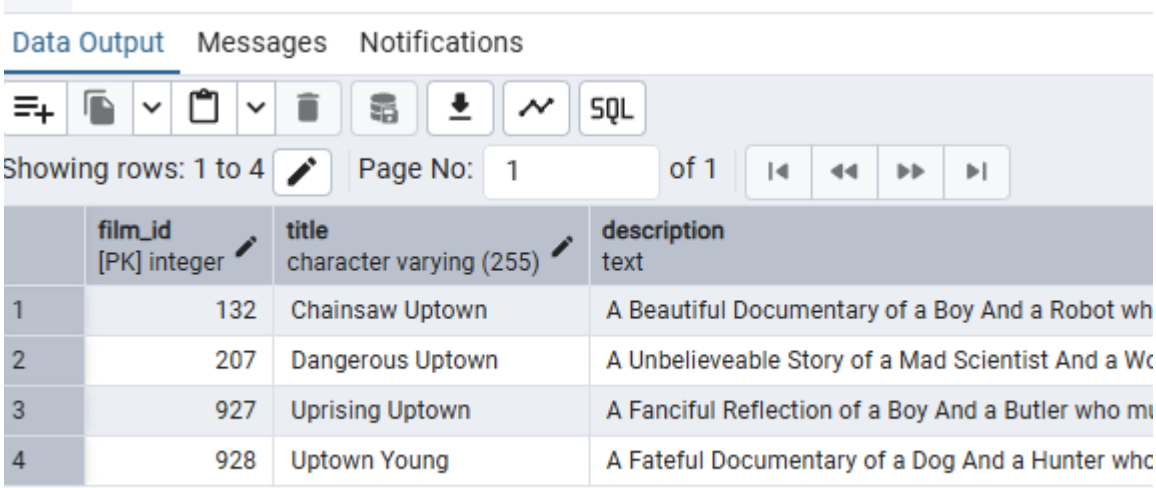
Now that you know how to filter data using the WHERE and HAVING clauses, the customer team, the inventory team, and the management board have sent you a list of questions, and they want answers ASAP!

Directions

1. Write SQL queries to return lists of films that meet the following conditions. Download your outputs for each query as CSV files using the pgadmin inbuilt functionality. Copy your query and results table (including the columns “film_ID,” “title,” and “description”) into the corresponding CSV file.
    - Film title contains the word *Uptown* in any position

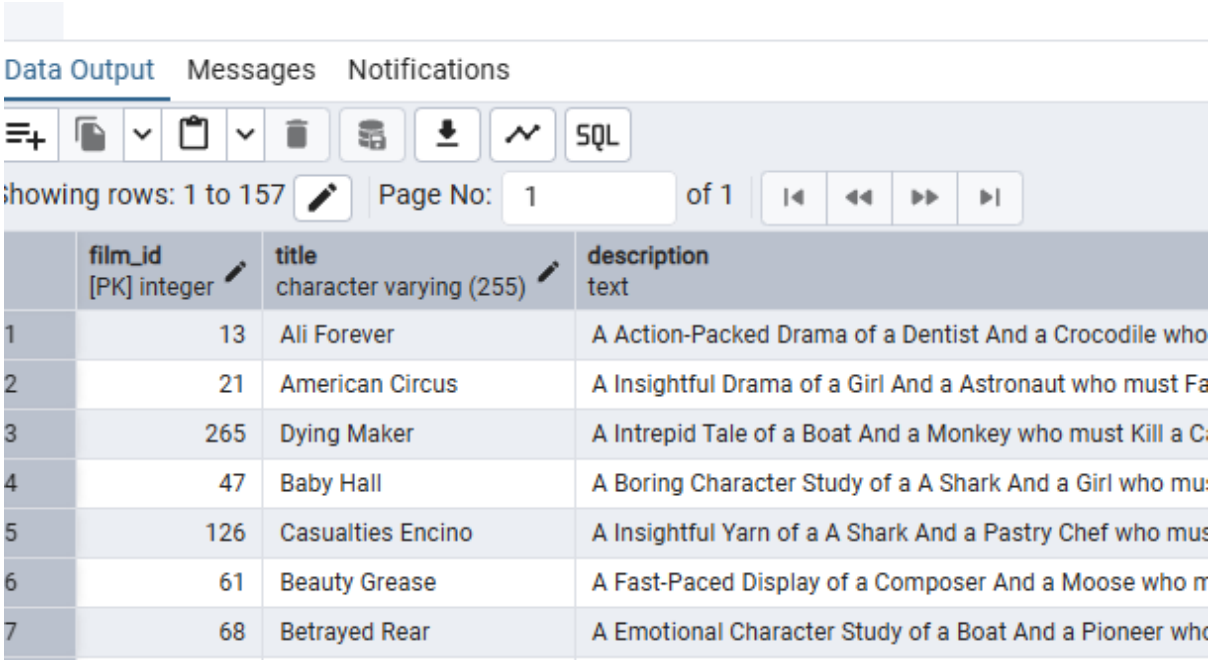
```
SELECT film_id,
    title,
    description
FROM film
WHERE title LIKE '%Uptown%'
```



	film_id [PK] integer	title character varying (255)	description text
1	132	Chainsaw Uptown	A Beautiful Documentary of a Boy And a Robot wh
2	207	Dangerous Uptown	A Unbelieveable Story of a Mad Scientist And a Wo
3	927	Uprising Uptown	A Fanciful Reflection of a Boy And a Butler who mu
4	928	Uptown Young	A Fateful Documentary of a Dog And a Hunter who

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

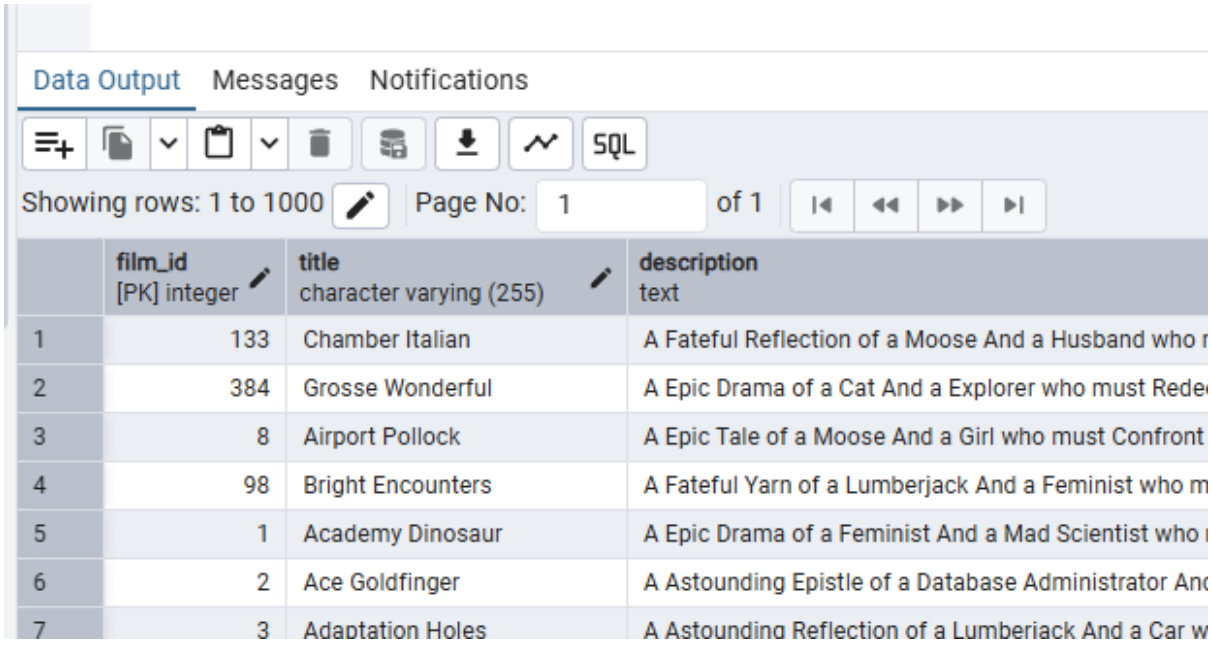
```
SELECT film_id,
    title,
    description
FROM film
WHERE length > 120 AND rental_rate > 2.99
```



	film_id [PK] integer	title character varying (255)	description text
1	13	Ali Forever	A Action-Packed Drama of a Dentist And a Crocodile who
2	21	American Circus	A Insightful Drama of a Girl And a Astronaut who must Fa
3	265	Dying Maker	A Intrepid Tale of a Boat And a Monkey who must Kill a C
4	47	Baby Hall	A Boring Character Study of a A Shark And a Girl who mu
5	126	Casualties Encino	A Insightful Yarn of a A Shark And a Pastry Chef who mus
6	61	Beauty Grease	A Fast-Paced Display of a Composer And a Moose who m
7	68	Betrayed Rear	A Emotional Character Study of a Boat And a Pioneer who

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

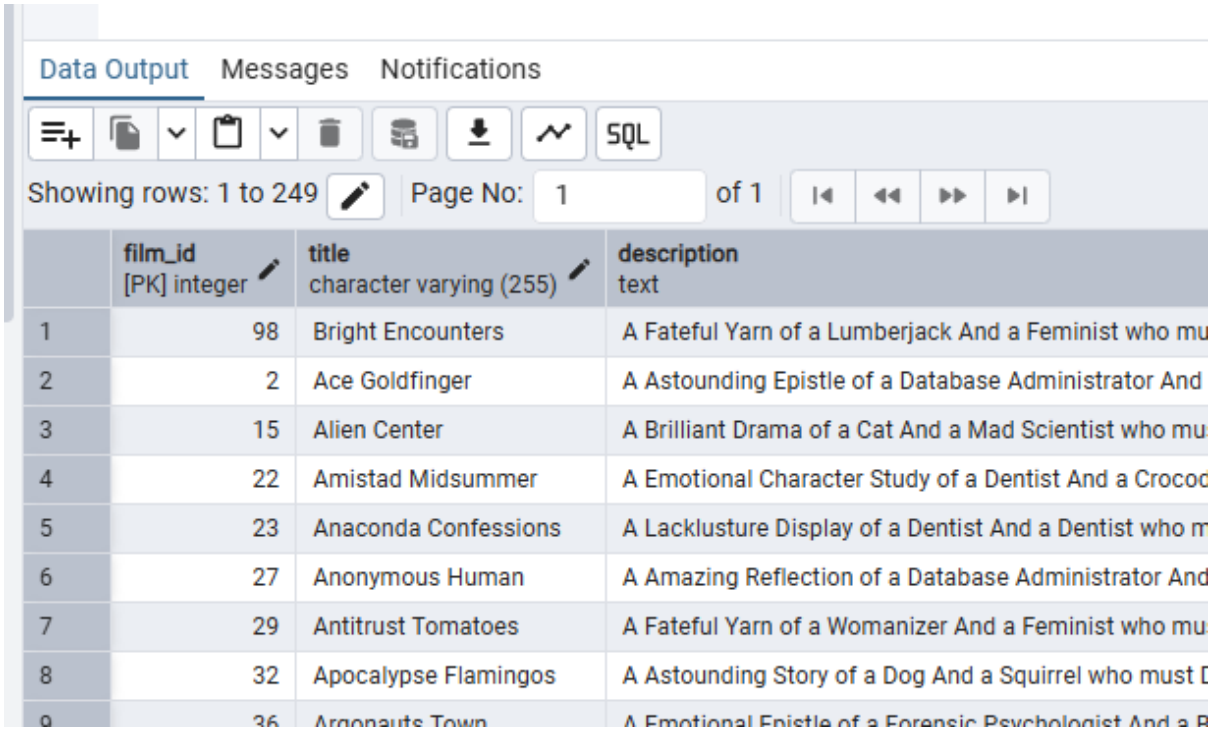
```
SELECT film_id,
    title,
    description
FROM film
WHERE rental_duration BETWEEN 3 AND 7
```



	film_id [PK] integer	title character varying (255)	description text
1	133	Chamber Italian	A Fateful Reflection of a Moose And a Husband who r
2	384	Grosse Wonderful	A Epic Drama of a Cat And a Explorer who must Rede
3	8	Airport Pollock	A Epic Tale of a Moose And a Girl who must Confront
4	98	Bright Encounters	A Fateful Yarn of a Lumberjack And a Feminist who m
5	1	Academy Dinosaur	A Epic Drama of a Feminist And a Mad Scientist who
6	2	Ace Goldfinger	A Astounding Epistle of a Database Administrator And
7	3	Adaptation Holes	A Astounding Reflection of a Lumberjack And a Car w

- Film replacement cost is less than 14.99

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



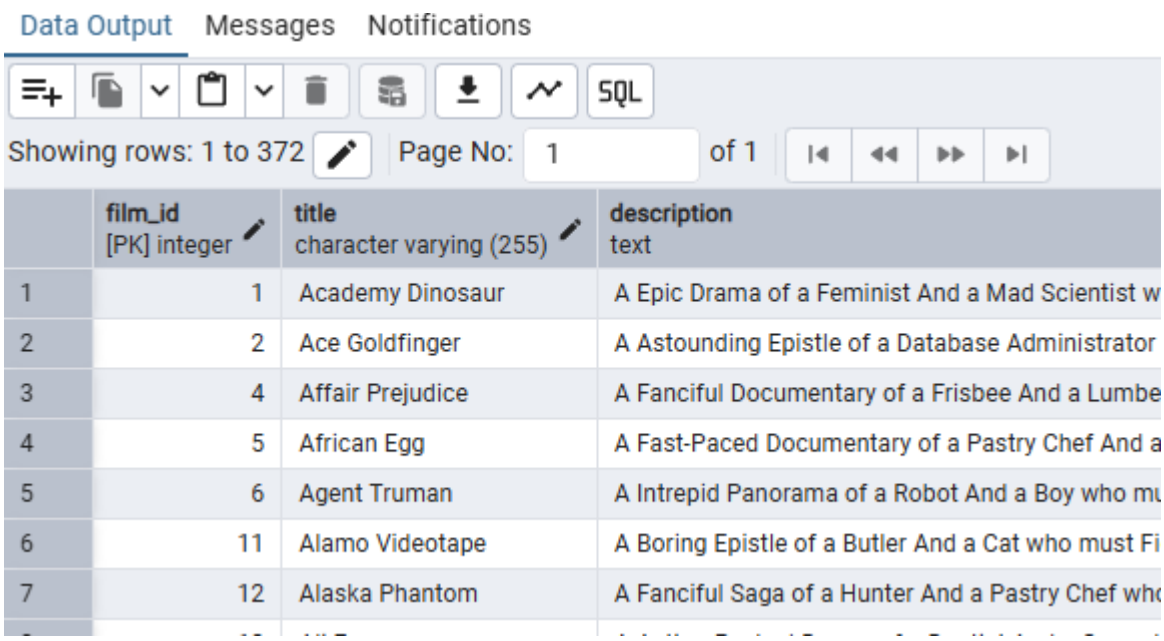
Data Output | Messages | Notifications

Showing rows: 1 to 249 | Page No: 1 of 1

	film_id [PK] integer	title character varying (255)	description text
1	98	Bright Encounters	A Fateful Yarn of a Lumberjack And a Feminist who mu
2	2	Ace Goldfinger	A Astounding Epistle of a Database Administrator And
3	15	Alien Center	A Brilliant Drama of a Cat And a Mad Scientist who mu
4	22	Amistad Midsummer	A Emotional Character Study of a Dentist And a Crocod
5	23	Anaconda Confessions	A Lacklusture Display of a Dentist And a Dentist who m
6	27	Anonymous Human	A Amazing Reflection of a Database Administrator And
7	29	Antitrust Tomatoes	A Fateful Yarn of a Womanizer And a Feminist who mu
8	32	Apocalypse Flamingos	A Astounding Story of a Dog And a Squirrel who must D
9	36	Argonauts Town	A Emotional Epistle of a Forensic Psychologist And a R

- Film rating is either PG or G

```
SELECT film_id,
    title,
    description
FROM film
WHERE rating = 'PG' OR rating ='G'
```

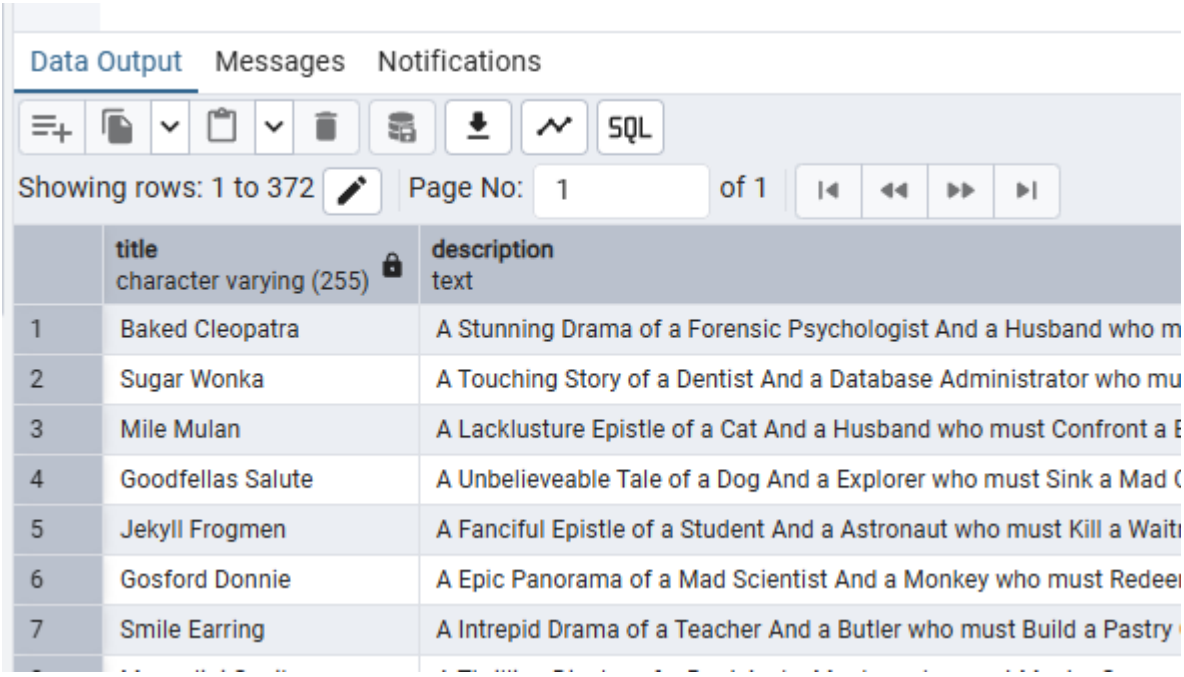


	film_id [PK] integer	title character varying (255)	description text
1	1	Academy Dinosaur	A Epic Drama of a Feminist And a Mad Scientist w
2	2	Ace Goldfinger	A Astounding Epistle of a Database Administrator
3	4	Affair Prejudice	A Fanciful Documentary of a Frisbee And a Lumbe
4	5	African Egg	A Fast-Paced Documentary of a Pastry Chef And a
5	6	Agent Truman	A Intrepid Panorama of a Robot And a Boy who mu
6	11	Alamo Videotape	A Boring Epistle of a Butler And a Cat who must Fi
7	12	Alaska Phantom	A Fanciful Saga of a Hunter And a Pastry Chef who

2. Merge your CSV files into one Excel file (.xlsx) and create a separate sheet for each query, labeled 1a, 1b, 1c, etc. You'll use this file for all further questions in this task.

3. The query you wrote in step 1e returned a list of movies with a film rating of either PG or G. The inventory team has asked for more information about this list: count of the movies, average rental rate, and maximum and minimum rental durations. Run the query and transfer the code you used and your results onto a new sheet in your Excel file. 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”
    - “minimum rental duration”

```
SELECT title,
    description,
    COUNT(film_id) AS count_of_movies,
    AVG(rental_rate) AS average_movie_rental_rate,
    MAX(rental_duration) AS maximum_rental_duration,
    MIN(rental_duration) AS minimum_rental_duration
FROM film
WHERE rating IN ('PG', 'G')
GROUP BY title, description;
```

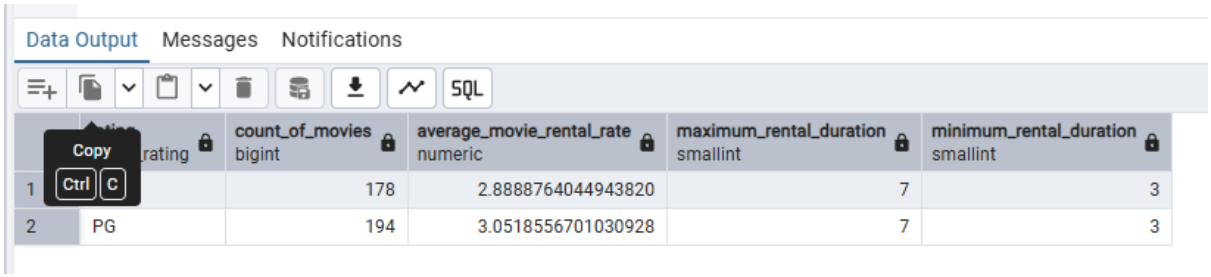


	title character varying (255)	description text
1	Baked Cleopatra	A Stunning Drama of a Forensic Psychologist And a Husband who m
2	Sugar Wonka	A Touching Story of a Dentist And a Database Administrator who mu
3	Mile Mulan	A Lacklusture Epistle of a Cat And a Husband who must Confront a E
4	Goodfellas Salute	A Unbelieveable Tale of a Dog And a Explorer who must Sink a Mad (
5	Jekyll Frogmen	A Fanciful Epistle of a Student And a Astronaut who must Kill a Waitı
6	Gosford Donnie	A Epic Panorama of a Mad Scientist And a Monkey who must Redeer
7	Smile Earring	A Intrepid Drama of a Teacher And a Butler who must Build a Pastry

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

```
SELECT rating,
    COUNT(film_id) AS count_of_movies,
    AVG(rental_rate) AS average_movie_rental_rate,
    MAX(rental_duration) AS maximum_rental_duration,
    MIN(rental_duration) AS minimum_rental_duration
FROM film
WHERE rating IN ('PG', 'G')
GROUP BY rating;
```

But that only gives this, I think they want to see all the movies still



	rating	count_of_movies bigint	average_movie_rental_rate numeric	maximum_rental_duration smallint	minimum_rental_duration smallint
1		178	2.8888764044943820	7	3
2	PG	194	3.0518556701030928	7	3

So that needs this:

```
SELECT title,
    description,
    rating,
    COUNT(film_id) AS count_of_movies,
    AVG(rental_rate) AS average_movie_rental_rate,
    MAX(rental_duration) AS maximum_rental_duration,
    MIN(rental_duration) AS minimum_rental_duration
FROM film
WHERE rating IN ('PG', 'G')
GROUP BY title, description, rating
ORDER BY rating = 'PG', rating;
```

5. Save your answers in the Excel file you created in step 2 and upload it here for your tutor to review.

Rubric

Refer to the categories below to see how to meet the requirements of the approved stage