

rockbuster/postgres@PostgreSQL 16

No limit

Query

Query History

1

2

SELECT name FROM category

Scratch Pad

Data Output

Messages

Graph Visualiser

Notifications

name

character varying (25)

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

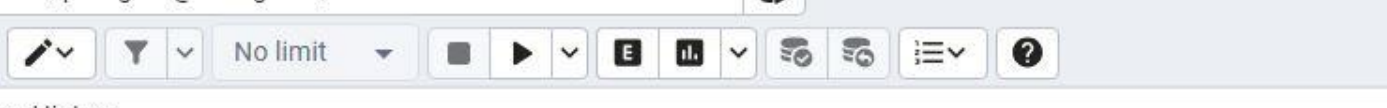
Sci-Fi

15

Sports

16

Travel



The screenshot shows the pgAdmin interface with the following components:

- Top Bar:** Displays the connection name "rockbuster/postgres@PostgreSQL 16".
- Toolbar:** Contains icons for file operations (folder, save, delete), editing (pencil), filtering (funnel), and execution (play, stop, refresh, etc.).
- Query Editor:** Shows a SQL query with line numbers:

```
1 INSERT INTO category(name)
2 VALUES('Thriller'),('Crime'),('Mystery'),('Romance'),('War');
```
- Execution Results:** Below the query editor, it shows "Data Output", "Messages", "Graph Visualiser", and "Notifications". The "Messages" tab is active, displaying:

```
INSERT 0 5
Query returned successfully in 68 msec.
```

In the provided CREATE TABLE statement for the “category” table, several constraints have been applied to ensure data integrity and enforce specific rules in the columns:

- **NOT NULL Constraint:** the “category\_id,” “name” and “last\_update” columns are all marked as “NOT NULL,” meaning that every row in the table must have a value for these columns. This ensures that essential information is always provided and prevent the insertion of incomplete or missing data.
- **DEAFULT Constraint:** the “category\_id” column has default constraint set to 2nextval(category\_category\_id\_seq::regclass)”, which means that if a value is not explicitly provided for this column during an INSERT operation, it will automatically be populated with the next value from the specified sequence.
- **PRIMARY KEY Constraint:** the category\_id column is designated as the primary key for the “category” table. The PRIMARY KEY constraint ensures that each value in this column is unique, and it serves as the main

identifier for each row, as the column can't contain any null or duplicate values. This constraint is crucial for maintaining data integrity and establishing relationships with other tables.

- **DEFAULT Constraint for last\_update:** The “last\_update” column has default constraint set to “now (),” which means that if a value is not explicitly provided for this column during an INSERT operation, it will be automatically set to the current timestamp with time zone. This helps in keeping track of when each record was last updated.

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Query

Query History

Scratch Pad X

1 SELECT film\_id FROM film WHERE title='African Egg';

Data Output

Messages

Graph Visualiser X

Notifications

film\_id  
[PK] integer

15

Dashboard X Properties X SQL X Statistics X Dependencies X Dependents X Processes X rockbuster/postgres@PostgreSQL 16 X

rockbuster/postgres@PostgreSQL 16

No limit

Query

Query History

Scratch Pad X

1 SELECT category\_id

2 From category

3 WHERE name = 'Thriller'

Data Output

Messages

Graph Visualiser X

Notifications

category\_id  
[PK] integer

117

[illegible]

Query Query History

Scratch Pad

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

Data Output Messages Graph Visualiser X Notifications

UPDATE 1

Query returned successfully in 66 msec.

The screenshot shows the pgAdmin interface. At the top, the connection is 'rockbuster/postgres@PostgreSQL 16'. Below the connection bar is a toolbar with icons for file operations, query execution, and other database functions. The main window is divided into two panes. The left pane, titled 'Query', shows a SQL query: 

```
1 DELETE FROM category
2 WHERE
3 NAME = 'Mystery';
```

 The right pane, titled 'Scratch Pad', is empty. Below the query editor, there are tabs for 'Data Output', 'Messages', 'Graph Visualiser', and 'Notifications'. The 'Messages' tab is selected, showing the output: 

```
DELETE 1
Query returned successfully in 137 msec.
```

Query Query History

Scratch Pad ✕

```
1 DELETE FROM category
2 WHERE
3 NAME = 'Mystery';
```

Data Output Messages Graph Visualiser X Notifications

DELETE 1

Query returned successfully in 137 msec.

5)Excel provides a user-friendly interface that is easily accessible, catering to users with varying levels of technical expertise. Its graphical interface enables simple data visualization and easy application of formula for calculations. Excel is particularly well suited for small 'to medium sized datasets, where the complexity of SQL is unnecessary. However, Excel may face challenges with larger datasets, resulting in slower processing times and a higher risk of errors. In contrast, SQL excels in managing complex data relationships and advanced querying capabilities, making it more suitable for intricate data analysis tasks, While excel is ideal for basic data manipulation .SQL offers greater power,efficiency,and scalability ,especially when handling large data sets and complex queries.