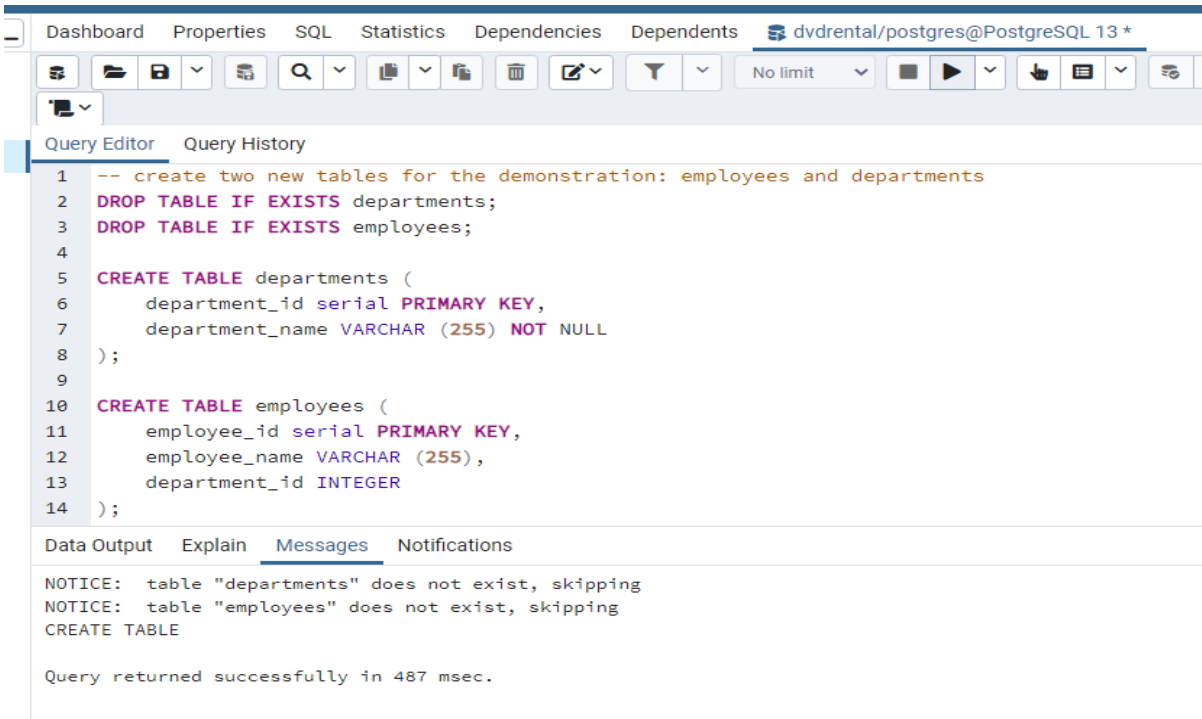


PostgreSQL FULL OUTER JOIN



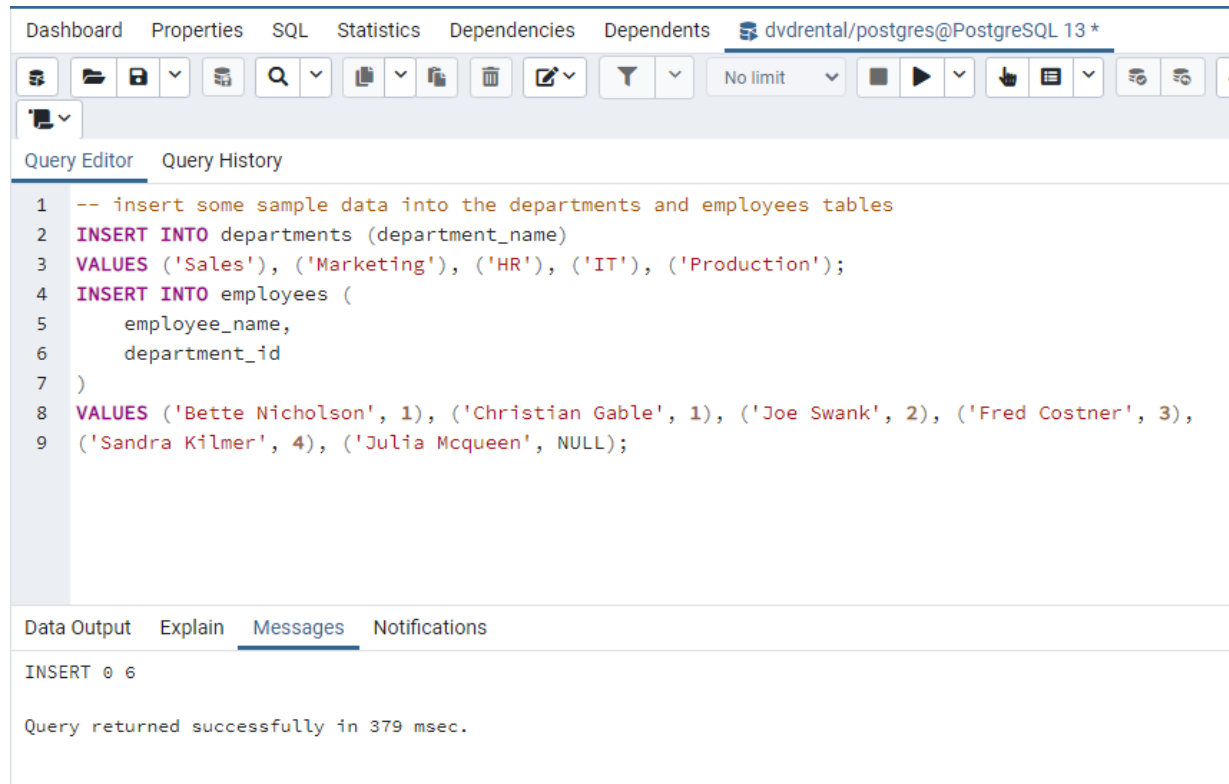
The screenshot shows the PostgreSQL Query Editor interface. The top navigation bar includes Dashboard, Properties, SQL, Statistics, Dependencies, and Dependents. The current connection is 'dvdrental/postgres@PostgreSQL 13 *'. The Query Editor tab is active, displaying the following SQL script:

```
1 -- create two new tables for the demonstration: employees and departments
2 DROP TABLE IF EXISTS departments;
3 DROP TABLE IF EXISTS employees;
4
5 CREATE TABLE departments (
6     department_id serial PRIMARY KEY,
7     department_name VARCHAR (255) NOT NULL
8 );
9
10 CREATE TABLE employees (
11     employee_id serial PRIMARY KEY,
12     employee_name VARCHAR (255),
13     department_id INTEGER
14 );
```

Below the editor, the Messages tab is selected, showing the following output:

```
NOTICE: table "departments" does not exist, skipping
NOTICE: table "employees" does not exist, skipping
CREATE TABLE

Query returned successfully in 487 msec.
```



The screenshot shows the PostgreSQL Query Editor interface with the same connection. The Messages tab is still selected. The SQL script in the editor is:

```
1 -- insert some sample data into the departments and employees tables
2 INSERT INTO departments (department_name)
3 VALUES ('Sales'), ('Marketing'), ('HR'), ('IT'), ('Production');
4 INSERT INTO employees (
5     employee_name,
6     department_id
7 )
8 VALUES ('Bette Nicholson', 1), ('Christian Gable', 1), ('Joe Swank', 2), ('Fred Costner', 3),
9 ('Sandra Kilmer', 4), ('Julia Mcqueen', NULL);
```

The Messages tab shows the following output:

```
INSERT 0 6

Query returned successfully in 379 msec.
```


Dashboard Properties SQL Statistics Dependencies Dependents **dvdrental/postgr**

Query Editor Query History

```

1 --query data from the departments and employees tables
2 SELECT * FROM departments;

```

Data Output Explain Messages Notifications

	department_id [PK] integer	department_name character varying (255)
1	1	Sales
2	2	Marketing
3	3	HR
4	4	IT
5	5	Production

Dashboard Properties SQL Statistics Dependencies Dependents **dvc**

Query Editor Query History

```

1 --query data from the departments and employees tables
2 SELECT * FROM employees;

```

Data Output Explain Messages Notifications

	employee_id [PK] integer	employee_name character varying (255)	department_id integer
1	1	Bette Nicholson	1
2	2	Christian Gable	1
3	3	Joe Swank	2
4	4	Fred Costner	3
5	5	Sandra Kilmer	4
6	6	Julia Mcqueen	[null]

Dashboard Properties SQL Statistics Dependencies Dependents dvdrental/postgres@PostgreSQL 13 *

Query Editor Query History

```
1 -- use the FULL OUTER JOIN to query data from both employees and departments table
2 SELECT
3     employee_name,
4     department_name
5 FROM
6     employees e
7 FULL OUTER JOIN departments d
8     ON d.department_id = e.department_id;
```

Data Output Explain Messages Notifications

	employee_name character varying (255)	department_name character varying (255)
1	Bette Nicholson	Sales
2	Christian Gable	Sales
3	Joe Swank	Marketing
4	Fred Costner	HR
5	Sandra Kilmer	IT
6	Julia McQueen	[null]
7	[null]	Production

Dashboard Properties SQL Statistics Dependencies Dependents dvdrental/postgres@PostgreSQL 13 *

Query Editor Query History

```
1 --To find the department that does not have any employees, you use a WHERE clause
2 SELECT
3     employee_name,
4     department_name
5 FROM
6     employees e
7 FULL OUTER JOIN departments d
8     ON d.department_id = e.department_id
9 WHERE
10    employee_name IS NULL;
```

Data Output Explain Messages Notifications

	employee_name character varying (255)	department_name character varying (255)
1	[null]	Production

```
1  --To find the employee who does not belong to any department,
2  --you check for the NULL of the department_name in the WHERE clause
3  SELECT
4      employee_name,
5      department_name
6  FROM
7      employees e
8  FULL OUTER JOIN departments d ON d.department_id = e.department_id
9  WHERE
10     department_name IS NULL;
```

	employee_name character varying (255)	department_name character varying (255)
1	Julia McQueen	[null]