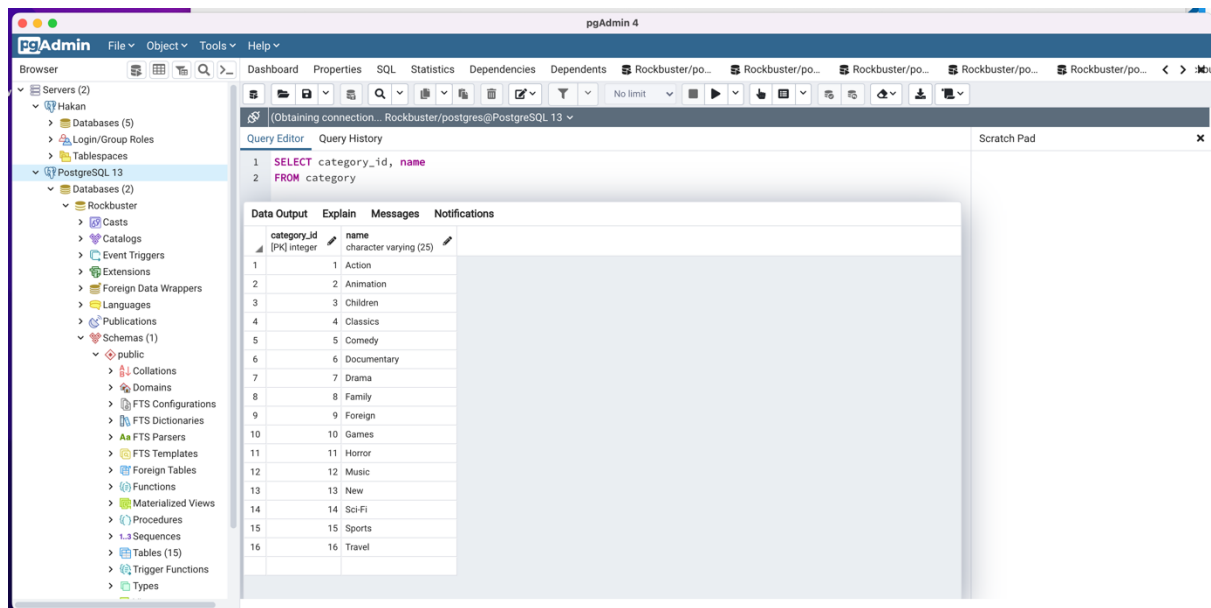


Task_3 – SQL for Data Analysts

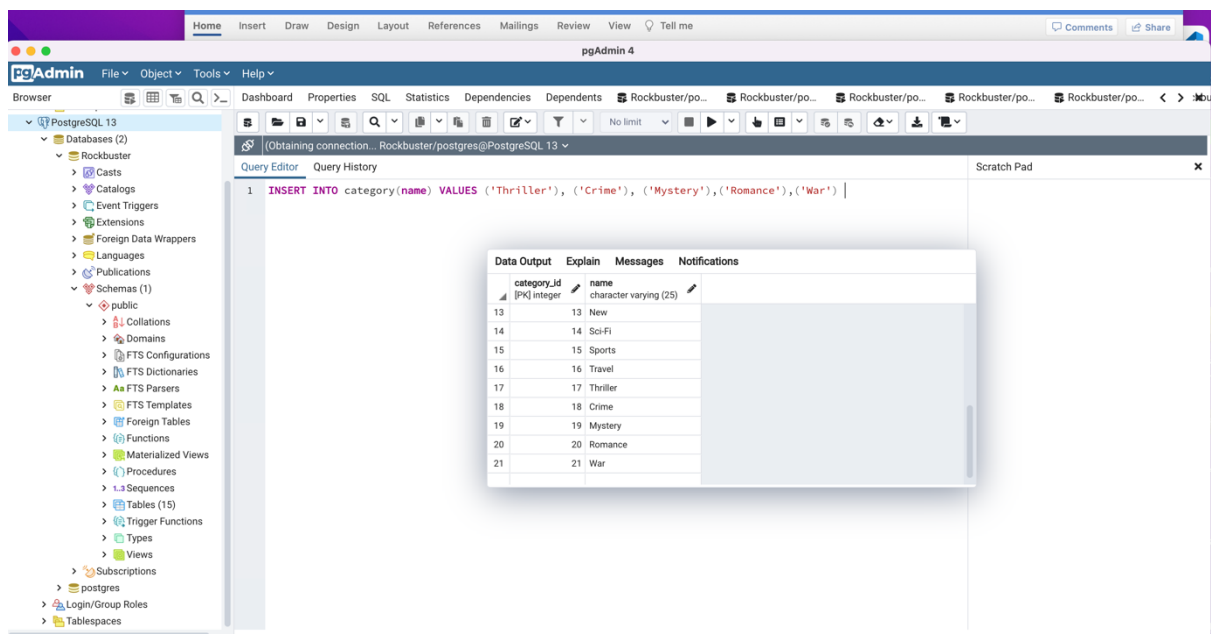
Step_1:



Step_2:

Code:

```
INSERT INTO category(name) VALUES ('Thriller'), ('Crime'), ('Mystery'), ('Romance'), ('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)
);
```

NOT NULL constraint: This command ensures that none of the columns have any empty and missing value.

category_id: Data type is integer and value cannot be null.

name: Data type is text and value cannot be null.

last_update: Data type is timestamp with time zone and value cannot be null

PRIMARY KEY constraint: is a unique id for each record in a table

Category_pkey is the category_id is set as the primary key.

- Constraints specify what type of data a table and column can accept, and they are set when a table is created. We can prevent the duplicates, missing or null values using constraints.

Step_3:

The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane displays the database structure: PostgreSQL 13 > Databases (2) > Rockbuster > public > Tables (15). The 'Query Editor' pane contains the following SQL query:

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

The 'Data Output' pane shows the results of the query:

film_id	title
1	5 African Egg

Finding category_id

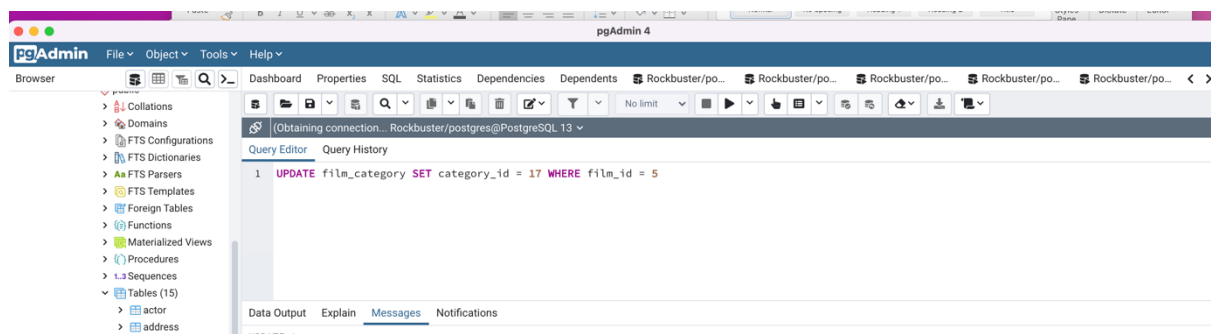
The screenshot shows the pgAdmin 4 interface. On the left, the 'Browser' pane displays the database structure: Servers (2) > Hakan > Databases (5) > PostgreSQL 13 > Databases (2) > Rockbuster > public > Tables (15). The 'Query Editor' pane contains the following SQL query:

```
1 SELECT category_id FROM film_category
2 Where film_id =5
```

The 'Data Output' pane shows the results of the query:

category_id
1

Updating the category_id 8 to category_id 17



Step_4

DELETE FROM category
WHERE name= 'Mystery'

Step_5

SQL uses multiple related table that gives you a multi dimensional feel. Excel can link multiple worksheets, but that's not its strength. Excel is a great program for simplicity and flexibility. SQL databases are excellent choices for storage, manipulation, and analysis of large amount of data.

Bonus_task

```
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)
}
```

CORRECTION:

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