UDACITY

Return to Classroom

Explore Weather Trends

REVIEW

HISTORY

Meets Specifications

Hi
This is a good report that demonstrates you know how to calculate the moving average and you depict your result with a clear chart. As you go forward with your program please feel free to post a question in the knowledge forum

Analysis

The SQL query used to extract the data is included.
The query runs without error and pulls the intended data.

SQL query

Great work here in extracting the data for the local city and comparing that to global temperatures.
Your queries were appropriate!
If you're interested in bolstering your SQL mastery with more questions and puzzles, try these websites
https://www.hackerrank.com/domains/sql/select
https://lagunita.stanford.edu/courses/DB/SQL/SelfPaced/courseware/ch-sql/seq-vid-introduction_to_sql/
You'll get a chance to practice increasingly difficult questions and learn how to interact with multiple tables at once. As an example, here is another way to get the data that you want for both local and Global while excluding the empty years in one table output!

```
SELECT city_data.year,
city_data.avg_temp as city_temp,
```

```
global_data.avg_temp as global_temp
FROM city_data, global_data
WHERE city_data.year = global_data.year
AND NOT city_data.avg_temp IS NULL
AND city_data.city = 'Lagos'
```

Moving averages are calculated to be used in the line chart.

Moving Average

Well Done for calculating the moving average! There is no golden rule for the duration of the moving average. The tradeoff is between more information (short duration moving average) and how much noise we would like to remove (longer duration moving average). In this case, we would like to choose a moving average that will be long enough to remove the noise but shorter enough so we will be able to see similarities but also differences between the local and global average.

A line chart is included in the submission.
The chart and its axes have titles, and there's a clear legend (if applicable).

Chart Clarity

The line chart included in your submission looks great! The chart contains a descriptive title that explains the graph.

The student includes four observations about their provided data visualization.
The four observations are accurate.

Observations

Great work in looking at the output of your graph and making observations from them. You can find more details about other analysis and research at this topic here https://en.wikipedia.org/wiki/Global_warming

Only for Project Reviewers (No student work needed)

This rubric will be ungraded. If the student has used a jupyter notebook, the reviewer will be providing a code review.

This rubric will be ungraded. The reviewer will brief the students about the concepts learned in this section of the Nanodegree program.

Examining the chart we can see that the global temperature trend is correlated with the city temperature trend. This correlation is more obvious when the moving average is longer, while the correlation decreases when the moving average is shorter. This type of correlation that depends on the moving average length indicates that the trend is the long-term trend.

It will be interesting to search the data for cities that do not correlate with the global trend. Where are these cities located, can you think of a reason why this is the case?

This type of analysis allows us to examine long-term trends and filter out short term noise.

This rubric is ungraded. If the learner has asked a question pertaining to the implementation of the project, the reviewer will provide an answer along with links to any helpful resources.

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