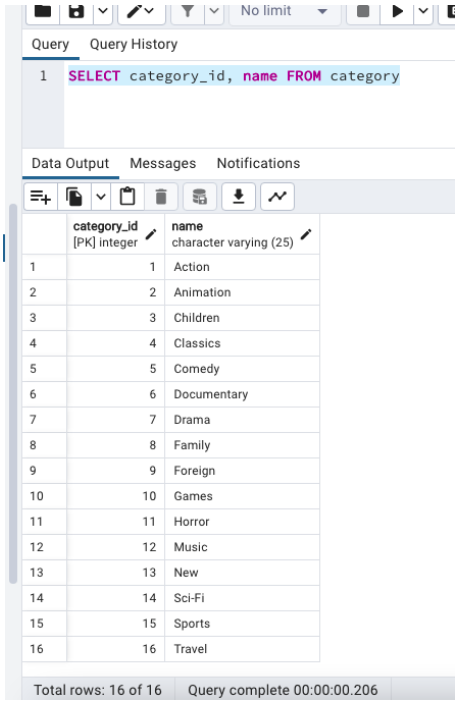
3.3: SQL FOR DATA ANALYSTS

STEP 1

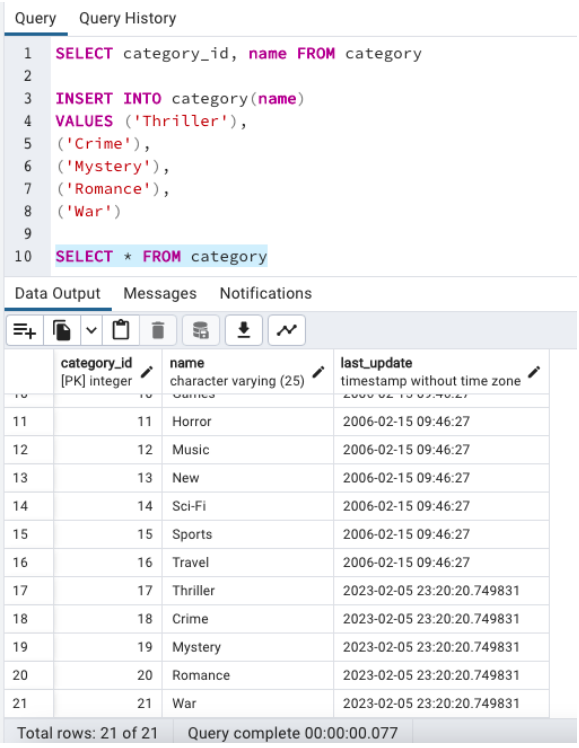
Your first task is to find out what film genres already exist in the category table:

- Write a SELECT command to find out what film genres exist in the category table.



STEP 2

Write an INSERT statement to add the following genres to the category table: Thriller, Crime, Mystery, Romance, and War.



```
  CREATE TABLE category
(
  category_id integer NOT NULL DEFAULT nextval('category_c
ategory_id_seq'::regclass),
  name text COLLATE pg_catalog."default" NOT NULL,
  last_update timestamp with time zone NOT NULL DEFAULT no
w(),
  CONSTRAINT category_pkey PRIMARY KEY (category_id)
);
```

The CREATE statement 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?

- NOT NULL - A constraint to make sure that there is no missing value in every column
- PRIMARY KEY - Category_id is the primary key column. The primary key column can't contain any null or duplicate values

STEP 3

The genre for the movie *African Egg* needs to be updated to thriller.

- Write the SELECT statement to find the film_id for the movie *African Egg*.

```
13
14  SELECT category_ID, film_ID
15  FROM film_category
16  WHERE film_ID='5'
```

Data Output | Messages | Notifications

	category_id [PK] smallint	film_id [PK] smallint
1	8	5

```
9
10  SELECT film_id, title
11  FROM film
12  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).

```
18  UPDATE film_category
19  SET category_id=17
20  WHERE film_id=5
21
22
```

Data Output | Messages | Notifications

```
UPDATE 1

Query returned successfully in 666 msec.
```

```
22  SELECT*FROM film_category
23  WHERE film_id=5
```

Data Output | Messages | Notifications

	film_id [PK] smallint	category_id [PK] smallint	last_update timestamp without time zone
1	5	17	2023-02-06 00:02:27.78945

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.

```
25  DELETE
26  FROM category
27  WHERE name='Mystery'
```

Data Output | Messages | Notifications

```
DELETE 1

Query returned successfully in 363 msec.
```

```
29  SELECT*FROM category
```

Data Output | Messages | Notifications

	category_id [PK] integer	name character varying (25)	last_update timestamp without time zone
10	10	Games	2006-02-15 09:46:27
11	11	Horror	2006-02-15 09:46:27
12	12	Music	2006-02-15 09:46:27
13	13	New	2006-02-15 09:46:27
14	14	Sci-Fi	2006-02-15 09:46:27
15	15	Sports	2006-02-15 09:46:27
16	16	Travel	2006-02-15 09:46:27
17	17	Thriller	2023-02-05 23:20:20.749831
18	18	Crime	2023-02-05 23:20:20.749831
19	20	Romance	2023-02-05 23:20:20.749831
20	21	War	2023-02-05 23:20:20.749831

STEP 5

Considering the small size of the *category* and *film_category* tables, Excel still seems to be easier to manipulate, edit and delete data.

SQL would be more beneficial for datasets with more rows where more scrolling would be required in Excel.

BONUS TASK

The SQL query contains some typos. See if you can fix it based on what you've learned so far about SQL and data types; then try running it in pgAdmin 4.

```
CREATE TBL 3EMPLOYEES
 {
employee_id VARINT(30) NOT EMPTY
name VARCHAR(50),
contact_number VARCHAR(30) ,
designation_id INT,
last_update TIMESTAMP NOT NULL DEF now()
CONSTRAIN employee_pkey PRIMARY KEY (employee_id)
}
```

```
31  CREATE TABLE employees
32  (
33  employee_ID SERIAL PRIMARY KEY,
34  name VARCHAR(50),
35  contact_number VARCHAR(30),
36  designation_id INT,
37  last_update TIMESTAMP NOT NULL DEFAULT NOW()
38  )
```

Data Output | Messages | Notifications

```
CREATE TABLE

Query returned successfully in 79 msec.
```