Reading Postgres Information Schema Tables

Example with world database city table:

SELECT * FROM INFORMATION_SCHEMA.TABLE_CONSTRAINTS

This is just a list of constraints, which includes

constraint_name
table_name
constraint_type

For the city table we have

constraint_name: pk_city_id
table_name: city
constraint_type: PRIMARY KEY

constraint_name: fk_countrycode
table_name: city
constraint_type: FOREIGN KEY

SELECT * FROM INFORMATION_SCHEMA.CONSTRAINT_COLUMN_USAGE

This shows the columns associated with the constraints in the previous data. It shows:

constraint_name
table_name
column_name

For city table we have

constraint_name: pk_city_id
table_name: city
column_name: id

constraint_name: fk_countrycode
table_name: country
column_name: code

```
SELECT * FROM INFORMATION_SCHEMA.REFERENTIAL_CONSTRAINTS
```

This shows the references in each table. It shows:

```
constraint_name
unique_constraint_name
```

For city table we have:

```
constraint_name: fk_countrycode
unique_constraint_name: pk_city_id
```

Here's how we translate that:

The **`city`** table has 2 constraints: pk_city_id and fk_countrycode

`pk_city_id` is a **PRIMARY KEY** of the **`city`** table and refers to the **`id`** field of the table (it does not have an entry in the **`REFERENTIAL_CONSTRAINTS`** table because it does not refer to any other table - it just defines the **PRIMARY KEY** for the table).

`fk_countrycode` is a **FOREIGN KEY** that refers to the `code` column of the **`country`** table which is is the constraint **`pk_country_code`** (if you look for that in the **TABLE_CONSTRAINTS** table you will see that that is the **PRIMARY KEY** of the **`country`** table,)