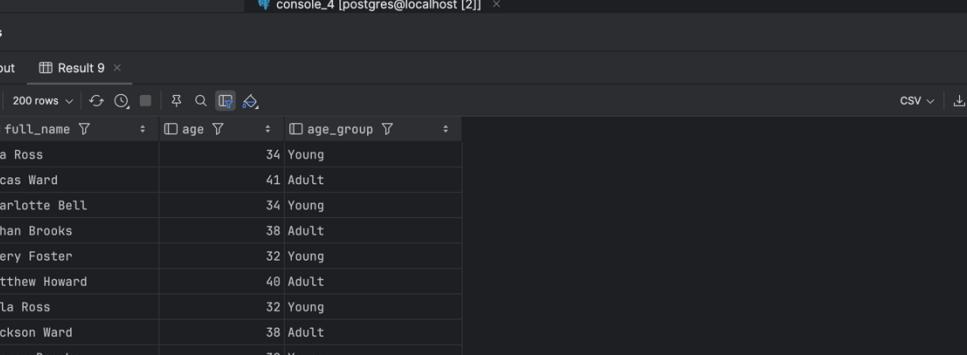
Tx > Output Result 9

ase\$ tabl 200 rows v : age : age_group :

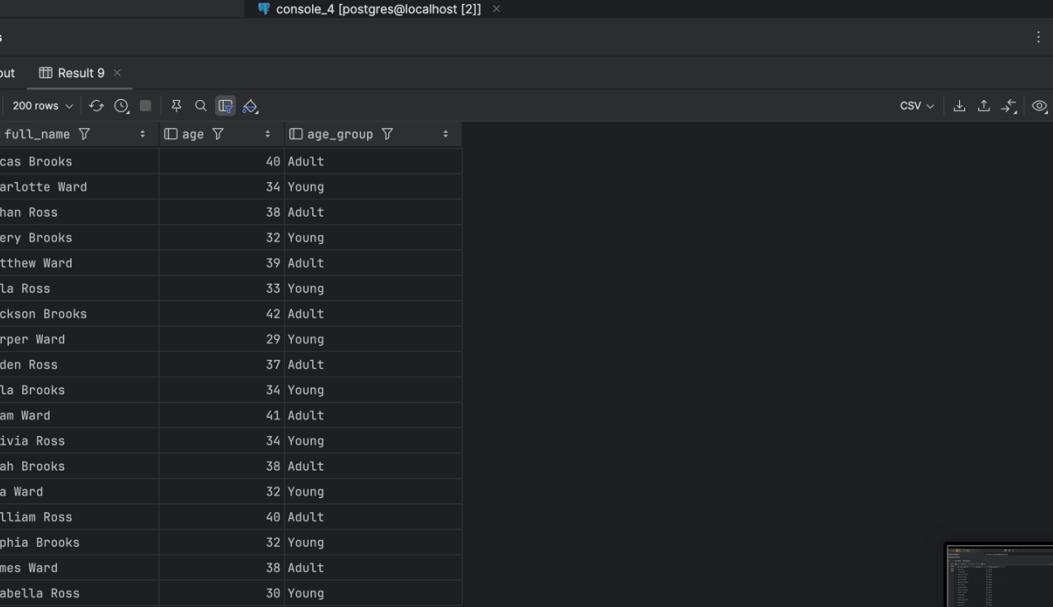
	full_name	age	age_group
142	Grace Ross	34	Young
143	Isaac Ward	41	Adult
144	Lily Bell	35	Young
145	Caleb Brooks	38	Adult
146	Ella Foster	32	Young
147	Luke Howard	40	Adult
148	Avery Ross	33	Young
149	Jack Bell	41	Adult
150	Zoe Brooks	30	Young
151	Mason Ward	37	Adult
152	Chloe Gray	34	Young
153	Henry Foster	40	Adult
154	Lillian Ross	34	Young
155	Owen Howard	38	Adult
156	Hannah Ward	32	Young
157	Alexander Ross	39	Adult
158	Amelia Brooks	33	Young
159	Benjamin Ward	42	Adult
160	Sophia Ross	29	Young
161	Daniel Gray	37	Adult
162	Mia Rose	34	Young

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

5:55 LF UTF-8 4 spaces ⚙️ 🔔



	full_name	age	age_group
162	Mia Ross	34	Young
163	Lucas Ward	41	Adult
164	Charlotte Bell	34	Young
165	Ethan Brooks	38	Adult
166	Avery Foster	32	Young
167	Matthew Howard	40	Adult
168	Ella Ross	32	Young
169	Jackson Ward	38	Adult
170	Harper Brooks	30	Young
171	Aiden Foster	37	Adult
172	Ella Ward	34	Young
173	Liam Ross	41	Adult
174	Olivia Brooks	35	Young
175	Noah Ward	38	Adult
176	Ava Ross	32	Young
177	William Brooks	40	Adult
178	Sophia Ward	33	Young
179	James Ross	41	Adult
180	Isabella Brooks	30	Young
181	Benjamin Ward	37	Adult
182	Mia Ross	34	Young



Database Sessions

Output Result 9

	full_name	age	age_group
183	Lucas Brooks	40	Adult
184	Charlotte Ward	34	Young
185	Ethan Ross	38	Adult
186	Avery Brooks	32	Young
187	Matthew Ward	39	Adult
188	Ella Ross	33	Young
189	Jackson Brooks	42	Adult
190	Harper Ward	29	Young
191	Aiden Ross	37	Adult
192	Ella Brooks	34	Young
193	Liam Ward	41	Adult
194	Olivia Ross	34	Young
195	Noah Brooks	38	Adult
196	Ava Ward	32	Young
197	William Ross	40	Adult
198	Sophia Brooks	32	Young
199	James Ward	38	Adult
200	Isabella Ross	30	Young

```
SELECT first_name || ' ' || last_name AS full_name,
       EXTRACT(YEAR FROM AGE(CURRENT_DATE, date_of_birth)) AS age,
       CASE WHEN EXTRACT(YEAR FROM AGE(CURRENT_DATE, date_of_birth)) BETWEEN
18 AND 35 THEN 'Young'
         WHEN EXTRACT(YEAR FROM AGE(CURRENT_DATE, date_of_birth)) BETWEEN 36
AND 55 THEN 'Adult'
         ELSE 'Other' END AS age_group FROM passengers;
```

8. Create a query that categorizes ticket prices based on their price as "Cheap," "Medium" or "Expensive."

The screenshot shows a PostgreSQL database interface. In the top right, there's a playground window containing the following SQL code:

```
1 ✓ SELECT booking_id, ticket_price,
2          CASE
3              WHEN ticket_price < 100 THEN 'Cheap'
4              WHEN ticket_price BETWEEN 100 AND 300 THEN 'Medium'
5              ELSE 'Expensive'
6          END AS price_category FROM booking;
```

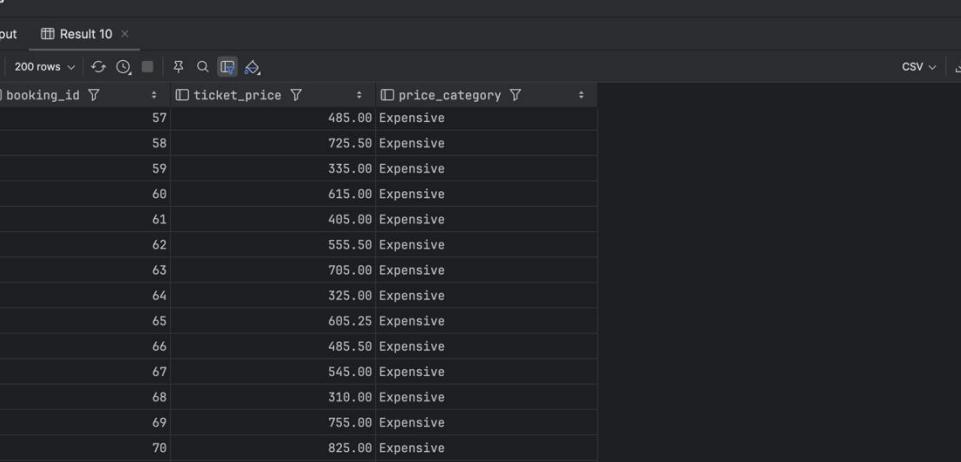
Below the playground is a database session window titled "Result 10". It displays a table with three columns: booking_id, ticket_price, and price_category. The data is as follows:

booking_id	ticket_price	price_category
1	350.50	Expensive
2	420.00	Expensive
3	580.75	Expensive
4	150.00	Medium
5	620.00	Expensive
6	470.25	Expensive
7	530.00	Expensive
8	290.00	Medium
9	760.50	Expensive
10	810.00	Expensive
11	430.75	Expensive
12	620.00	Expensive
13	370.00	Expensive
14	500.50	Expensive

This screenshot shows the same PostgreSQL interface as the previous one, but with a different set of results. The "Result 10" table now contains the following data:

booking_id	ticket_price	price_category
15	690.00	Expensive
16	550.25	Expensive
17	480.00	Expensive
18	720.50	Expensive
19	330.00	Expensive
20	610.00	Expensive
21	410.50	Expensive
22	560.00	Expensive
23	720.75	Expensive
24	310.00	Expensive
25	680.00	Expensive
26	490.25	Expensive
27	530.00	Expensive
28	290.00	Medium
29	760.50	Expensive
30	810.00	Expensive
31	430.75	Expensive
32	620.00	Expensive
33	370.00	Expensive
34	500.50	Expensive
35	690.00	Expensive

	booking_id	ticket_price	price_category
1	36	550.25	Expensive
2	37	480.00	Expensive
3	38	720.50	Expensive
4	39	330.00	Expensive
5	40	610.00	Expensive
6	41	400.00	Expensive
7	42	550.50	Expensive
8	43	700.00	Expensive
9	44	320.00	Expensive
10	45	600.25	Expensive
11	46	480.50	Expensive
12	47	540.00	Expensive
13	48	300.00	Medium
14	49	750.00	Expensive
15	50	820.00	Expensive
16	51	440.50	Expensive
17	52	630.00	Expensive
18	53	380.00	Expensive
19	54	510.00	Expensive
20	55	695.25	Expensive
21	56	555.00	Expensive



Database Sessions

Tx > Output Result 10 ×

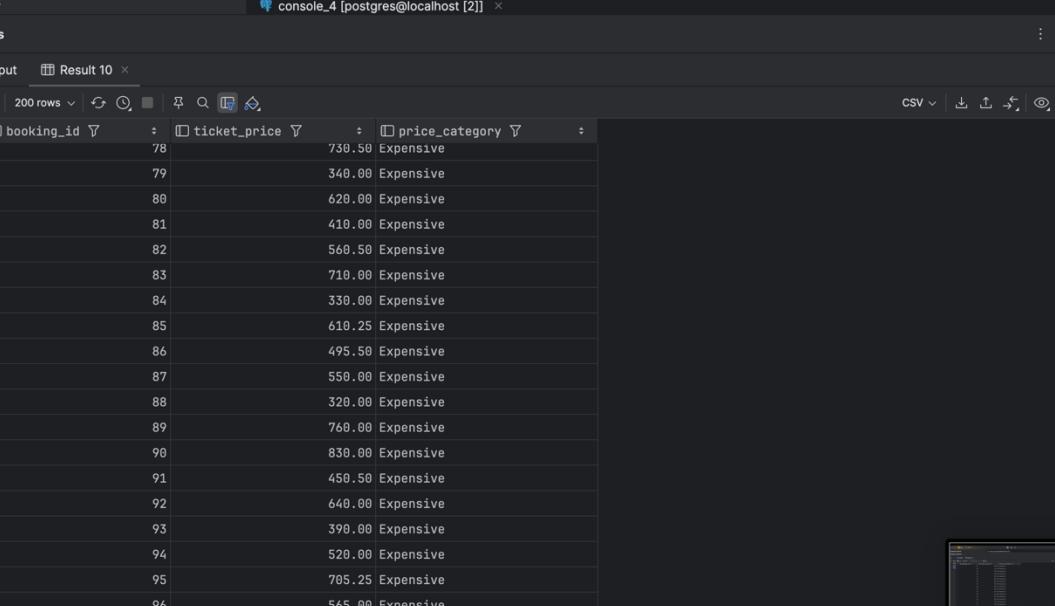
ase 5 200 rows ×

taba: post

booking_id	ticket_price	price_category
57	57	485.00 Expensive
58	58	725.50 Expensive
59	59	335.00 Expensive
60	60	615.00 Expensive
61	61	405.00 Expensive
62	62	555.50 Expensive
63	63	705.00 Expensive
64	64	325.00 Expensive
65	65	605.25 Expensive
66	66	485.50 Expensive
67	67	545.00 Expensive
68	68	310.00 Expensive
69	69	755.00 Expensive
70	70	825.00 Expensive
71	71	445.50 Expensive
72	72	635.00 Expensive
73	73	385.00 Expensive
74	74	515.00 Expensive
75	75	700.25 Expensive
76	76	560.00 Expensive
77	77	490.00 Expensive

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

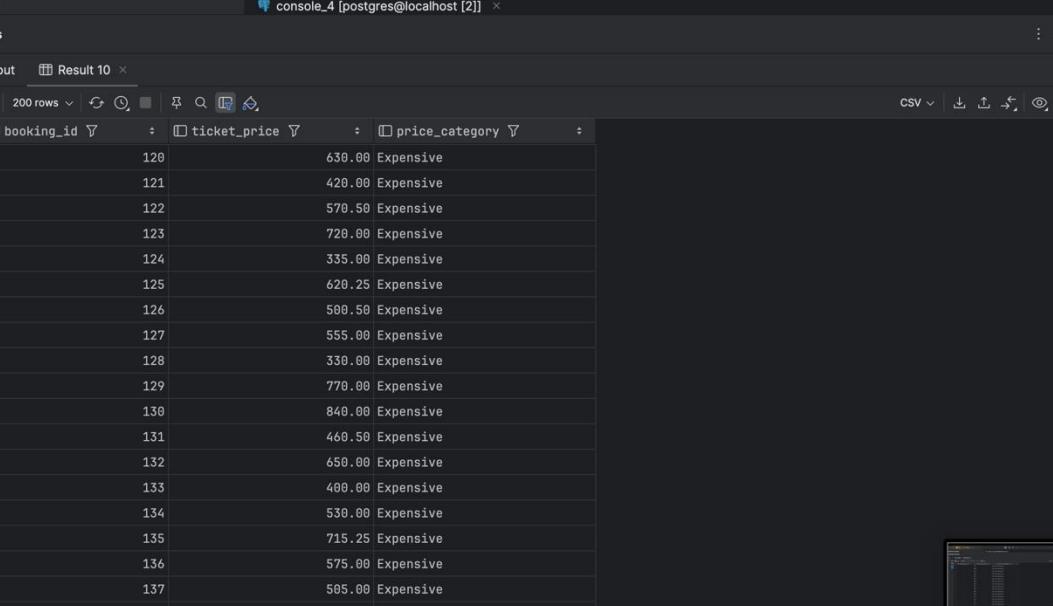
1:1 (211 chars, 5 line breaks) LF UTF-8 4 spaces ⚙️ 🔍



booking_id	ticket_price	price_category
78	730.50	Expensive
79	340.00	Expensive
80	620.00	Expensive
81	410.00	Expensive
82	560.50	Expensive
83	710.00	Expensive
84	330.00	Expensive
85	610.25	Expensive
86	495.50	Expensive
87	550.00	Expensive
88	320.00	Expensive
89	760.00	Expensive
90	830.00	Expensive
91	450.50	Expensive
92	640.00	Expensive
93	390.00	Expensive
94	520.00	Expensive
95	705.25	Expensive
96	565.00	Expensive
97	495.00	Expensive
98	735.50	Expensive

The screenshot shows the Database Explorer interface in pgAdmin. The current session is 'console_4 [postgres@localhost [2]]'. The table 'post' is selected, displaying 20 rows of data. All rows have 'booking_id' values ranging from 99 to 119, 'ticket_price' values ranging from 345.00 to 350.00, and 'price_category' values all labeled as 'Expensive'.

booking_id	ticket_price	price_category
99	345.00	Expensive
100	625.00	Expensive
101	415.00	Expensive
102	565.50	Expensive
103	715.00	Expensive
104	325.00	Expensive
105	615.25	Expensive
106	495.50	Expensive
107	555.00	Expensive
108	325.00	Expensive
109	765.00	Expensive
110	835.00	Expensive
111	455.50	Expensive
112	645.00	Expensive
113	395.00	Expensive
114	525.00	Expensive
115	710.25	Expensive
116	570.00	Expensive
117	500.00	Expensive
118	740.50	Expensive
119	350.00	Expensive



	booking_id	ticket_price	price_category
120	120	630.00	Expensive
121	121	420.00	Expensive
122	122	570.50	Expensive
123	123	720.00	Expensive
124	124	335.00	Expensive
125	125	620.25	Expensive
126	126	500.50	Expensive
127	127	555.00	Expensive
128	128	330.00	Expensive
129	129	770.00	Expensive
130	130	840.00	Expensive
131	131	460.50	Expensive
132	132	650.00	Expensive
133	133	400.00	Expensive
134	134	530.00	Expensive
135	135	715.25	Expensive
136	136	575.00	Expensive
137	137	505.00	Expensive
138	138	745.50	Expensive
139	139	355.00	Expensive
140	140	635.00	Expensive

Database Explorer Database Sessions

Tx > Output Result 10 ×

ase 200 rows 200 rows

base	booking_id	ticket_price	price_category
post	141	425.00	Expensive
post	142	575.50	Expensive
	143	725.00	Expensive
	144	340.00	Expensive
	145	625.25	Expensive
	146	585.50	Expensive
	147	560.00	Expensive
	148	335.00	Expensive
	149	775.00	Expensive
	150	845.00	Expensive
	151	465.50	Expensive
	152	655.00	Expensive
	153	405.00	Expensive
	154	535.00	Expensive
	155	720.25	Expensive
	156	580.00	Expensive
	157	510.00	Expensive
	158	750.50	Expensive
	159	360.00	Expensive
	160	640.00	Expensive
	161	430.00	Expensive

1:1 (211 chars, 5 line breaks) LF UTF-8 4 spaces ⌂ ⓘ

Database Explorer console_4 [postgres@localhost [2]]

Database Sessions

Tx > Output Result 10 ×

ase \$ tabl 200 rows v : ticket_price v : price_category v

booking_id	ticket_price	price_category
162	580.50	Expensive
163	730.00	Expensive
164	345.00	Expensive
165	630.25	Expensive
166	510.50	Expensive
167	565.00	Expensive
168	340.00	Expensive
169	780.00	Expensive
170	850.00	Expensive
171	470.50	Expensive
172	660.00	Expensive
173	410.00	Expensive
174	540.00	Expensive
175	725.25	Expensive
176	585.00	Expensive
177	515.00	Expensive
178	755.50	Expensive
179	365.00	Expensive
180	645.00	Expensive
181	435.00	Expensive
182	585.50	Expensive

Database Consoles > postgres@localhost [2] > Database Consoles > postgres@localhost [2] > 1:1 (211 chars, 5 line breaks) LF UTF-8 4 spaces ⌂ ⌂

Database Explorer console_4 [postgres@localhost [2]]

Database Sessions

Tx > Output Result 10 ×

ase \$ tabl 200 rows v : ticket_price v : price_category v

booking_id	ticket_price	price_category
183	735.00	Expensive
184	350.00	Expensive
185	635.25	Expensive
186	515.50	Expensive
187	570.00	Expensive
188	345.00	Expensive
189	785.00	Expensive
190	855.00	Expensive
191	475.50	Expensive
192	665.00	Expensive
193	415.00	Expensive
194	545.00	Expensive
195	730.25	Expensive
196	590.00	Expensive
197	520.00	Expensive
198	760.50	Expensive
199	370.00	Expensive
200	650.00	Expensive

Database Consoles > postgres@localhost [2] > Database Consoles > postgres@localhost [2] > 1:1 (211 chars, 5 line breaks) LF UTF-8 4 spaces ⌂ ⌂

```
SELECT booking_id,ticket_price,
CASE
    WHEN ticket_price < 100 THEN 'Cheap'
    WHEN ticket_price BETWEEN 100 AND 300 THEN 'Medium'
    ELSE 'Expensive'
END AS price_category FROM booking;
```

9. Find number of airline names in each airline country.

The screenshot shows a PostgreSQL database console interface. The query executed is:

```
SELECT airline_country, COUNT(airline_name) AS number_of_airlines FROM airline GROUP BY airline_country ORDER BY number_of_airlines DESC;
```

The results are displayed in a table:

airline_country	number_of_airlines
China	42
Netherlands	15
Italy	15
Thailand	15
Spain	14
Russia	14
India	14
Sweden	14
Switzerland	14
Austria	14
Vietnam	14
USA	3
France	2
Canada	1
Qatar	1
New Zealand	1
UAE	1

The screenshot shows a PostgreSQL database console interface. The query executed is:

```
SELECT airline_country, COUNT(airline_name) AS number_of_airlines FROM airline GROUP BY airline_country ORDER BY number_of_airlines DESC;
```

The results are displayed in a table:

airline_country	number_of_airlines
USA	3
France	2
Canada	1
Qatar	1
New Zealand	1
UAE	1
Turkey	1
South Africa	1
Brazil	1
Malaysia	1
Poland	1
UK	1
Hong Kong	1
Germany	1
Japan	1
Singapore	1

```
SELECT airline_country, COUNT(airline_name) AS number_of_airlines FROM airline GROUP BY airline_country ORDER BY number_of_airlines DESC;
```

10. Find flights that arrived late according to their actual arrival time compared to the scheduled arrival time.

The screenshot shows a PostgreSQL database interface with two panes. The top pane is the 'Database Explorer' showing connections to 'postgres@localhost' and 'postgres@localhost [2]'. The bottom pane is the 'Database Sessions' showing a query results table and the query itself.

Query:

```
SELECT flight_id, sch_arrival_time, act_arrival_time, (act_arrival_time - sch_arrival_time)
AS delay_duration
FROM flights WHERE act_arrival_time > sch_arrival_time;
```

Results:

flight_id	sch_arrival_time	act_arrival_time	delay_duration
1	2025-09-01 11:45:00.000000	2025-09-01 11:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
2	2025-09-01 12:30:00.000000	2025-09-01 12:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
3	2025-09-01 14:00:00.000000	2025-09-01 14:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
4	2025-09-01 15:15:00.000000	2025-09-01 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
5	2025-09-01 15:45:00.000000	2025-09-01 15:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
6	2025-09-01 17:50:00.000000	2025-09-01 17:55:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
7	2025-09-01 18:30:00.000000	2025-09-01 18:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
8	2025-09-01 21:55:00.000000	2025-09-01 22:00:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
9	2025-09-01 22:30:00.000000	2025-09-01 22:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
10	2025-09-01 23:45:00.000000	2025-09-01 23:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
11	2025-09-02 09:00:00.000000	2025-09-02 09:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
12	2025-09-02 10:45:00.000000	2025-09-02 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
13	2025-09-02 12:10:00.000000	2025-09-02 12:15:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
14	2025-09-02 13:50:00.000000	2025-09-02 13:55:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
15	2025-09-02 15:15:00.000000	2025-09-02 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
16	2025-09-02 16:40:00.000000	2025-09-02 16:45:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

The screenshot shows a continuation of the database interface from the previous one. It displays the same 'Database Explorer' and 'Database Sessions' panes. The results table now contains rows 17 through 48, showing more late flights.

flight_id	sch_arrival_time	act_arrival_time	delay_duration
17	2025-09-02 17:50:00.000000	2025-09-02 17:55:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
18	2025-09-02 19:00:00.000000	2025-09-02 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
19	2025-09-02 20:15:00.000000	2025-09-02 20:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
20	2025-09-02 21:40:00.000000	2025-09-02 21:45:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
21	2025-09-02 22:55:00.000000	2025-09-02 23:00:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
22	2025-09-03 00:00:00.000000	2025-09-03 00:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
23	2025-09-03 09:15:00.000000	2025-09-03 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
24	2025-09-03 09:50:00.000000	2025-09-03 09:55:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
25	2025-09-03 10:40:00.000000	2025-09-03 10:45:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
26	2025-09-03 12:15:00.000000	2025-09-03 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
27	2025-09-03 13:00:00.000000	2025-09-03 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
28	2025-09-03 13:45:00.000000	2025-09-03 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
29	2025-09-03 14:30:00.000000	2025-09-03 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
30	2025-09-03 15:15:00.000000	2025-09-03 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
31	2025-09-03 16:00:00.000000	2025-09-03 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
32	2025-09-03 16:45:00.000000	2025-09-03 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
33	2025-09-03 18:15:00.000000	2025-09-03 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
34	2025-09-03 19:00:00.000000	2025-09-03 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
35	2025-09-03 19:45:00.000000	2025-09-03 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
36	2025-09-03 20:30:00.000000	2025-09-03 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
37	2025-09-03 21:15:00.000000	2025-09-03 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Explorer Database Sessions Tx > Output Result 12 ×

ase S 180 rows ×

tab:	flight_id	sch_arrival_time	act_arrival_time	delay_duration
post	38	49 2025-09-03 22:00:00.000000	2025-09-03 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	39	50 2025-09-03 22:45:00.000000	2025-09-03 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	40	51 2025-09-04 00:30:00.000000	2025-09-04 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	41	52 2025-09-04 00:15:00.000000	2025-09-04 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	42	54 2025-09-04 09:15:00.000000	2025-09-04 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	43	55 2025-09-04 10:00:00.000000	2025-09-04 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	44	56 2025-09-04 10:45:00.000000	2025-09-04 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	45	58 2025-09-04 12:15:00.000000	2025-09-04 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	46	59 2025-09-04 13:00:00.000000	2025-09-04 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	47	60 2025-09-04 13:45:00.000000	2025-09-04 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	48	61 2025-09-04 14:30:00.000000	2025-09-04 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	49	62 2025-09-04 15:15:00.000000	2025-09-04 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	50	63 2025-09-04 16:00:00.000000	2025-09-04 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	51	64 2025-09-04 16:45:00.000000	2025-09-04 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	52	65 2025-09-04 17:30:00.000000	2025-09-04 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	53	66 2025-09-04 18:15:00.000000	2025-09-04 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	54	67 2025-09-04 19:00:00.000000	2025-09-04 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	55	68 2025-09-04 19:45:00.000000	2025-09-04 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0
	56	69 2025-09-04 20:30:00.000000	2025-09-04 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0
	57	70 2025-09-04 21:15:00.000000	2025-09-04 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
	58	71 2025-09-04 22:00:00.000000	2025-09-04 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Explorer Database Sessions

Tx > Output Result 12 x

ase 180 rows v

CSV v

tab: flight_id sch.arrival_time act.arrival_time delay_duration

post	flight_id	sch.arrival_time	act.arrival_time	delay_duration
59	72	2025-09-04 22:45:00.000000	2025-09-04 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
60	73	2025-09-05 00:30:00.000000	2025-09-05 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
61	74	2025-09-05 00:15:00.000000	2025-09-05 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
62	76	2025-09-05 09:15:00.000000	2025-09-05 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
63	77	2025-09-05 10:00:00.000000	2025-09-05 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
64	78	2025-09-05 10:45:00.000000	2025-09-05 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
65	80	2025-09-05 12:15:00.000000	2025-09-05 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
66	81	2025-09-05 13:00:00.000000	2025-09-05 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
67	82	2025-09-05 13:45:00.000000	2025-09-05 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
68	83	2025-09-05 14:30:00.000000	2025-09-05 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
69	84	2025-09-05 15:15:00.000000	2025-09-05 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
70	85	2025-09-05 16:00:00.000000	2025-09-05 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
71	86	2025-09-05 16:45:00.000000	2025-09-05 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
72	87	2025-09-05 17:30:00.000000	2025-09-05 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
73	88	2025-09-05 18:15:00.000000	2025-09-05 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
74	89	2025-09-05 19:00:00.000000	2025-09-05 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
75	90	2025-09-05 19:45:00.000000	2025-09-05 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
76	91	2025-09-05 20:30:00.000000	2025-09-05 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
77	92	2025-09-05 21:15:00.000000	2025-09-05 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
78	93	2025-09-05 22:00:00.000000	2025-09-05 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
79	94	2025-09-05 22:45:00.000000	2025-09-05 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Explorer Database Sessions

Tx > Output Result 12 ×

ase S tabl post tabl post

	flight_id	sch_arrival_time	act_arrival_time	delay_duration
80	95	2025-09-06 00:30:00.000000	2025-09-06 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
81	96	2025-09-06 00:15:00.000000	2025-09-06 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
82	98	2025-09-06 09:15:00.000000	2025-09-06 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
83	99	2025-09-06 10:00:00.000000	2025-09-06 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
84	100	2025-09-06 10:45:00.000000	2025-09-06 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
85	101	2025-09-06 11:30:00.000000	2025-09-06 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
86	102	2025-09-06 12:15:00.000000	2025-09-06 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
87	103	2025-09-06 13:00:00.000000	2025-09-06 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
88	104	2025-09-06 13:45:00.000000	2025-09-06 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
89	105	2025-09-06 14:30:00.000000	2025-09-06 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
90	106	2025-09-06 15:15:00.000000	2025-09-06 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
91	107	2025-09-06 16:00:00.000000	2025-09-06 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
92	108	2025-09-06 16:45:00.000000	2025-09-06 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
93	109	2025-09-06 17:30:00.000000	2025-09-06 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
94	110	2025-09-06 18:15:00.000000	2025-09-06 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
95	111	2025-09-06 19:00:00.000000	2025-09-06 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
96	112	2025-09-06 19:45:00.000000	2025-09-06 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
97	113	2025-09-06 20:30:00.000000	2025-09-06 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
98	114	2025-09-06 21:15:00.000000	2025-09-06 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
99	115	2025-09-06 22:00:00.000000	2025-09-06 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
100	116	2025-09-06 22:45:00.000000	2025-09-06 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Consoles > postgres@localhost [2] > console_4 [postgres@localhost [2]]

Database Explorer Database Sessions Tx > Output Result 12 ×

ase 180 rows ↻ ⏪ ⏩ ⏴ ⏵ ⏷ ⏸ ⏹ ⏺ CSV ↻ ⏪ ⏩ ⏴ ⏵ ⏷ ⏸ ⏹ ⏺

taba: post	flight_id	sch_arrival_time	act_arrival_time	delay_duration
101	117	2025-09-07 00:30:00.000000	2025-09-07 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
102	118	2025-09-07 00:15:00.000000	2025-09-07 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
103	120	2025-09-07 09:15:00.000000	2025-09-07 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
104	121	2025-09-07 10:00:00.000000	2025-09-07 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
105	122	2025-09-07 10:45:00.000000	2025-09-07 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
106	123	2025-09-07 11:30:00.000000	2025-09-07 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
107	124	2025-09-07 12:15:00.000000	2025-09-07 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
108	125	2025-09-07 13:00:00.000000	2025-09-07 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
109	126	2025-09-07 13:45:00.000000	2025-09-07 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
110	127	2025-09-07 14:30:00.000000	2025-09-07 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
111	128	2025-09-07 15:15:00.000000	2025-09-07 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
112	129	2025-09-07 16:00:00.000000	2025-09-07 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
113	130	2025-09-07 16:45:00.000000	2025-09-07 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
114	131	2025-09-07 17:30:00.000000	2025-09-07 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
115	132	2025-09-07 18:15:00.000000	2025-09-07 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
116	133	2025-09-07 19:00:00.000000	2025-09-07 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
117	134	2025-09-07 19:45:00.000000	2025-09-07 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
118	135	2025-09-07 20:30:00.000000	2025-09-07 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
119	136	2025-09-07 21:15:00.000000	2025-09-07 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
120	137	2025-09-07 22:00:00.000000	2025-09-07 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
121	138	2025-09-07 22:45:00.000000	2025-09-07 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

The screenshot shows the Database Explorer interface in pgAdmin. The current connection is 'console_4 [postgres@localhost [2]]'. The table 'flights' is selected, containing 180 rows. The columns are 'flight_id', 'sch_arrival_time', 'act_arrival_time', and 'delay_duration'. The data includes various flight IDs and their arrival times, with some entries having a delay duration of 0.0 secs.

flight_id	sch_arrival_time	act_arrival_time	delay_duration
122	2025-09-08 00:30:00.000000	2025-09-08 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
123	2025-09-08 00:15:00.000000	2025-09-08 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
124	2025-09-08 09:15:00.000000	2025-09-08 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
125	2025-09-08 10:00:00.000000	2025-09-08 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
126	2025-09-08 10:45:00.000000	2025-09-08 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
127	2025-09-08 11:30:00.000000	2025-09-08 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
128	2025-09-08 12:15:00.000000	2025-09-08 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
129	2025-09-08 13:00:00.000000	2025-09-08 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
130	2025-09-08 13:45:00.000000	2025-09-08 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
131	2025-09-08 14:30:00.000000	2025-09-08 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
132	2025-09-08 15:15:00.000000	2025-09-08 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
133	2025-09-08 16:00:00.000000	2025-09-08 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
134	2025-09-08 16:45:00.000000	2025-09-08 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
135	2025-09-08 17:30:00.000000	2025-09-08 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
136	2025-09-08 18:15:00.000000	2025-09-08 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
137	2025-09-08 19:00:00.000000	2025-09-08 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
138	2025-09-08 19:45:00.000000	2025-09-08 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
139	2025-09-08 20:30:00.000000	2025-09-08 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
140	2025-09-08 21:15:00.000000	2025-09-08 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
141	2025-09-08 22:00:00.000000	2025-09-08 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
142	2025-09-08 22:45:00.000000	2025-09-08 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Explorer Database Sessions

ase 180 rows CSV

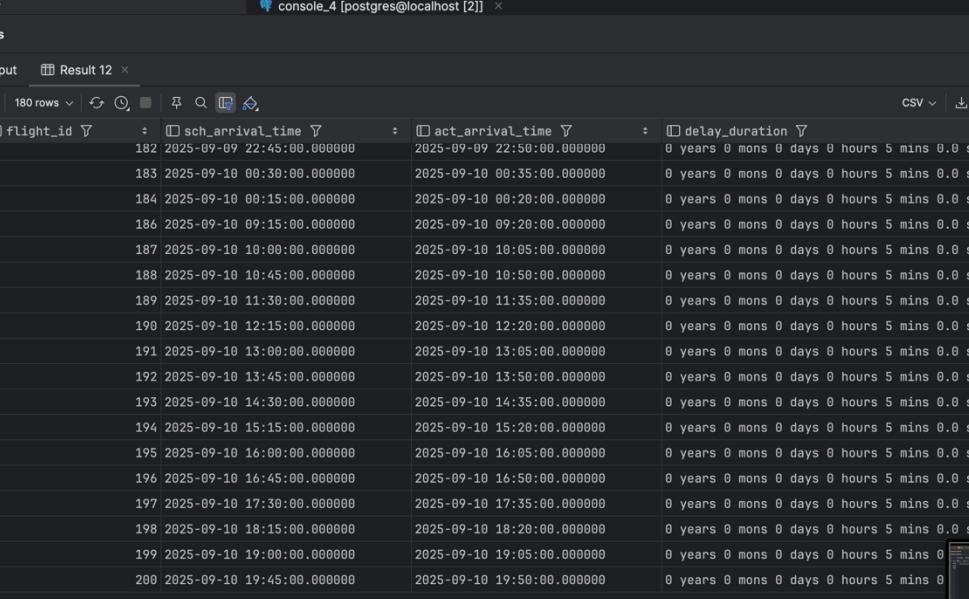
ase	flight_id	sch_arrival_time	act_arrival_time	delay_duration
143	161	2025-09-09 00:30:00.000000	2025-09-09 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
144	162	2025-09-09 00:15:00.000000	2025-09-09 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
145	164	2025-09-09 09:15:00.000000	2025-09-09 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
146	165	2025-09-09 10:00:00.000000	2025-09-09 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
147	166	2025-09-09 10:45:00.000000	2025-09-09 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
148	167	2025-09-09 11:30:00.000000	2025-09-09 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
149	168	2025-09-09 12:15:00.000000	2025-09-09 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
150	169	2025-09-09 13:00:00.000000	2025-09-09 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
151	170	2025-09-09 13:45:00.000000	2025-09-09 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
152	171	2025-09-09 14:30:00.000000	2025-09-09 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
153	172	2025-09-09 15:15:00.000000	2025-09-09 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
154	173	2025-09-09 16:00:00.000000	2025-09-09 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
155	174	2025-09-09 16:45:00.000000	2025-09-09 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
156	175	2025-09-09 17:30:00.000000	2025-09-09 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
157	176	2025-09-09 18:15:00.000000	2025-09-09 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
158	177	2025-09-09 19:00:00.000000	2025-09-09 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
159	178	2025-09-09 19:45:00.000000	2025-09-09 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
160	179	2025-09-09 20:30:00.000000	2025-09-09 20:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
161	180	2025-09-09 21:15:00.000000	2025-09-09 21:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
162	181	2025-09-09 22:00:00.000000	2025-09-09 22:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
163	182	2025-09-09 22:45:00.000000	2025-09-09 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs

Database Explorer Database Sessions

Output Result 12 ×

ase S 180 rows ×

post	flight_id	sch_arrival_time	act_arrival_time	delay_duration
163	182	2025-09-09 22:45:00.000000	2025-09-09 22:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
164	183	2025-09-10 00:30:00.000000	2025-09-10 00:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
165	184	2025-09-10 00:15:00.000000	2025-09-10 00:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
166	186	2025-09-10 09:15:00.000000	2025-09-10 09:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
167	187	2025-09-10 10:00:00.000000	2025-09-10 10:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
168	188	2025-09-10 10:45:00.000000	2025-09-10 10:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
169	189	2025-09-10 11:30:00.000000	2025-09-10 11:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
170	190	2025-09-10 12:15:00.000000	2025-09-10 12:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
171	191	2025-09-10 13:00:00.000000	2025-09-10 13:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
172	192	2025-09-10 13:45:00.000000	2025-09-10 13:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
173	193	2025-09-10 14:30:00.000000	2025-09-10 14:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
174	194	2025-09-10 15:15:00.000000	2025-09-10 15:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
175	195	2025-09-10 16:00:00.000000	2025-09-10 16:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
176	196	2025-09-10 16:45:00.000000	2025-09-10 16:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
177	197	2025-09-10 17:30:00.000000	2025-09-10 17:35:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
178	198	2025-09-10 18:15:00.000000	2025-09-10 18:20:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
179	199	2025-09-10 19:00:00.000000	2025-09-10 19:05:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs
180	200	2025-09-10 19:45:00.000000	2025-09-10 19:50:00.000000	0 years 0 mons 0 days 0 hours 5 mins 0.0 secs



```
SELECT flight_id, sch_arrival_time, act_arrival_time, (act_arrival_time - sch_arrival_time)
      AS delay_duration
FROM flights WHERE act arrival time > sch arrival time;
```