

PostgreSQL NATURAL JOIN Explained By Examples

```
dvdrental/postgres@PostgreSQL ▾
Query Editor Query History Explain Messages
1 --The following shows the syntax of the PostgreSQL natural join:
2
3 SELECT select_list
4 FROM T1
5 NATURAL [INNER, LEFT, RIGHT] JOIN T2;
```

```
dvdrental/postgres@PostgreSQL ▾
Query Editor Query History Explain Messages
1 --The following CREATE TABLE statements create the categories and products tables.
2
3 CREATE TABLE categories (
4     category_id serial PRIMARY KEY,
5     category_name VARCHAR (255) NOT NULL
6 );
7
8 CREATE TABLE products (
9     product_id serial PRIMARY KEY,
10    product_name VARCHAR (255) NOT NULL,
11    category_id INT NOT NULL,
12    FOREIGN KEY (category_id) REFERENCES categories (category_id)
13 );
```

```
dvdrental/postgres@PostgreSQL ▾
Query Editor Query History Explain Messages
1 --The following INSERT statements insert some data into the categories and products tables.
2
3 INSERT INTO categories (category_name)
4 VALUES
5     ('Smart Phone'),
6     ('Laptop'),
7     ('Tablet');
8
9 INSERT INTO products (product_name, category_id)
10 VALUES
11     ('iPhone', 1),
12     ('Samsung Galaxy', 1),
13     ('HP Elite', 2),
14     ('Lenovo Thinkpad', 2),
15     ('iPad', 3),
16     ('Kindle Fire', 3);
```

Query Editor	Query History	Explain	Messages
<pre> 1 --The following statement uses the NATURAL JOIN clause to join the products table with the categories table; 2 3 SELECT * FROM products 4 NATURAL JOIN categories; </pre>			
Data Output			
category_id	product_id	product_name	category_name
integer	integer	character varying (255)	character varying (255)
1	1	iPhone	Smart Phone
2	1	Samsung Galaxy	Smart Phone
3	2	HP Elite	Laptop
4	2	Lenovo Thinkpad	Laptop
5	3	iPad	Tablet
6	3	Kindle Fire	Tablet

Query Editor	Query History	Explain	Messages
<pre> 1 --The above statement is equivalent to the following statement that uses the INNER JOIN clause. 2 3 SELECT * FROM products 4 INNER JOIN categories USING (category_id); </pre>			
Data Output			
category_id	product_id	product_name	category_name
integer	integer	character varying (255)	character varying (255)
1	1	iPhone	Smart Phone
2	1	Samsung Galaxy	Smart Phone
3	2	HP Elite	Laptop
4	2	Lenovo Thinkpad	Laptop
5	3	iPad	Tablet
6	3	Kindle Fire	Tablet

lvorenai/postgres@PostgreSQL ▾

Query Editor Query History Explain Messages

```
1 --Both tables have the same country_id column so you can use the NATURAL JOIN to join these tables as follows:
2
3 SELECT *
4 FROM city
5 NATURAL JOIN country;
```

Data Output

country_id	last_update	city_id	city	country
integer	timestamp without time zone	integer	character varying (50)	character varying (50)