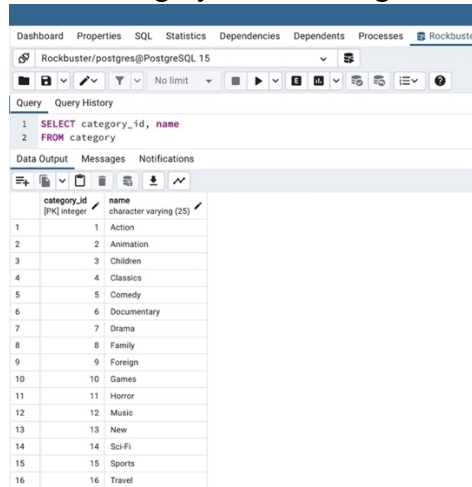


## TASK 3.3 SQL for Data Analyst

### Step 1:

Your first task is to find out what film genres already exist in the category table:

- Open pgAdmin 4, click the Rockbuster database, and open the Query Tool.
- Write a `SELECT` command to find out what film genres exist in the category table.
- Copy-paste the output into your answers document or write the answers out—it's up to you. Make sure to include the category ID for each genre.



The screenshot shows the pgAdmin 4 interface with the Rockbuster database selected. The Query Tool is open, displaying the following SQL query:

```
1 SELECT category_id, name
2 FROM category
```

The results are shown in a table with two columns: `category_id` (integer) and `name` (character varying (25)).

category_id	name
1	Action
2	Animation
3	Children
4	Classics
5	Comedy
6	Documentary
7	Drama
8	Family
9	Foreign
10	Games
11	Horror
12	Music
13	New
14	Sci-Fi
15	Sports
16	Travel

### Step 2:

You're ready to add some new genres! Write an `INSERT` statement to add the following genres to the category table: Thriller, Crime, Mystery, Romance, and War:

- Copy-paste your `INSERT` commands into your answers document.



The screenshot shows the pgAdmin 4 table editor for the `category` table. The table has two columns: `category_id` (integer) and `name` (character varying (25)).

category_id	name
1	Action
2	Animation
3	Children
4	Classics
5	Comedy
6	Documentary
7	Drama
8	Family
9	Foreign
10	Games
11	Horror
12	Music
13	New
14	Sci-Fi
15	Sports
16	Travel
17	Thriller
18	Crime
19	Mystery
20	Romance
21	War

- The CREATE statement below shows the constraints on the category table. Write a short paragraph explaining the various constraints that have been applied to the columns. What do these constraints do exactly? Why are they important?

```
CREATE TABLE category
(
  category_id integer NOT NULL DEFAULT nextval('category_category_id_seq'::regclass),
  name text COLLATE pg_catalog."default" NOT NULL,
  last_update timestamp with time zone NOT NULL DEFAULT now(),
  CONSTRAINT category_pkey PRIMARY KEY (category_id)
);
```

Constraints: usually specify what type of data a table or column can accept, making the querying of the database to be easier and quicker.

NOT NULL:

This helps to make sure that there are no empty or missing values.

PRIMARY KEY:

It gives a unique record in a table a unique ID.

### Step 3:

The genre for the movie *African Egg* needs to be updated to thriller. Work through the steps below to make this change:

- Write the SELECT statement to find the film\_id for the movie *African Egg*.

Answer:

```
SELECT film_id, title
FROM film
WHERE title = 'African Egg'
```

Query		Query History	
1	SELECT	film_id, title	
2	FROM	film	
3	WHERE	title = 'African Egg'	

Data Output		Messages	Notifications
	film_id [PK] integer	title character varying (255)	
1	5	African Egg	

- Once you have the film\_ID and category\_ID, write an UPDATE command to change the category in the film\_category table (not the category table). Copy-paste this command into your answers document.

Dashboard Properties SQL Statistics Dependencies

Rockbuster/postgres@PostgreSQL 15

Query Query History

```
1 UPDATE film_category
2 SET category_id = 17
3 WHERE film_id = 5
```

Data Output Messages Notifications

UPDATE 1

Query returned successfully in 1 secs 171 msec.

Dashboard Properties SQL Statistics

Rockbuster/postgres@PostgreSQL 15

Query Query History

```
1 SELECT category_id, film_id
2 FROM film_category
3 WHERE film_id = 5
```

Data Output Messages Notifications

	category_id [PK] smallint	film_id [PK] smallint
1	17	5

#### Step 4:

Since there aren't many movies in the mystery category, you and your manager decide to remove it from the category table. Write a DELETE command to do so and copy-paste it into your answers document.

Dashboard Properties SQL Statistics

Rockbuster/postgres@PostgreSQL 15

Query Query History

```
1 DELETE FROM category
2 WHERE name = 'Mystery'
```

Data Output Messages Notifications

DELETE 3

Query returned successfully in 68 msec.

#### Step 5:

Based on what you've learned so far, think about what it would be like to complete steps 1 to 4 with Excel instead of SQL. Are there any pros and cons to using SQL? Write a paragraph explaining your answer.

##### Pros:

Easier and faster to utilize and manage the information at hand.

By writing the query, we can get the information requested, instead of scrolling or having to make tables or extra sheets on excel.

##### Cons:

It's important to have SQL knowledge and to know how to utilize them. Having a cheat sheet helped a lot to start understanding the program,

#### Step 6:

Save your "Answers 3.3" document as a PDF and upload it here for your tutor to review.