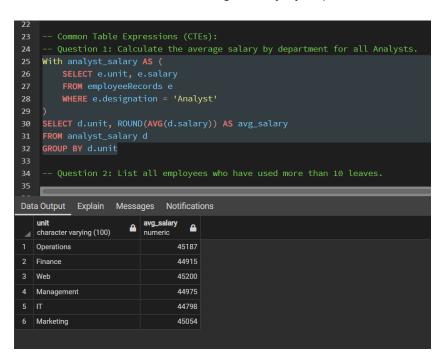
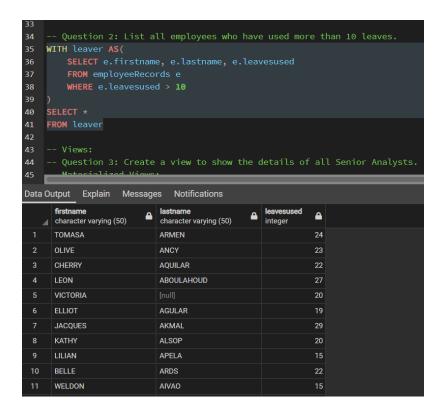
## **Common Table Expressions (CTEs):**

Question 1: Calculate the average salary by department for all Analysts.



Question 2: List all employees who have used more than 10 leaves.



## Views:

Question 3: Create a view to show the details of all Senior Analysts.

```
43 -- Views:
44 -- Question 3: Create a view to show the details of all Senior Analysts.

CREATE VIEW senior_analyst AS

SELECT *

FROM employeeRecords e

WHERE e.designation = 'Senior Analyst'

49 -- Materialized Views:

50 -- Question 4: Create a materialized view to store the count of employees by department.

51

52 -- Procedures (Stored Procedures):

53

Data Output Explain Messages Notifications

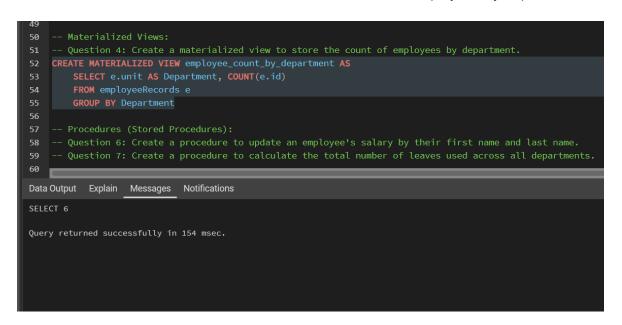
CREATE VIEW

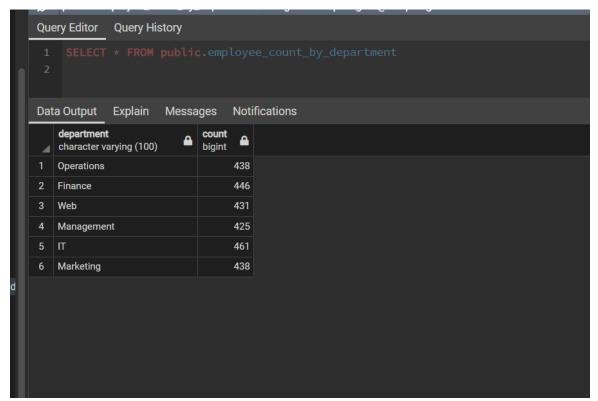
Query returned successfully in 196 msec.
```

1 SELECT * FROM public.senior_analyst 2													
Data	Data Output Explain Messages Notifications												
4	<b>id</b> integer	ш.	firstname character varying (50)	lastname character varying (50)	sex character (1)	doj date	currentdate date	designation character varying (100)	<b>age</b> integer	<u></u>	salary numeric (10,2)	unit character vary	
1		9	KATHY	ALSOP	F	2014-06	2016-01-07	Senior Analyst		28	63478.00	Operations	
2		29	SEYMOUR	ALBEN	М	2014-12	2016-01-07	Senior Analyst		25	57488.00	Operations	
3		33	FOSTER	ALDERMAN	М	2014-05	2016-01-07	Senior Analyst		26	68295.00	Operations	
4		54	CARI	ARENALES	F	2014-04	2016-01-07	Senior Analyst		28	66338.00	Web	
5		58	PAULINE	ALTSHULER	F	2014-12	2016-01-07	Senior Analyst		28	61647.00	Finance	
6		69	RILEY	AIKINS	М	2013-06	2016-01-07	Senior Analyst		25	60712.00	Finance	
7		73	MARYJANE	ARES	F	2012-08	2016-01-07	Senior Analyst		25	65212.00	Manageme	
8		76	MARY	ALMESTICA	F	2013-10	2016-01-07	Senior Analyst		27	53339.00	Finance	
9		83	WILMER	AKIONA	М	2014-05	2016-01-07	Senior Analyst		25	50739.00	П	
10		91	ELOISA	ARGIE	F	2013-08	2016-01-07	Senior Analyst		28	52690.00	Marketing	
11		93	KATELYN	APPENZELLER	F	2014-11	2016-01-07	Senior Analyst		28	56314.00	Finance	
12		03	ELIZA	ANSBACHER	F	2013-09	2016-01-07	Senior Analyst		25	50813.00	Marketing	
13		05	CARI	ARENALES	F	2014-04	2016-01-07	Senior Analyst		28	66338.00	Web	
14		16	ELEANORE	ARENA	F	2013-03	2016-01-07	Senior Analyst		26	62537.00	Manageme	
15		21	KENDRICK	AHIMUD	М	2013-04	2016-01-07	Senior Analyst		26	68245.00	Finance	
16		25	TERESITA	ARENTZ	F	2013-11	2016-01-07	Senior Analyst		27	53275.00	Finance	
17		38	JON	ABOLT	М	2013-02	2016-01-07	Senior Analyst		25	50130.00	Marketing	
18		39	JORDON	ALLARA	М	2014-12	2016-01-07	Senior Analyst		25	55472.00	Finance	
19		43	DEIDRA	ARCHANGEL	F	2012-10	2016-01-07	Senior Analyst		28	69316.00	Operations	

## **Materialized Views:**

Question 4: Create a materialized view to store the count of employees by department.

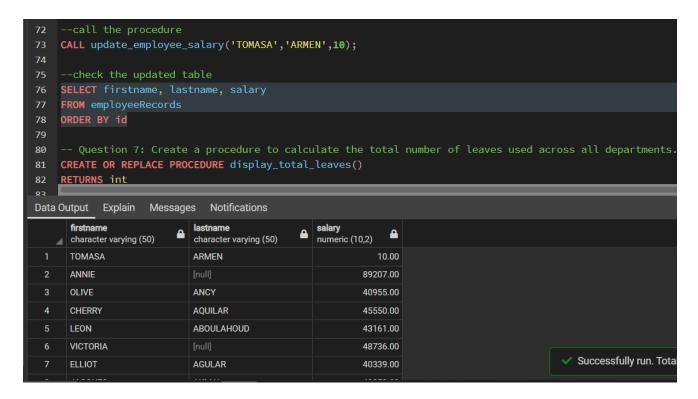




## **Procedures (Stored Procedures):**

**Question 6:** Create a procedure to update an employee's salary by their first name and last name.

```
58
59 CREATE OR REPLACE PROCEDURE update_employee_salary(
       fname VARCHAR(50),
60
       lname VARCHAR(50),
       new_salary DECIMAL(10,2))
63 LANGUAGE plpgsql
64 AS $$
65 ▼ BEGIN
       UPDATE employeeRecords
66
68
69 END;
73
Data Output Explain Messages
                            Notifications
CREATE PROCEDURE
Query returned successfully in 101 msec.
```



**Question 7:** Create a procedure to calculate the total number of leaves used across all departments.

```
79
30 -- Question 7: Create a procedure to calculate the total number of leaves used across all departments.

81 CREATE OR REPLACE PROCEDURE total_leaves()
82 LANGUAGE plpgsql
83 AS $$
84 BEGIN
85 CREATE OR REPLACE VIEW total_leaves AS
86 SELECT SUM(leavesused)
87 FROM employeeRecords;
88 END;
89 $$;
90
91 --call the procedure
92 CALL total_leaves()
93
94

Data Output Explain Messages Notifications

CREATE PROCEDURE

Query returned successfully in 98 msec.
```

