

Databases & SQL for Analysts

3.5: Filtering Data

1. SQL Queries for Film Lists

- **Film title contains the word Uptown in any position:**

```
1. SELECT film_id, title, description
2. FROM public.film
3. WHERE title LIKE '%Uptown%'
4. ORDER BY film_id
```

- **Film length is more than 120 minutes and rental rate is more than 2.99:**

```
1. SELECT film_id, title, description, length, rental_rate
2. FROM public.film
3. WHERE length > 120 AND rental_rate > 2.99
4. ORDER BY film_id
```

- **Rental duration is between 3 and 7 days (where 3 and 7 aren't inclusive):**

```
1. SELECT film_id, title, description, rental_duration
2. FROM public.film
3. WHERE rental_duration > 3 AND rental_duration < 7
4. ORDER BY film_id
```

- **Film replacement cost is less than 14.99:**

```
1. SELECT film_id, title, description, replacement_cost
2. FROM public.film
3. WHERE replacement_cost < 14.99
4. ORDER BY film_id
```

- **Film rating is either PG or G:**

```
1. SELECT film_id, title, description, rating
2. FROM public.film
3. WHERE rating = 'PG' OR rating = 'G'
4. ORDER BY film_id
```

2. SQL Queries for Films with Either PG or G Rating List

- **Count of the movies:** 372 movies

```
1. SELECT
2.     COUNT(film_id) AS count_of_movies
3. FROM public.film
4. WHERE rating = 'PG' OR rating = 'G'
```

- **Average movie rental rate:** 2.97 USD

```
1. SELECT
2.     AVG(rental_rate) AS average_movie_rental_rate
3. FROM public.film
4. WHERE rating = 'PG' OR rating = 'G'
```

- **Maximum rental duration and minimum rental duration:** 7 and 3 days

```
1. SELECT
2.     MAX(rental_duration) AS maximum_rental_duration,
3.     MIN(rental_duration) AS minimum_rental_duration
4. FROM public.film
5. WHERE rating = 'PG' OR rating = 'G'
```

3. Combined SQL Script

```
1. SELECT
2.     COUNT(film_id) AS count_of_movies,
3.     AVG(rental_rate) AS average_movie_rental_rate,
4.     MAX(rental_duration) AS maximum_rental_duration,
5.     MIN(rental_duration) AS minimum_rental_duration
6. FROM public.film
7. WHERE rating = 'PG' OR rating = 'G'
```

4. Combined SQL Script with Rating Grouping

```
1. SELECT rating,
2.     COUNT(film_id) AS count_of_movies,
3.     AVG(rental_rate) AS average_movie_rental_rate,
4.     MAX(rental_duration) AS maximum_rental_duration,
5.     MIN(rental_duration) AS minimum_rental_duration
6. FROM public.film
7. WHERE rating = 'PG' OR rating = 'G'
8. GROUP BY rating
```

rating	count_of_movies	average_movie_rental_rate	maximum_rental_duration	minimum_rental_duration
PG	194	3.0518556701030928	7	3
G	178	2.888876404494382	7	3