

# Database Querying in SQL

## STEP 1

rockbuster/postgres@PostgreSQL 10 (x86) ▾									
Query Editor   Query History									
<pre>1 SELECT * 2 FROM film</pre>									
Data Output   Explain   Messages   Notifications									
film_id	title	description	release_year	language_id	rental_duration	rental_rate	length	rental_rate	rental_rate
[PK] integer	character varying (255)	text	integer	smallint	smallint	numeric (4,2)	smallint	smallint	smallint
1	133	Chamber Italian	A Fateful Reflection of a Moose And a Husband who must Overcome a Monkey in Nigeria	2006	1	7	4.99	117	
2	384	Grosse Wonderful	A Epic Drama of a Cat And a Explorer who must Redeem a Moose in Australia	2006	1	5	4.99	49	
3	8	Airport Pollock	A Epic Tale of a Moose And a Girl who must Confront a Monkey in Ancient India	2006	1	6	4.99	54	
4	98	Bright Encounters	A Fateful Yarn of a Lumberjack And a Feminist who must Conquer a Student in A Jet Boat	2006	1	4	4.99	73	
5	1	Academy Dinosaur	A Epic Drama of a Feminist And a Mad Scientist who must Battle a Teacher in The Canadian Rockies	2006	1	6	0.99	86	
6	2	Ace Goldfinger	A Astounding Epistle of a Database Administrator And a Explorer who must Find a Car in Ancient China	2006	1	3	4.99	48	
7	3	Adaptation Holes	A Astounding Reflection of a Lumberjack And a Car who must Sink a Lumberjack in A Baloon Factory	2006	1	7	2.99	50	
8	4	Affair Prejudice	A Fanciful Documentary of a Fritsbee And a Lumberjack who must Chase a Monkey in A Shark Tank	2006	1	5	2.99	117	
9	5	African Egg	A Fast-Paced Documentary of a Pastry Chef And a Dentist who must Pursue a Forensic Psychologist in The Gulf of Mexico	2006	1	6	2.99	130	
10	6	Agent Truman	A Intrepid Panorama of a Robot And a Boy who must Escape a Sumo Wrestler in Ancient China	2006	1	3	2.99	169	
11	7	Airplane Sierra	A Touching Saga of a Hunter And a Butler who must Discover a Butler in A Jet Boat	2006	1	6	4.99	62	
12	9	Alabama Devil	A Thoughtful Panorama of a Database Administrator And a Mad Scientist who must Outgun a Mad Scientist in A Jet Boat	2006	1	3	2.99	114	
13	10	Aladdin Calendar	A Action-Packed Tale of a Man And a Lumberjack who must Reach a Feminist in Ancient China	2006	1	6	4.99	63	
14	11	Alamo Videotape	A Boring Epistle of a Butler And a Cat who must Fight a Pastry Chef in A MySQL Convention	2006	1	6	0.99	126	

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Query Editor   Query History

```

1  SELECT film_id, title
2  FROM film

```

Data Output   Explain   Messages   Notifications

	film_id [PK] integer	title character varying (255)
1	133	Chamber Italian
2	384	Grosse Wonderful
3	8	Airport Pollock
4	98	Bright Encounters
5	1	Academy Dinosaur
6	2	Ace Goldfinger
7	3	Adaptation Holes
8	4	Affair Prejudice
9	5	African Egg
10	6	Agent Truman
11	7	Airplane Sierra
12	9	Alabama Devil
13	10	Aladdin Calendar
14	11	Alamo Videotape
15	12	Alvin Dinosaur

Data Output   Explain   Messages   Notifications

	QUERY PLAN text
1	Seq Scan on film (cost=0.00..64.00 rows=1000 width=384)

Data Output		Explain	Messages	Notifications
<div> <div></div> <div>QUERY PLAN</div> <div>text</div> </div>				
1	Seq Scan on film (cost=0.00..64.00 rows=1000 width=19)			

It could be seen from the difference in the cost of the original and the query that the width of the original is 384 and the revised is 19. Meaning you could view all the information from the revised column.




## STEP 2




```
1 SELECT title, release_year, rental_rate
2 FROM film
3 ORDER BY rental_rate ASC
```




Data Output Explain Messages Notifications

	<b>title</b> character varying (255)	<b>release_year</b> integer	<b>rental_rate</b> numeric (4,2)
1	Frost Head	2006	0.99
2	Odds Boogie	2006	0.99
3	Theory Mermaid	2006	0.99
4	Fury Murder	2006	0.99
5	Gables Metropolis	2006	0.99
6	Novocaine Flight	2006	0.99
7	Notting Speakeasy	2006	0.99
8	Gandhi Kwai	2006	0.99
9	Alaska Phantom	2006	0.99
10	Notorious Reunion	2006	0.99
11	Bull Shawshank	2006	0.99
12	Gathering Calendar	2006	0.99
13	Argonauts Town	2006	0.99
14	None Spiking	2006	0.99
15	Obnoxious Elf	2006	0.99

### STEP 3

	Data Output	Explain	Messages	Notifications
	 rating mpaa_rating 	avg numeric 		
1	R	2.9387179487179487		
2	NC-17	2.9709523809523810		
3	G	2.8888764044943820		
4	PG	3.0518556701030928		
5	PG-13	3.0348430493273543		

	Data Output	Explain	Messages	Notifications
	 rating mpaa_rating 	max smallint 		
1	R	7		
2	NC-17	7		
3	G	7		
4	PG	7		
5	PG-13	7		

	Data Output	Explain	Messages	Notifications
	 rating mpaa_rating 	min smallint 		
1	R	3		
2	NC-17	3		
3	G	3		
4	PG	3		
5	PG-13	3		

### STEP 4

- Firstly, Data needs to be collected from multiple data sources.
- Secondly, the extracted data is converted into another format.
- Lastly, the transformed data is inserted or loaded into a new database.

This task is performed by a Data Engineer.

- Most at times, you can see errors before Data is loaded to a warehouse.
- Also when Data is inaccurate , it affects the performance of the workout put from the Data warehouse.