

Task 3.3: SQL for Data Analysts**1b) SELECT * FROM category****1c)**

"category_id"	"name"	"last_update"
1	"Action"	"2006-02-15 09:46:27"
2	"Animation"	"2006-02-15 09:46:27"
3	"Children"	"2006-02-15 09:46:27"
4	"Classics"	"2006-02-15 09:46:27"
5	"Comedy"	"2006-02-15 09:46:27"
6	"Documentary"	"2006-02-15 09:46:27"
7	"Drama"	"2006-02-15 09:46:27"
8	"Family"	"2006-02-15 09:46:27"
9	"Foreign"	"2006-02-15 09:46:27"
10	"Games"	"2006-02-15 09:46:27"
11	"Horror"	"2006-02-15 09:46:27"
12	"Music"	"2006-02-15 09:46:27"
13	"New"	"2006-02-15 09:46:27"
14	"Sci-Fi"	"2006-02-15 09:46:27"
15	"Sports"	"2006-02-15 09:46:27"
16	"Travel"	"2006-02-15 09:46:27"

2a) INSERT INTO category(name) VALUES('Thriller'), ('Crime'), ('Mystery'), ('Romance')**2b)**

Constraints are significant because they structure the values in each column in a consistent format. Constraints make sure that values in a column are unique, not null or missing, and even check for values that may not belong; this ensures the data quality check.

Category_id (integer): Value must be an integer and cannot be null (in sequential order).

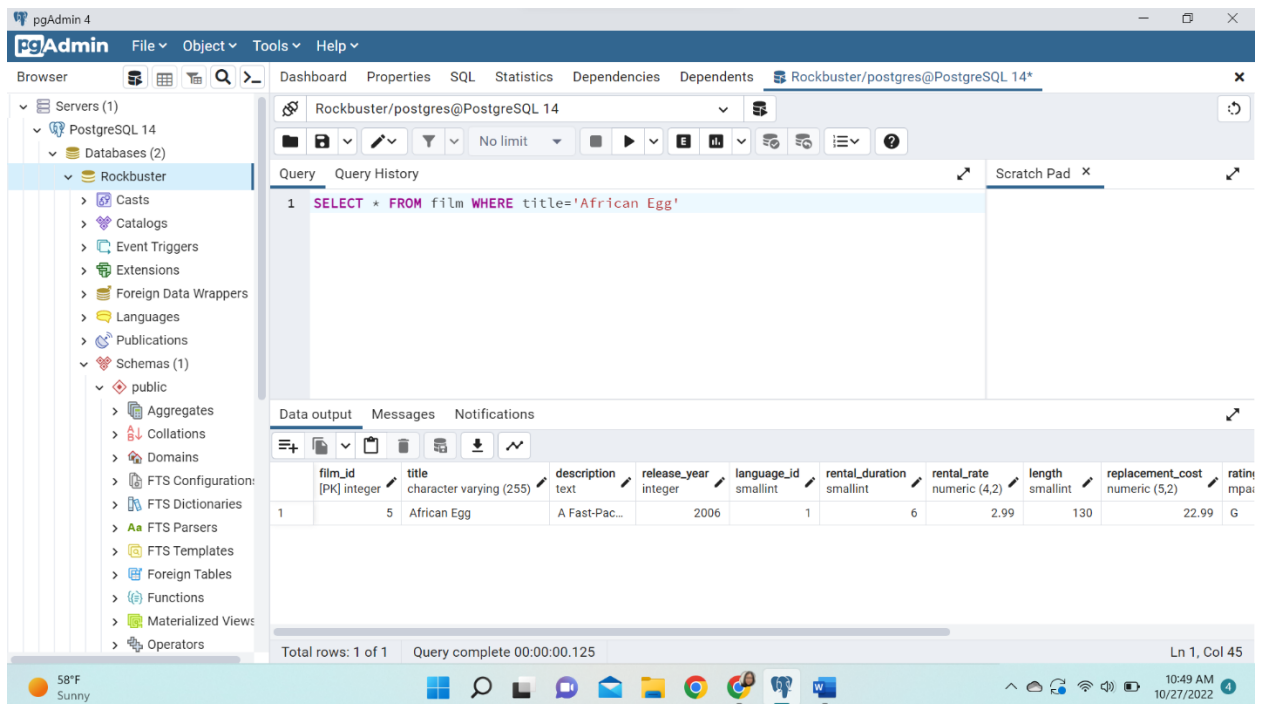
Category_id (pk): Primary key is category_id. Primary key constraint means that there is an unique identification number for each category.

Name (Character Varying (25)); Value must be text and cannot be null.

Last_update (Timestamp without time zone): Value is current timestamp and cannot be null.

3a) **SELECT * FROM film WHERE title='African Egg'**

Film id = 5



The screenshot shows the pgAdmin 4 interface. The left sidebar displays the database structure for 'Rockbuster' on a 'PostgreSQL 14' server. The main pane shows a SQL query: `SELECT * FROM film WHERE title='African Egg'`. Below the query, the 'Data output' tab is active, displaying a single row of results for the film 'African Egg'.

film_id [PK]	title	description	release_year	language_id	rental_duration	rental_rate	length	replacement_cost	rating
5	African Egg	A Fast-Pac...	2006	1	6	2.99	130	22.99	G

At the bottom of the interface, a status bar indicates 'Total rows: 1 of 1' and 'Query complete 00:00:00.125'.

3b) **SELECT category_id FROM film_category WHERE film_id = 5**

UPDATE film_category SET category_id=17 WHERE film_id = 5

4) **DELETE FROM category WHERE name='Mystery'**

5)

Pros:

- Easier to manage information because if you have the correct code written, SQL will automatically present the results. This means that you will also have faster results.
- SQL is easier to use in large datasets.

Cons:

- Updating the category-id is harder on SQL because in Excel there's the find and replace function
- Have to be well-versed in writing queries and using commands to get the correct result. Therefore, it'll take time and practice to learn SQL.

Bonus Task

```
CREATE TABLE employees
(
employee_id VARCHAR(30) NOT NULL,
name VARCHAR(50),
contact_number VARCHAR(30),
designation_id integer,
last_update timestamp NOT NULL DEFAULT now(),
CONSTRAINT employee_pkey PRIMARY KEY (employee_id)
)
```