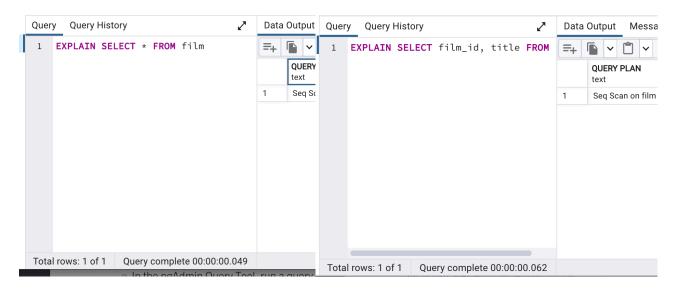
# **Answers Ex 3.4**

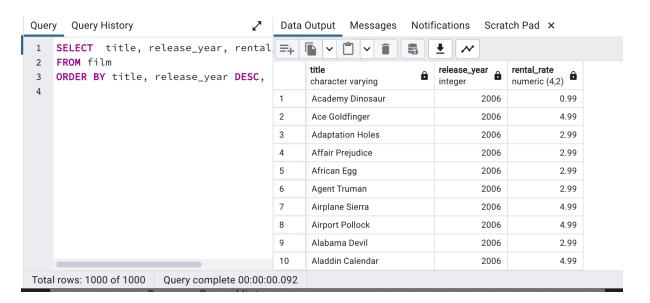
## Database querying in SQL

- 1: While the SELECT film\_id, title query is specific to our needs, it does take more time. (See images below.)



The only way I can think of optimising is to create a table with only these two values in it.

- 2: See below



#### E. Christian Cotterman

### - 3: Grouping Data

| Query History  | Data | Output Messa       | ages Notifications | Scratch Pac     | x t             |
|--|------|--------------------|--------------------|-----------------|-----------------|
| <pre>1 SELECT rating, AVG(rental_rate), 2 MIN(rental_duration), 3 MAX(rental_duration) 4 FROM film 5 GROUP BY rating</pre> |      |                    |                    |                 |                 |
|  |      | rating mpaa_rating | avg<br>numeric     | min<br>smallint | max<br>smallint |
|  | 1    | PG                 | 3.0518556701030928 | 3               | 7               |
|  | 2    | R                  | 2.9387179487179487 | 3               | 7               |
|  | 3    | NC-17              | 2.9709523809523810 | 3               | 7               |
|  | 4    | PG-13              | 3.0348430493273543 | 3               | 7               |
|  | 5    | G                  | 2.8888764044943820 | 3               | 7               |

#### - 4: Database Migration

We would need to follow ETL protocols. Extract from the Android app, Transform the data into the proper format for the database, Load the data into the new/correct database.

The Android team or Data Engineer for Android should be in charge of the task. It would also be good to have the Android DE and the Rockbuster DE sit down and agree on the standards/guidelines for the data going forward to not have any confusion etc. Always have a plan!

Analysing the data before migration can lead to bad processes. One team may prioritise certain data over another, which may not be accurate for other teams involved. Naming protocols etc should all be agreed upon and set down in a 'Style Guide' for everyone to follow. Otherwise you could have 'mpaa-ratings', 'film\_ratings' and 'age\_ratings' all showing the same information. Bloat is to be avoided at all costs.