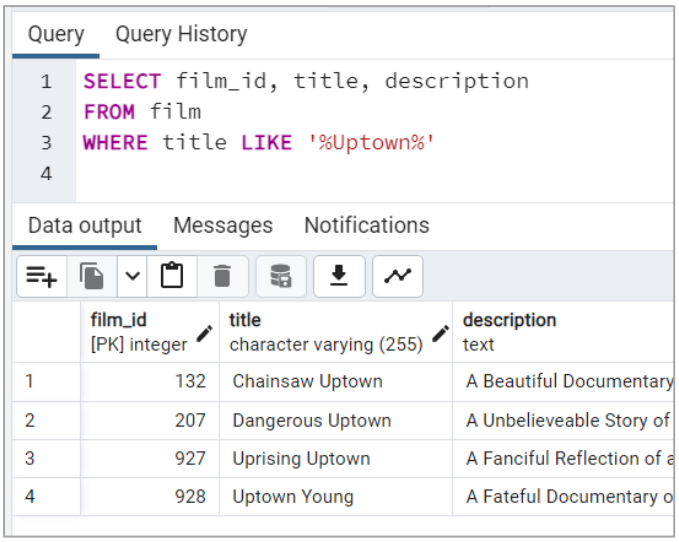
Exercise 3.5 - Filtering Data

Step 1 :

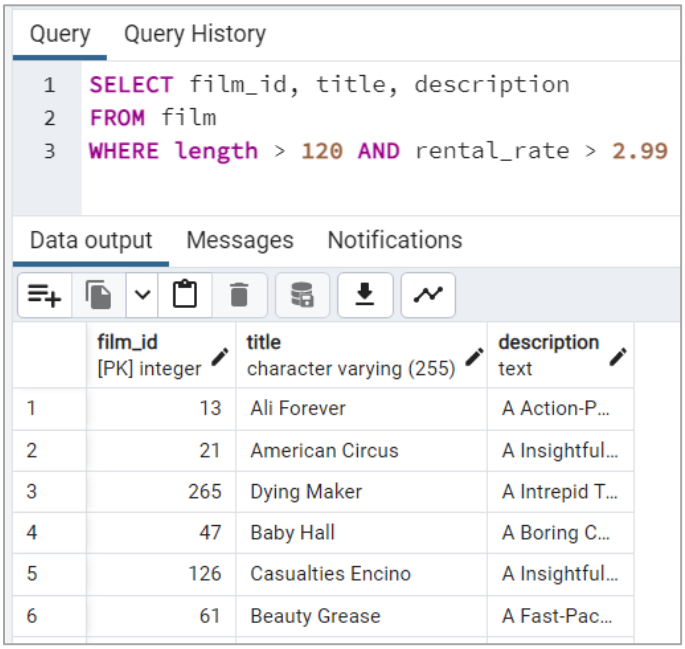
Write some SQL queries to return a list of films that meet the following conditions. Your results tables should include the columns “film_ID,” “title,” and “description”.

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



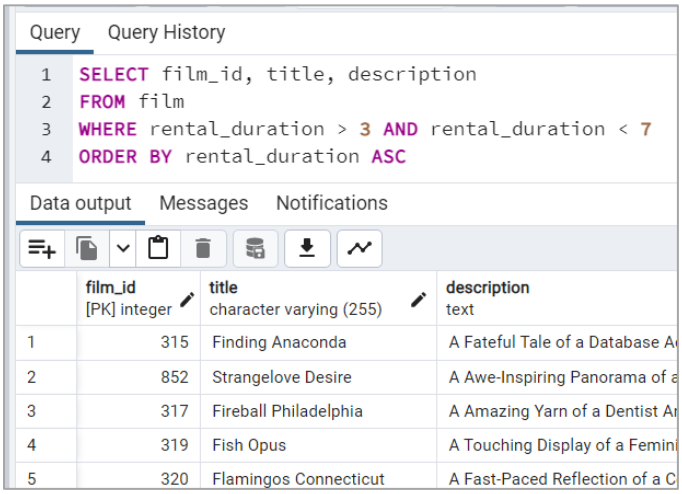
	film_id [PK] integer	title character varying (255)	description text
1	132	Chainsaw Uptown	A Beautiful Documentary
2	207	Dangerous Uptown	A Unbelieveable Story of
3	927	Uprising Uptown	A Fanciful Reflection of a
4	928	Uptown Young	A Fateful Documentary o

- 1.b: Film length is more than 120 minutes and rental rate is more than 2.99



	film_id [PK] integer	title character varying (255)	description text
1	13	Ali Forever	A Action-P...
2	21	American Circus	A Insightful...
3	265	Dying Maker	A Intrepid T...
4	47	Baby Hall	A Boring C...
5	126	Casualties Encino	A Insightful...
6	61	Beauty Grease	A Fast-Pac...

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



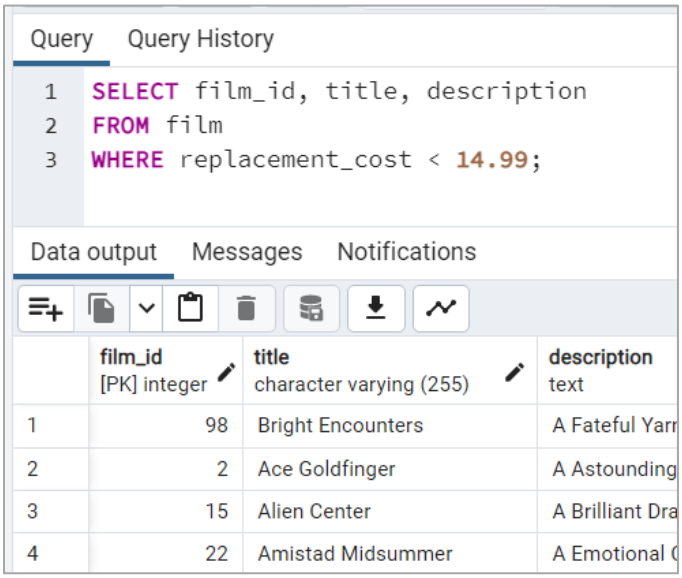
Query | Query History

```
SELECT film_id, title, description
FROM film
WHERE rental_duration > 3 AND rental_duration < 7
ORDER BY rental_duration ASC
```

Data output | Messages | Notifications

	film_id [PK] integer	title character varying (255)	description text
1	315	Finding Anaconda	A Fateful Tale of a Database A
2	852	Strangelove Desire	A Awe-Inspiring Panorama of a
3	317	Fireball Philadelphia	A Amazing Yarn of a Dentist Ar
4	319	Fish Opus	A Touching Display of a Femini
5	320	Flamingos Connecticut	A Fast-Paced Reflection of a C

- 1.d: Film replacement cost is less than 14.99



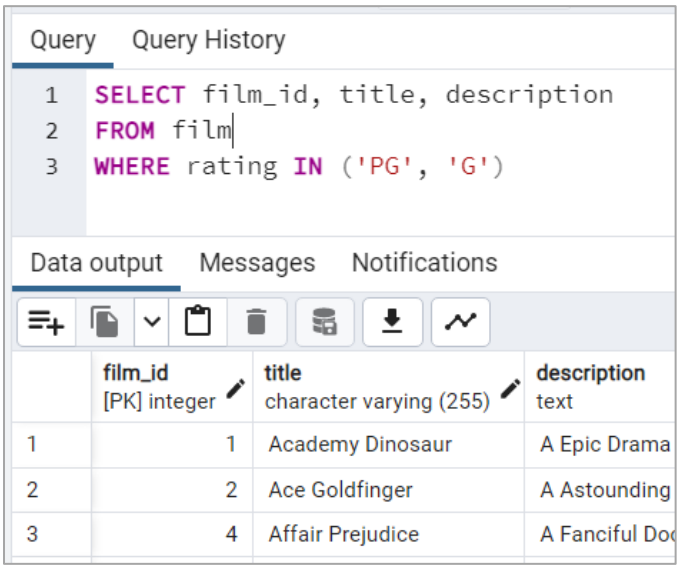
Query | Query History

```
SELECT film_id, title, description
FROM film
WHERE replacement_cost < 14.99;
```

Data output | Messages | Notifications

	film_id [PK] integer	title character varying (255)	description text
1	98	Bright Encounters	A Fateful Yarr
2	2	Ace Goldfinger	A Astounding
3	15	Alien Center	A Brilliant Dra
4	22	Amistad Midsummer	A Emotional (

- 1.e: Film rating is either PG or G



Query | Query History

```
SELECT film_id, title, description
FROM film
WHERE rating IN ('PG', 'G')
```

Data output | Messages | Notifications

	film_id [PK] integer	title character varying (255)	description text
1	1	Academy Dinosaur	A Epic Drama
2	2	Ace Goldfinger	A Astounding
3	4	Affair Prejudice	A Fanciful Do

Step 3.

The inventory team has asked for the following information about this list:

- Count of the movies
- Average rental rate
- Maximum rental duration and minimum rental duration

→

Query | Query History

```
1  SELECT rating,
2  COUNT(title),
3  AVG(rental_rate),
4  MAX(rental_duration),
5  MIN(rental_duration)
6  FROM film
7  WHERE rating IN ('PG', 'G')
8  GROUP BY rating;
```

Data output | Messages | Notifications

	rating mpaa_rating	count bigint	avg numeric	max smallint	min smallint
1	G	178	2.888876404	7	3
2	PG	194	3.051855670	7	3

Step 3.

To make the output easier for your coworkers to understand, give your aggregate columns the following aliases: “count of movies,” “average movie rental rate,” “maximum rental duration”, and “minimum rental duration”. Run the query and transfer the result into your Excel file on a new sheet as well as the code you used to get there.

Query | Query History

```
1  SELECT rating,
2  COUNT(title) 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 film
7  WHERE rating IN ('PG', 'G')
8  GROUP BY rating;
```

Data output | Messages | Notifications

	rating mpaa_rating	count_of_movies bigint	average_movie_rental_rate numeric	maximum_rental_duration smallint	minimum_rental_duration smallint
1	G	178	2.888876404494382	7	3
2	PG	194	3.0518556701030928	7	3

Step 4.

The customer team would like to see the fields you calculated in step 3 grouped by rating. The totals in your results table should look the same as in step 3 but broken down by the rating column. Copy-paste your query and its output in your answers on a new sheet.

Query | Query History

```
1  SELECT rating,
2  COUNT(title) AS count_of_movies, AVG(rental_rate) AS average_movie_rental_rate,
3  MAX(rental_duration) AS maximum_rental_duration,
4  MIN(rental_duration) AS minimum_rental_duration
5  FROM film
6  WHERE rating IN ('PG', 'G')
7  GROUP BY rating;
```

Data output | Messages | Notifications

	rating mpaa_rating	count_of_movies bigint	average_movie_rental_rate numeric	maximum_rental_duration smallint	minimum_rental_duration smallint
1	G	178	2.888876404494382	7	3
2	PG	194	3.0518556701030928	7	3