



PGConf.Brasil 2018

Postgres: O melhor banco de dados
para desenvolvimento de aplicações!

Everaldo Canuto

everaldo.canuto@gmail.com

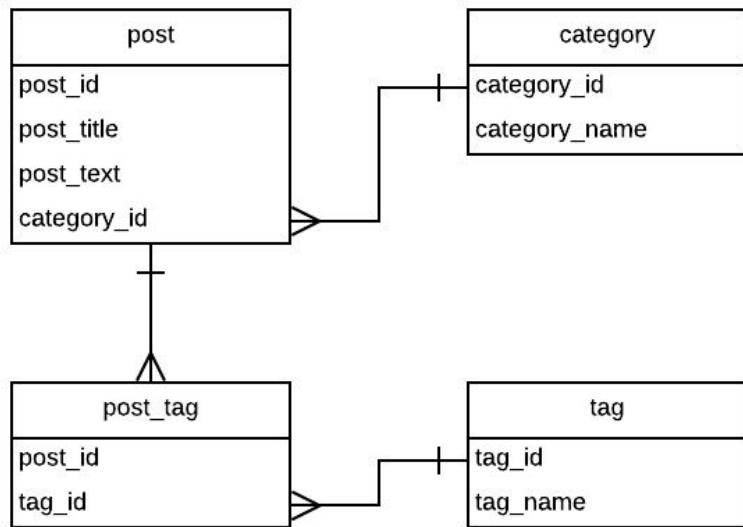


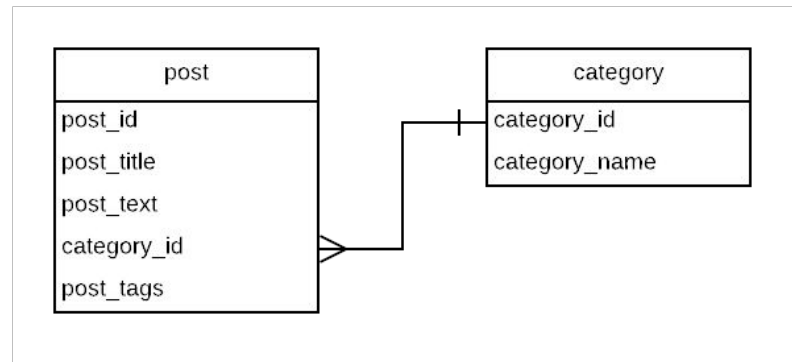
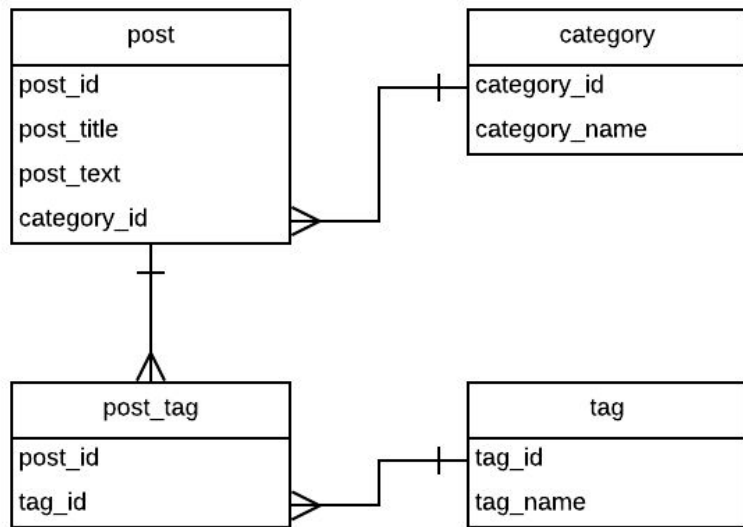
- UUID vs Serial (integer)
- Campos Array
- HStore
- JSONB
- Materialized Views
- CTEs
- Replicação embutida

```
CREATE TABLE users (  
    id UUID primary key,  
    username text  
);  
  
INSERT INTO users (id, username)  
VALUES (uuid_generate_v4(), 'seumadruga');  
  
INSERT INTO users (id, username)  
VALUES (uuid_generate_v4(), 'seubarriga');
```

```
tutorial=# SELECT * FROM users;
```

id	username
b1a1ce87-55e1-4f43-9591-ae6e744379e0	seumadruga
1ff74a17-a90a-45e7-bf25-96c167a2680c	seubarriga

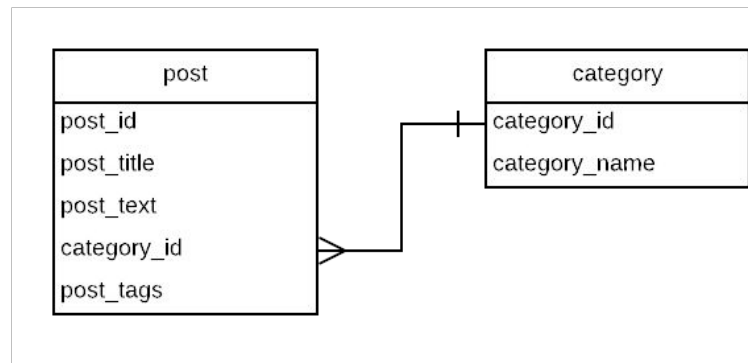




```
INSERT INTO posts
  (post_id, post_title, post_tags)
VALUES (48, 'Postgres', '{"postgres"}');
```

```
UPDATE posts
SET post_tags = '{"tecnologia","postgres"}'
WHERE post_id = 48;
```

```
SELECT post_id, post_title, post_tags
FROM posts
WHERE post_tags @> ARRAY[tecnologia]
```

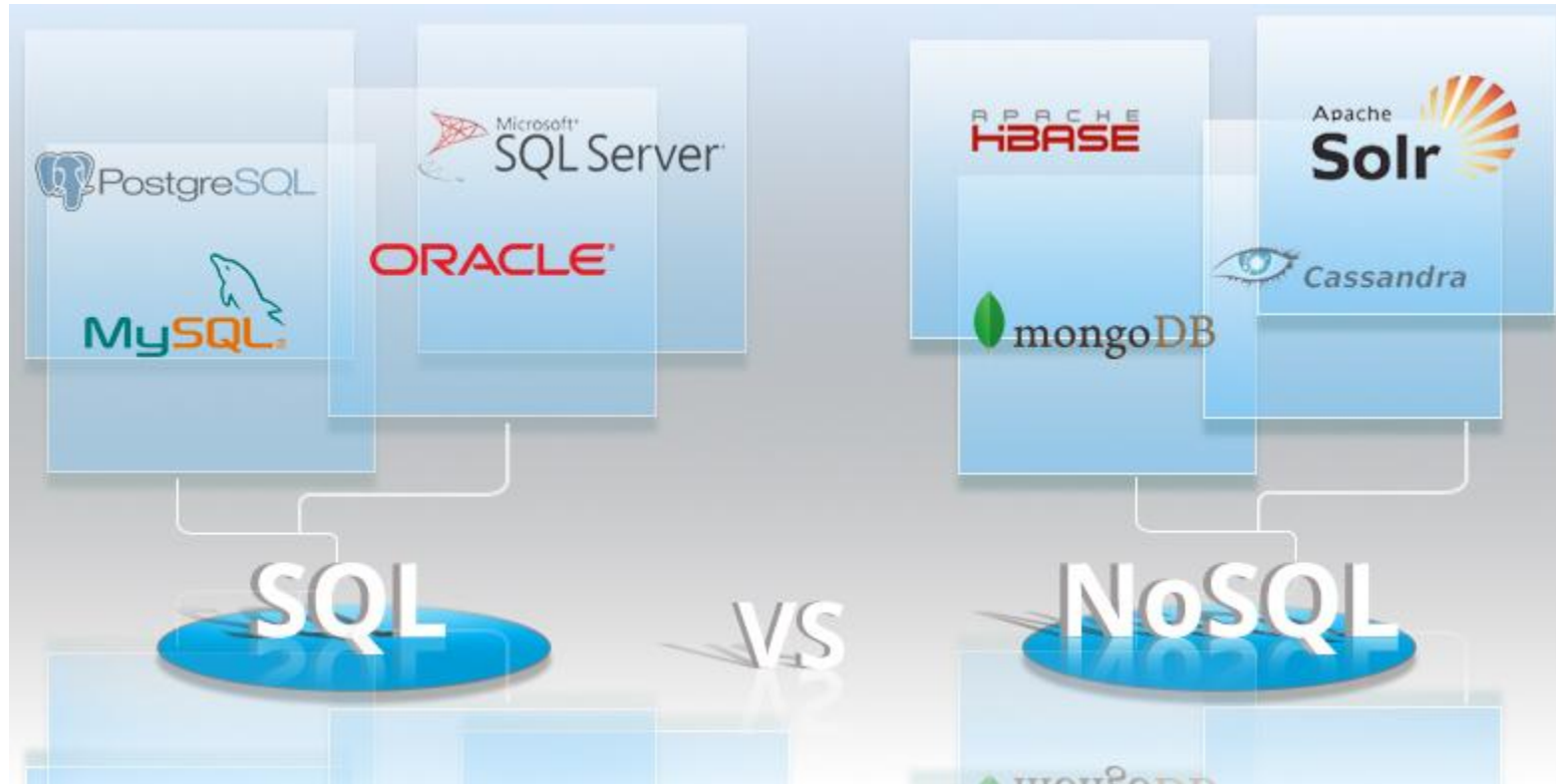


Operator	Description	Example	Result
=	equal	<code>ARRAY[1.1,2.1,3.1]::int[] = ARRAY[1,2,3]</code>	t
<>	not equal	<code>ARRAY[1,2,3] <> ARRAY[1,2,4]</code>	t
<	less than	<code>ARRAY[1,2,3] < ARRAY[1,2,4]</code>	t
>	greater than	<code>ARRAY[1,4,3] > ARRAY[1,2,4]</code>	t
<=	less than or equal	<code>ARRAY[1,2,3] <= ARRAY[1,2,3]</code>	t
>=	greater than or equal	<code>ARRAY[1,4,3] >= ARRAY[1,4,3]</code>	t
@>	contains	<code>ARRAY[1,4,3] @> ARRAY[3,1]</code>	t
<@	is contained by	<code>ARRAY[2,7] <@ ARRAY[1,7,4,2,6]</code>	t
&&	overlap (have elements in common)	<code>ARRAY[1,4,3] && ARRAY[2,1]</code>	t
	array-to-array concatenation	<code>ARRAY[1,2,3] ARRAY[4,5,6]</code>	{1,2,3,4,5,6}
	array-to-array concatenation	<code>ARRAY[1,2,3] ARRAY[[4,5,6],[7,8,9]]</code>	{{1,2,3},{4,5,6},{7,8,9}}
	element-to-array concatenation	<code>3 ARRAY[4,5,6]</code>	{3,4,5,6}
	array-to-element concatenation	<code>ARRAY[4,5,6] 7</code>	{4,5,6,7}

<https://www.postgresql.org/docs/current/static/functions-array.html>


```
CREATE TABLE books (  
    id serial primary key,  
    title VARCHAR (255),  
    attr hstore  
);
```

```
INSERT INTO books (title, attr)  
VALUES (  
    'PostgreSQL Tutorial',  
    "paperback" => "243",  
    "publisher" => "postgresqлтutorial.com",  
    "language" => "English",  
    "ISBN-13" => "978-1449370000",  
    "weight" => "11.2 ounces"  
);
```



```
CREATE TABLE orders (  
    id UUID primary key,  
    info jsonb  
);
```

```
INSERT INTO orders (id, info)  
VALUES  
(  
    uuid_generate_v4(),  
    '{ "customer": "John Doe", "items": {"product": "Beer", "qty": 6}}'  
);
```

```
CREATE MATERIALIZED VIEW rental_by_category
```

```
AS
```

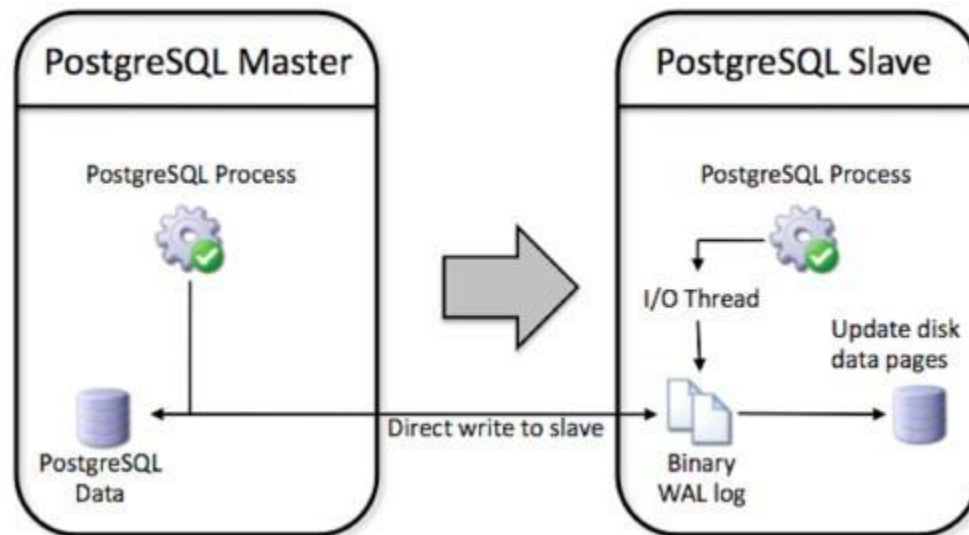
```
    SELECT ...
```

```
WITH NO DATA;
```

```
REFRESH MATERIALIZED VIEW rental_by_category;
```

```
REFRESH MATERIALIZED VIEW CONCURRENTLY rental_by_category;
```

```
WITH RECURSIVE cte_categories
AS (
    SELECT category_id, category_parent, category_name
    FROM categories
    WHERE category_id = 23
    UNION
    SELECT c.category_id, c.category_parent, c.category_name
    FROM categories c, cte_categories r
    WHERE c.category_parent = r.category_id
)
SELECT p.page_id, p.page_featured_title, p.page_type,
       p.page_permalink, c.category_name
FROM cte_categories c
JOIN pages p ON c.category_id = p.category_id
```







Everaldo Canuto

everaldo.canuto@gmail.com

<https://www.tocadocanuto.com.br/>

<https://youtube.com/tocadocanuto>