



[Return to "Programming for Data Science with Python" in the classroom](#)

Investigate a Relational Database

REVIEW

CODE REVIEW

HISTORY

Requires Changes

2 SPECIFICATIONS REQUIRE CHANGES

Great job, a strong first submission indeed. Just few more changes and you are good to go. Take the suggestions positively and implement them. I am sure next submission would be the last one. Looking forward for the next submission.

Keep Learning :)

Queries

All SQL queries run without errors and produce the intended results.

Good job writing error-free SQL queries! Nice use of GROUP BY and AGGREGATION clauses in your queries.

Each SQL query needs to include one or more explicit JOINS. The JOIN or JOINS should be necessary to the query.

If a question does not require a JOIN please change the question to be one that does.

All of your queries have JOINS and you. Try to see if you can ask questions that require you to use LEFT or RIGHT JOINS.

Each SQL query needs to include one or more aggregations. This could be a COUNT, AVG, SUM, or other aggregation.

Really nice job using an aggregation in each of your SQL queries! You also mixed them up nicely by using SUM, NTILE and COUNT in different queries. Your visualizations also reflected these aggregations very well!

At least 2 of the 4 SQL queries need to include either a subquery OR a CTE.

Amazing job with the CTEs! This is usually the more challenging part of SQL and you have demonstrated good mastery of the concept.

At least 1 of the 4 queries should use a Window Function.

Great job using a Window Function in one of your queries!

The SQL queries are well formatted and use aliases.

Submitted queries are correct but readability can be improved by formatting them. Please follow the lessons. I am giving an example of query #1, how it would look like. Please follow the guidelines.

```
WITH t1
  AS (SELECT f.title AS film_title,
            c.NAME AS category_name
      FROM category c
      JOIN film_category fc
        ON c.category_id = fc.category_id
      JOIN film f
        ON fc.film_id = f.film_id
     WHERE c.NAME IN ( 'Animation', 'Children', 'Classics', 'Comedy',
                      'Family', 'Music' )),
  t2
  AS (SELECT f.title AS film_title,
            Count(rental_id) AS rental_count
      FROM film f
```

```
        JOIN inventory i
        ON f.film_id = i.film_id
        JOIN rental r
        ON i.inventory_id = r.inventory_id
    GROUP BY 1)

SELECT t1.film_title,
       t1.category_name,
       t2.rental_count
FROM   t1
       JOIN t2
        ON t1.film_title = t2.film_title
ORDER BY category_name,
         film_title
```

Presentation

Each slide should have a question and an appropriate visualization descriptions to address the question. The slides should be free of significant factual, spelling and grammatical mistakes.

Great job at providing individual visualizations on each slide! You have provided an appropriate title for each slide and there are no significant factual, spelling and grammar mistakes.

All visualizations should make logical sense and provide accurate analysis based on their query results.

Each of your slides and visualizations provide useful information and accurately reflect what your query results showed.

1. All visualizations include a title and axis labels, have a legend where applicable, and are easily understood.
2. Every visualization should have:
 - chart title
 - x axis title
 - x axis label
 - y axis title
 - y axis labels

All the visualizations are apt. There is just one thing missing in chart 3, x-axis title.

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