

Answers 3.4

Step 1

Query Query History

1 **EXPLAIN**
2 **SELECT** *
3 **FROM** film

Data output Messages Notifications

QUERY PLAN
text

1 Seq Scan on film (cost=0.00..64.00 rows=1000 width=...

Query Query History

1 **EXPLAIN**
2 **SELECT** film_id,
3 title
4 **FROM** film

Data output Messages Notifications

QUERY PLAN
text

1 Seq Scan on film (cost=0.00..64.00 rows=1000 width=19)

Both queries cost 0 and have a score of 64, If this database was larger the benefits of having a more refined query. Which would make it better and easier for you and your company.

Step 2

Query Query History

1 **SELECT** title, release_year, rental_rate
2 **FROM** film
3 **ORDER BY** title, release_year, rental_rate **DESC**;

Data output Messages Notifications

	title character varying (255)	release_year integer	rental_rate numeric (4,2)
1	Academy Dinosaur	2006	0.99
2	Ace Goldfinger	2006	4.99
3	Adaptation Holes	2006	2.99
4	Affair Prejudice	2006	2.99
5	African Egg	2006	2.99
6	Agent Truman	2006	2.99
7	Airplane Sierra	2006	4.99
8	Airport Pollock	2006	4.99
9	Alabama Devil	2006	2.99
10	Aladdin Calendar	2006	4.99
11	Alamo Videotape	2006	0.99
12	Alaska Phantom	2006	0.99
13	Alli Forever	2006	4.99

Total rows: 1000 of 1000 Query complete 00:00:00.102

CSV File:

[data- decending order.xlsx](#)

Step 3

Query Query History

```
1 SELECT
2 AVG (rental_rate) AS "Average Rental Rate",
3 rating AS "Rating"
4 From film
5 GROUP BY rating
6 ORDER BY rating;
```

Data output Messages Notifications

	Average Rental Rate numeric	Rating mpaa_rating
1	2.888876404494382	G
2	3.0518556701030928	PG
3	3.034843049327354	PG-13
4	2.9387179487179487	R
5	2.970952380952381	NC-17

Query Query History

```
1 SELECT
2 MIN (rental_duration) AS "Minimum Rental Durat
3 MAX (rental_duration) AS "Maximum Rental Durat
4 rating AS "Rating"
5 From film
6 GROUP BY rating
7 ORDER BY rating;
```

Data output Messages Notifications

	Minimum Rental Duration smallint	Maximum Rental Duration smallint	Rating mpaa_rating
1	3	7	G
2	3	7	PG
3	3	7	PG-13
4	3	7	R
5	3	7	NC-17

Step 4

The process of migrating data is called ETL (Extract, Transform, and Load). Typically, the data engineer would source the data, transform it into a compatible format and perform any aggregations and then load them into the database.

If you were to analyze the data before this process, you would get incomplete, missing, and inaccurate information. It would be like analyzing raw data in excel without cleaning it up, which could lead to human error or inaccurate information.