Task 3.3 - SQL for Data Analysts

Step 1:

SELECT * FROM category

	category_id [PK] integer	name character varying (25)	last_update timestamp without time zone
1	1	Action	2006-02-15 09:46:27
2	2	Animation	2006-02-15 09:46:27
3	3	Children	2006-02-15 09:46:27
4	4	Classics	2006-02-15 09:46:27
5	5	Comedy	2006-02-15 09:46:27
6	6	Documentary	2006-02-15 09:46:27
7	7	Drama	2006-02-15 09:46:27
8	8	Family	2006-02-15 09:46:27
9	9	Foreign	2006-02-15 09:46:27
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

Step 2:

INSERT INTO category (name)
VALUES ('Thriller')

...

	category_id [PK] integer	name character varying (25)	last_update timestamp without time zone
1	1	Action	2006-02-15 09:46:27
2	2	Animation	2006-02-15 09:46:27
3	3	Children	2006-02-15 09:46:27
4	4	Classics	2006-02-15 09:46:27
5	5	Comedy	2006-02-15 09:46:27
6	6	Documentary	2006-02-15 09:46:27
7	7	Drama	2006-02-15 09:46:27
8	8	Family	2006-02-15 09:46:27
9	9	Foreign	2006-02-15 09:46:27
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	2022-08-21 16:35:05.55922
18	18	Crime	2022-08-21 16:35:11.982628
19	19	Mystery	2022-08-21 16:35:16.126415
20	20	Romance	2022-08-21 16:35:18.148031
21	21	War	2022-08-21 16:35:20.745568

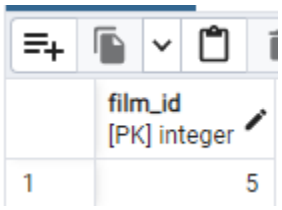
The constraints applied in the CREATE statement are:

NOT NULL and PRIMARY KEY

1. **category_id integer NOT NULL:** This ensures that there aren't any empty or missing values.
2. **name text COLLATE pg_catalog. "default" NOT NULL:** This ensures that there aren't any empty or missing values.
3. **last_update timestamp with time zone NOT NULL DEFAULT now():** This ensures that there aren't any empty or missing values.
4. **CONSTRAINT category_pkey PRIMARY KEY (category_id):** This ensures that category_id is the primary key and it must be unique.

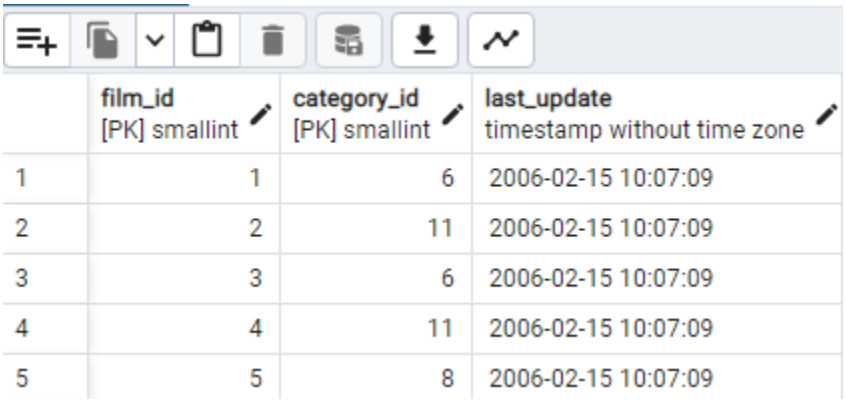
Step 3:

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



	film_id [PK] integer
1	5

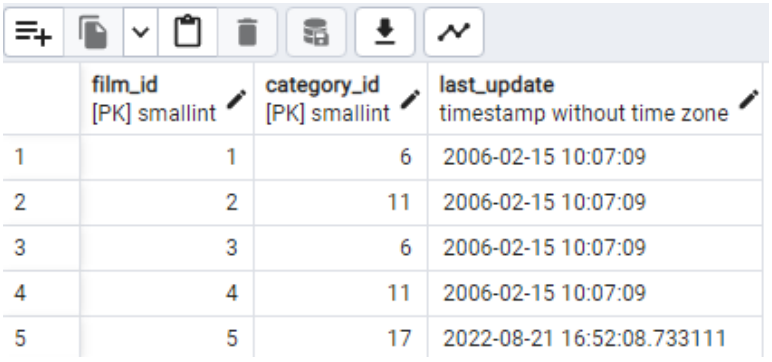
```
SELECT *
FROM film_category
```



	film_id [PK] smallint	category_id [PK] smallint	last_update timestamp without time zone
1	1	6	2006-02-15 10:07:09
2	2	11	2006-02-15 10:07:09
3	3	6	2006-02-15 10:07:09
4	4	11	2006-02-15 10:07:09
5	5	8	2006-02-15 10:07:09

```
UPDATE film_category
SET category_id = 17
WHERE film_id = 5
```

```
SELECT * FROM film_category
ORDER BY 1
```



	film_id [PK] smallint	category_id [PK] smallint	last_update timestamp without time zone
1	1	6	2006-02-15 10:07:09
2	2	11	2006-02-15 10:07:09
3	3	6	2006-02-15 10:07:09
4	4	11	2006-02-15 10:07:09
5	5	17	2022-08-21 16:52:08.733111

Step 4:

```
DELETE FROM category
WHERE category_id = 19
```

	category_id [PK] integer	name character varying (25)	last_update timestamp without time zone
1	1	Action	2006-02-15 09:46:27
2	2	Animation	2006-02-15 09:46:27
3	3	Children	2006-02-15 09:46:27
4	4	Classics	2006-02-15 09:46:27
5	5	Comedy	2006-02-15 09:46:27
6	6	Documentary	2006-02-15 09:46:27
7	7	Drama	2006-02-15 09:46:27
8	8	Family	2006-02-15 09:46:27
9	9	Foreign	2006-02-15 09:46:27
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	2022-08-21 16:35:05.55922
18	18	Crime	2022-08-21 16:35:11.982628
19	20	Romance	2022-08-21 16:35:18.148031
20	21	War	2022-08-21 16:35:20.745568

Step 5:

Using SQL is much more efficient and faster when attempting to update tables. If you know exactly what you are querying, I believe you can save time and extract the information you need much more quickly. In addition, adding constraints when creating tables can ensure that you don’t have duplicates or null values.

Bonus Task

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