

SQL for Data Analyst

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Exercise 3.3

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1)

Query Query History

```
1 SELECT * FROM category;
```

Data Output Messages Notifications

| | 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 |

Total rows: 16 Query complete 00:00:00.238

2)

Query Query History

```
1 INSERT INTO category (name)
2 VALUES
3     ('Thriller'),
4     ('Crime'),
5     ('Mystery'),
6     ('Romance'),
7     ('War');
```

Data Output Messages Notifications

INSERT 0 5

Query returned successfully in 111 msec.

2.A) **category_id integer NOT NULL DEFAULT nextval('category_category_id_seq'::regclass):** This constraint ensures that the category_id column is of integer type, cannot be null, and automatically gets a value generated by the sequence category_category_id_seq for each new record. This guarantees a unique, automatically incrementing identifier for each category.

name text COLLATE pg_catalog."default" NOT NULL: This constraint enforces that the name column must always have a value (it cannot be null) and ensures that the text data uses the default collation for string comparison. This prevents categories from being added without a name, maintaining consistency.

last_update timestamp with time zone NOT NULL DEFAULT now(): This constraint ensures that every record must have a last_update value (it cannot be null), and the default value is set to the current timestamp (now()), including the time zone. This helps in tracking when each category record was last updated.

CONSTRAINT category_pkey PRIMARY KEY (category_id): This defines the category_id column as the primary key for the table, ensuring that each category has a unique category_id and preventing any duplicate entries.

3.a)

Query

Query History

1

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

Data Output

Messages

Notifications

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SQL

Showin

film_id

[PK] integer

1

5

3.b)

Query

Query History

1

SELECT category_id FROM category WHERE name = 'Thriller';

Data Output

Messages

Notifications

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SQL

Showing rows: 1 to 3

Page N

category_id

[PK] integer

1

17

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

Data Output Messages Notifications

UPDATE 1

Query returned successfully in 115 msec.

4)

Query Query History

```
1 DELETE FROM category WHERE name = 'Mystery';
```

Data Output Messages Notifications

DELETE 3

Query returned successfully in 75 msec.

5)

Excel and SQL are both powerful tools for data management. Excel is user-friendly, ideal for small to medium datasets. SQL excels with large-scale data, providing efficient querying, automation, and integration for relational databases. It is suited for handling complex data operations, ensuring consistency, and enabling collaboration in multi-user environments.