

## Criar a tabela employee:

The screenshot shows a database management tool interface. At the top, there's a tab labeled "Employee Certification Tracker" with a plus icon to its right. Below the tab, a SQL editor contains the following code:

```
1 CREATE TABLE employee (  
2   name TEXT PRIMARY KEY,  
3   certifications TEXT[]  
4 );  
5
```

Below the editor, there's a toolbar with "Results", "Chart", and "Export" buttons. To the right of these buttons are dropdown menus for "Source" (set to "Primary Database") and "Role" (set to "postgres"), followed by a green "Run" button with a play icon. The main area below the toolbar displays the message: "Success. No rows returned".

## Inserindo Funcionário

The screenshot shows the same database management tool interface. The SQL editor now contains the following code:

```
1 INSERT INTO employee  
2 VALUES ('Bill', '{"CCNA", "ACSP", "CISSP"}');  
3
```

The toolbar and dropdown menus remain the same. The main area below the toolbar displays the message: "Success. No rows returned".

## Select de employee

Employee Certification Tracker

```

1 SELECT * FROM employee;
2

```

Results Chart Export ✓ Source Primary Database Role postgres Run

name	certifications
Bill	["CCNA", "ACSP", ""]

Filtrar onde o array tem ACSP

Employee Certification Tracker

```

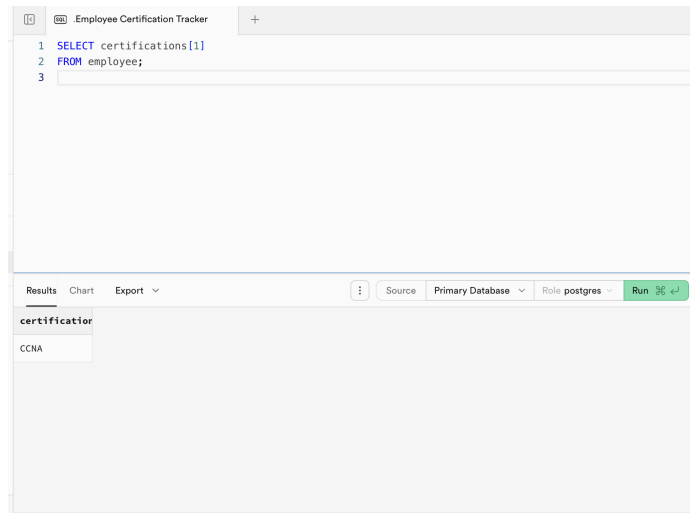
1 SELECT name
2 FROM employee
3 WHERE certifications @> '{ACSP}';
4

```

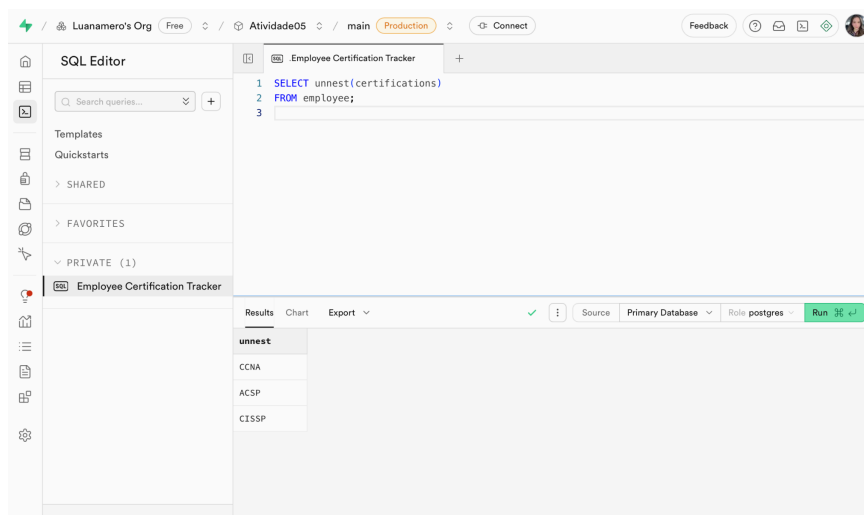
Results Chart Export ✓ Source Primary Database Role postgres Run

name
Bill

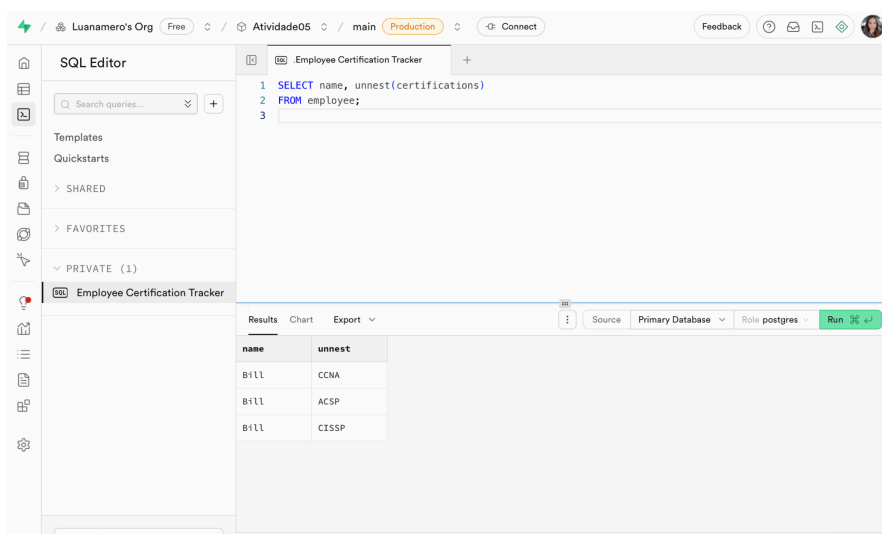
Acessar o primeiro elemento do Array



Separando os elementos do array de certificações com unnest

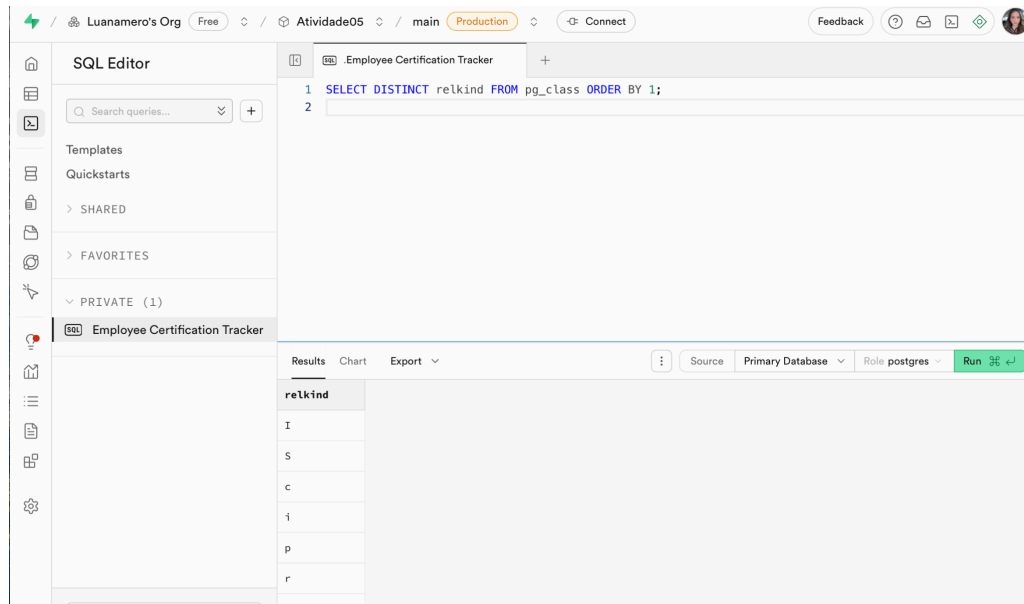


Mostrar nome + certificação



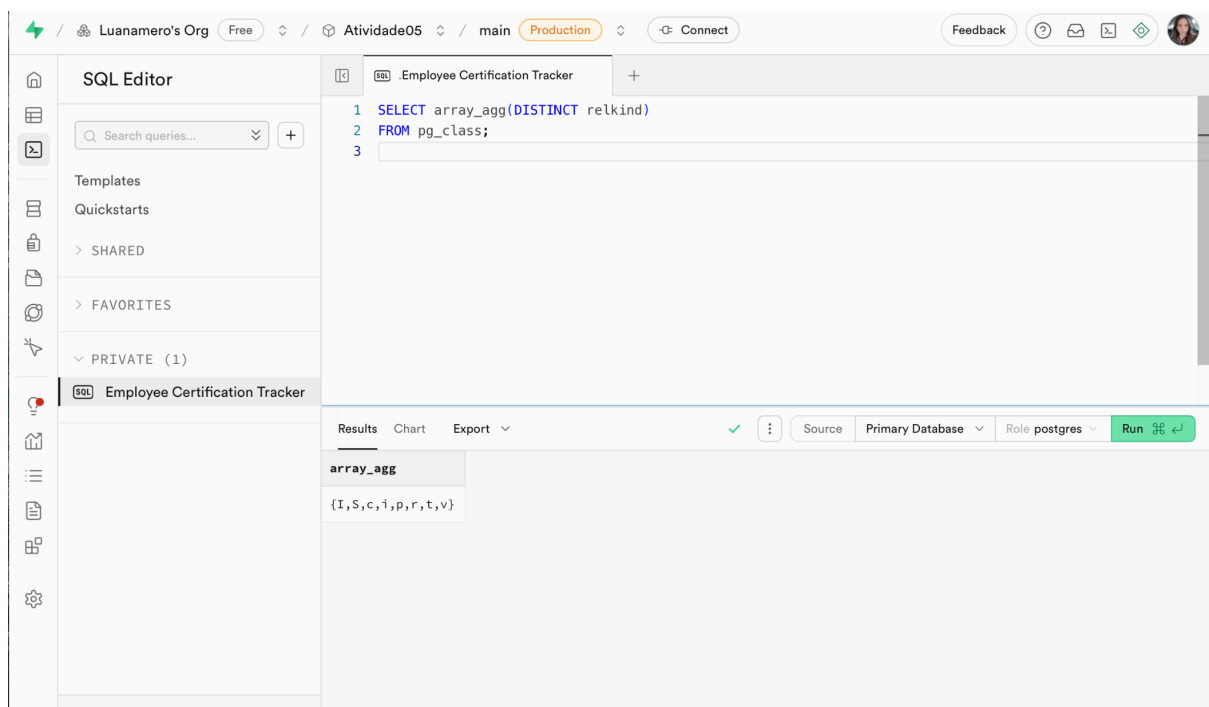
Rodando comando

```
SELECT DISTINCT relkind  
FROM pg_class  
ORDER BY 1;
```



Rodando comando

```
SELECT array_agg(DISTINCT relkind)  
FROM pg_class;
```



## Criando tabela car\_rental

The screenshot shows the SQL Editor interface with the following components:

- Top Bar:** Luanamero's Org, Free, Atividade05, main, Production, Connect, Feedback, and user profile.
- Left Sidebar:** SQL Editor, Search queries..., Templates, Quickstarts, SHARED, FAVORITES, PRIVATE (1), and Employee Certification Tracker.
- SQL Editor:** Contains the following SQL code:

```
1 CREATE TABLE car_rental
2 (id SERIAL PRIMARY KEY, time_span TSTZRANGE);
```
- Results Panel:** Shows "Success. No rows returned".

## Inserindo um aluguel

The screenshot shows the SQL Editor interface with the following components:

- Top Bar:** Luanamero's Org, Free, Atividade05, main, Production, Connect, Feedback, and user profile.
- Left Sidebar:** SQL Editor, Search queries..., Templates, Quickstarts, SHARED, FAVORITES, PRIVATE (1), and Employee Certification Tracker.
- SQL Editor:** Contains the following SQL code:

```
1 INSERT INTO car_rental
2 VALUES (DEFAULT, '[2016-05-03 09:00:00, 2016-05-11 12:00:00]');
```
- Results Panel:** Shows "Success. No rows returned".

## Verificar se a data está dentro do intervalo

SQL Editor

Search queries... +

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

SQL Employee Certification Tracker

```
1 SELECT *
2 FROM car_rental
3 WHERE time_span @> '2016-05-09 00:00:00'::timestampz;
```

Results Chart Export

Source Primary Database Role postgres Run

id	time_span
1	["2016-05-03 09:00:00+00", "2016-05-11 12:00:00+00"]

Verificar se a data está fora do intervalo

SQL Editor

Search queries... +

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

SQL Employee Certification Tracker

```
1 SELECT *
2 FROM car_rental
3 WHERE time_span @> '2018-06-09 00:00:00'::timestampz;
```

Results Chart Export

Source Primary Database Role postgres Run

Success. No rows returned

Inserir registros com generate\_series

SQL Editor interface showing a query execution result.

Query executed:

```
1 INSERT INTO car_rental (time_span)
2 SELECT tstzrange(y, y + '1 day')
3 FROM generate_series('2001-09-01 00:00:00'::timestampz,
4 | | | | | | | | | | '2010-09-01 00:00:00'::timestampz, '1 day') AS x(y);
```

Results:

Success. No rows returned

## Filtrar intervalo existente

SQL Editor interface showing a query execution result.

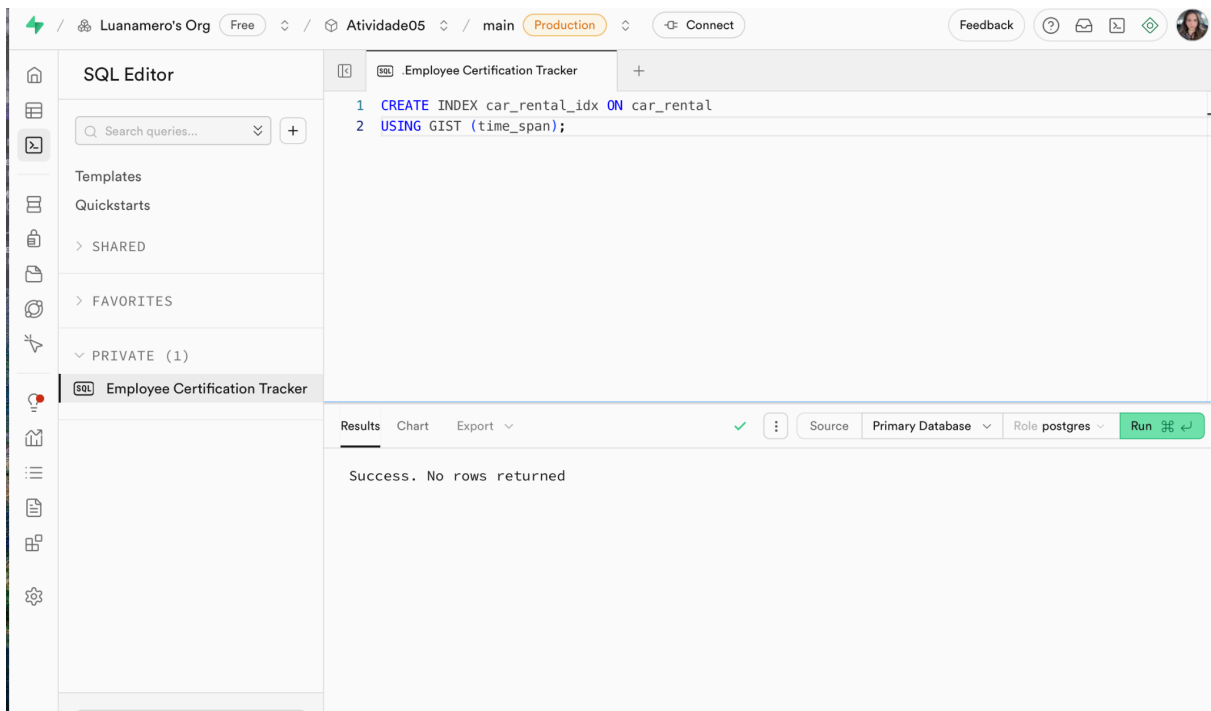
Query executed:

```
1 SELECT *
2 FROM car_rental
3 WHERE time_span @> '2007-08-01 00:00:00'::timestampz;
```

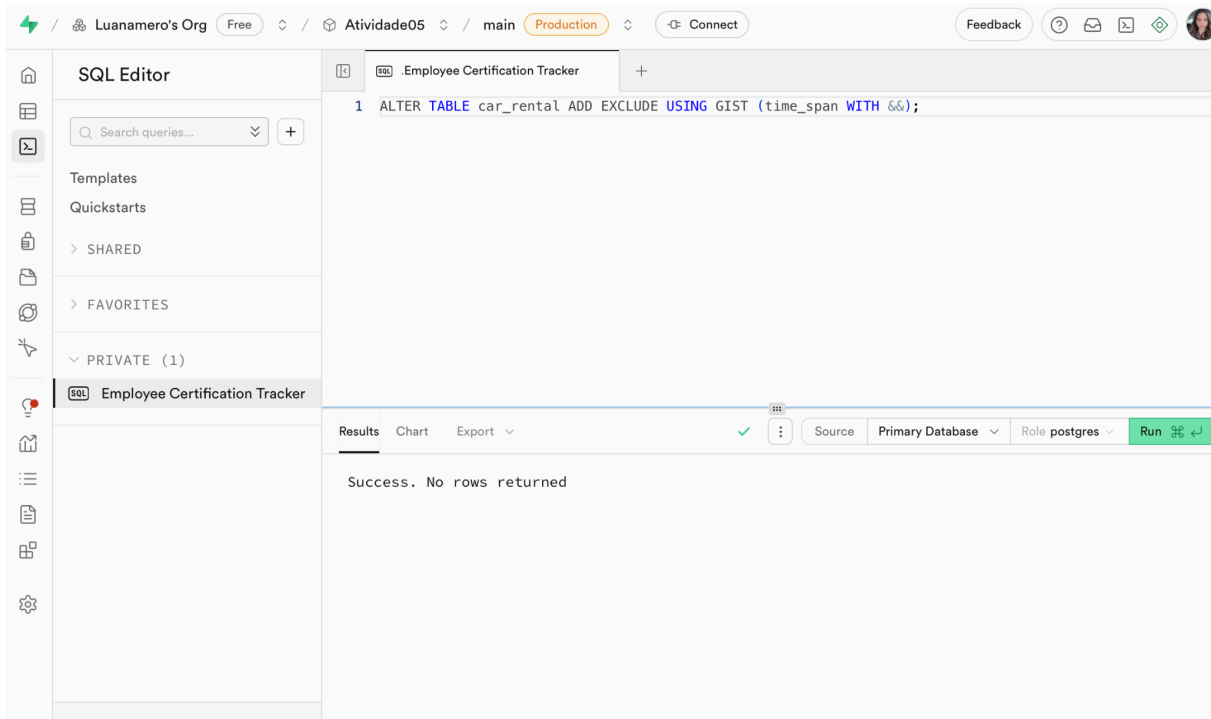
Results:

id	time_span
2162	["2007-08-01 00:00:00+00", "2007-08-02 00:00:00+00")

## Criar indice GIST



## Adicionar restrição exclude



## Testando sobreposição



SQL Editor

Search queries...

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

Employee Certification Tracker

```
1 INSERT INTO car_rental
2 VALUES (DEFAULT, '[2003-04-01 00:00:00, 2003-04-01 00:00:01]');
```

Results Chart Export

ERROR: 23P01: conflicting key value violates exclusion constraint "car\_rental\_time\_span\_excl"

DETAIL: Key (time\_span)=(["2003-04-01 00:00:00+00","2003-04-01 00:00:01+00"]) conflicts with existing key (time\_span)=(["2003-04-01 00:00:00+00","2003-04-02 00:00:00+00"]).

Debug with Assistant

## Criar tabela dart

SQL Editor

Search queries...

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

Employee Certification Tracker

```
1 CREATE TABLE dart (dartno SERIAL, location POINT);
2
```

Results Chart Export

Success. No rows returned

## Inserir 1000 registros

SQL Editor

Search queries... +

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

Employee Certification Tracker

```
1 INSERT INTO dart (location)
2 SELECT CAST('(' || random() * 100 || ',' ||
3         random() * 100 || ')' AS point)
4 FROM generate_series(1, 1000);
5
```

Results Chart Export

Source Primary Database Role postgres Run

Success. No rows returned

Visualizando os 5 primeiros

SQL Editor

Search queries... +

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

Employee Certification Tracker

```
1 SELECT *
2 FROM dart
3 LIMIT 5;
4
```

Results Chart Export

Source Primary Database Role postgres Run

dartno	location
1	(67.6071647970541,86.0161178187701)
2	(93.3524016783079,38.1658909154695)
3	(83.9575611468839,79.200338254885)
4	(83.6290564921029,68.0034026712948)
5	(61.8931750209198,34.2184899787392)

Buscar os dados dentro de um circulo

SQL Editor

Search queries... +

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

Employee Certification Tracker

```
1 SELECT *
2 FROM dart
3 WHERE location <@ '<(50, 50), 4>'::circle;
4
```

Results Chart Export

Source Primary Database Role postgres Run

dartno	location
54	(52.5501504643075, 49.6186589200933)
421	(51.3147925960516, 53.1388010459894)

## Criar GIST

SQL Editor

Search queries... +

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

Employee Certification Tracker

```
1 CREATE INDEX dart_idx ON dart
2 USING GIST (location);
3
```

Results Chart Export

Source Primary Database Role postgres Run

Success. No rows returned

Repetir consulta, agora com o índice

SQL Editor

Search queries... +

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

Employee Certification Tracker

```
1 SELECT *
2 FROM dart
3 WHERE location <@ '(50, 50), 4)::circle;
4
```

Results Chart Export

Source Primary Database Role postgres Run

dartno	location
54	(52.5501504643075,49.6186589200933)
421	(51.3147925960516,53.1388010459894)

Encontrar dardos mais proximos do ponto 50 50

SQL Editor

Search queries... +

Templates

Quickstarts

> SHARED

> FAVORITES

> PRIVATE (1)

Employee Certification Tracker

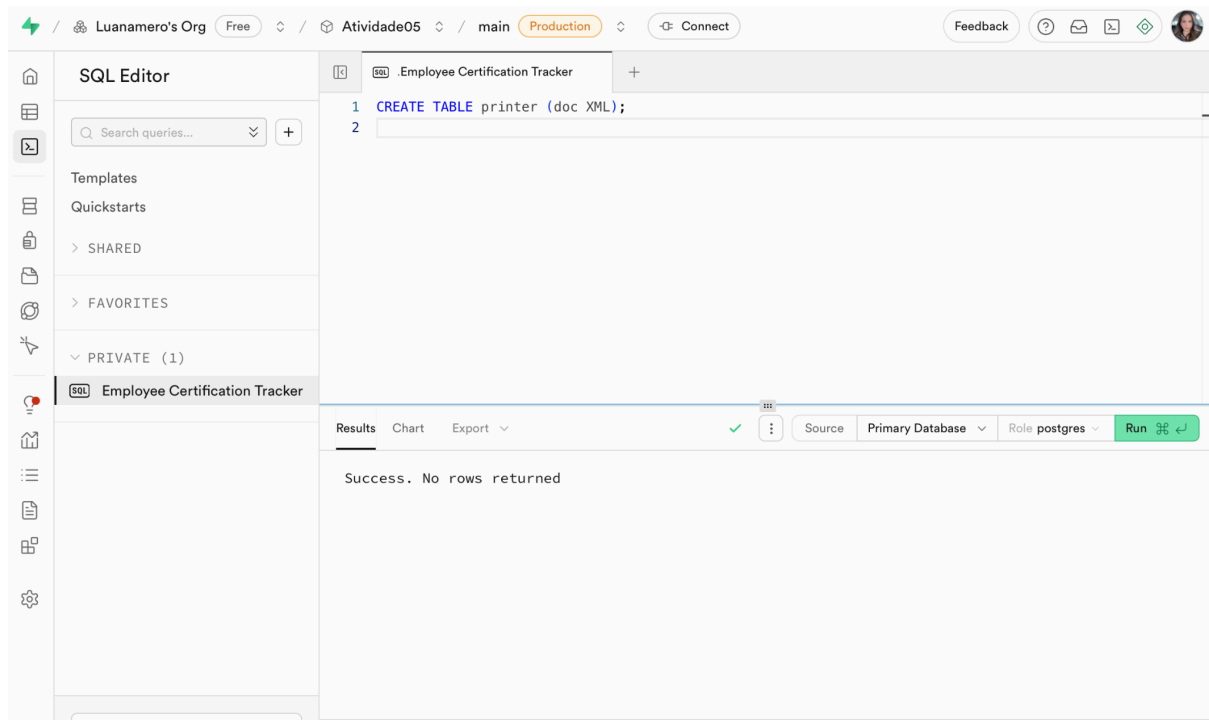
```
1 SELECT *
2 FROM dart
3 ORDER BY location <-> '(50, 50)::point
4 LIMIT 2;
5
```

Results Chart Export

Source Primary Database Role postgres Run

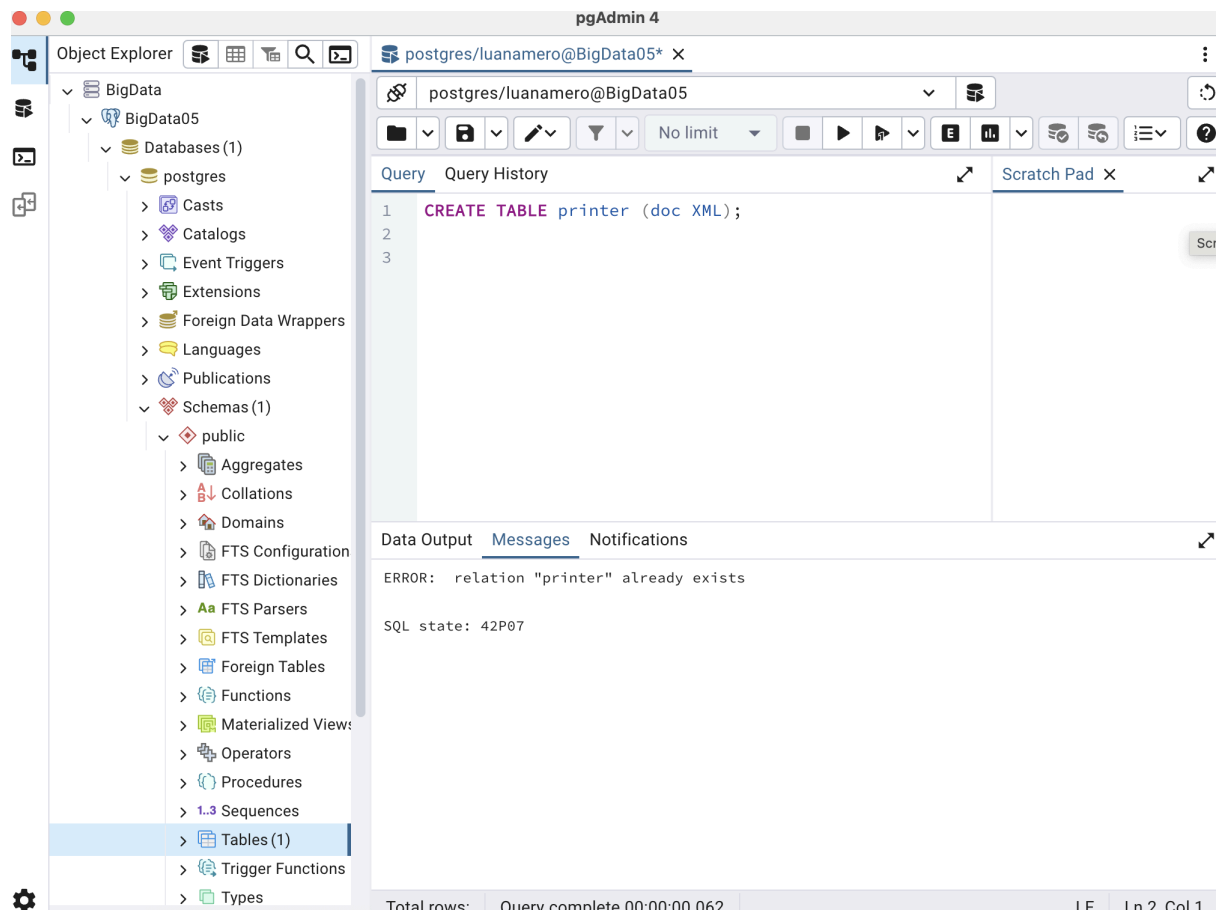
dartno	location
54	(52.5501504643075,49.6186589200933)
421	(51.3147925960516,53.1388010459894)

Criar tabela XML



### Criar tabela printer XML

```
<arg_order>100</arg_order>
luanamero@MacBook-Air-de-Luana opt % for FILE in *.xml
do
    tr -d '\n' < "$FILE"
    echo
done > /tmp/foomatic.xml
luanamero@MacBook-Air-de-Luana opt % head /tmp/foomatic.xml
```



Professor, quando eu cheguei na parte do xml, eu rodei o código do slide pra formatar ele e não rodou de jeito nenhum, fica dando esse de formatação. Peço desculpas, mas não vou conseguir corrigir a formatação a tempo, não consigo interpretar o log de erro. Meus amigos também não conseguiram :(