

DATA ANALYST NANODEGREE - Udacity  
PROJECT: EXPLORE WEATHER TRENDS



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## Summary

In this project, I will analyze the global and local weather data and compare the weather trends of overall global temperature to Seattle.

### (i) Extracting data from the database

SQL commands were used to extract the data.

The screenshot displays a web application interface for a project titled "Project: Explore Weather Trends". The main section is titled "Accessing Data With SQL" and includes a "SEND FEEDBACK" link. On the left, a sidebar lists project steps, with "3. Accessing Data With SQL" highlighted. The main content area shows an "Input" section with a schema table and a SQL query editor. The query is: `select * from city_list where country='United States'`. Below the query, a green "Success!" message and an "EVALUATE" button are visible. The "Output" section shows 52 results, with a "Download CSV" link. The results are displayed in a table with two columns: "city" and "country".

city	country
Albuquerque	United States
Alexandria	United States
Arlington	United States
Atlanta	United States
Austin	United States
Baltimore	United States
Birmingham	United States
Boston	United States

(ii) Extracting Seattle data

Project:  
Explore Weather Trends

SEARCH

RESOURCES

CONCEPTS

1. Your First Project

2. Project Instructions

3. Accessing Data With SQL

4. Moving Averages

5. BONUS: Project FAQs

6. Project: Explore Weather Trends

Mentor Help  
Ask a mentor on our Q&A platform

Accessing Data With SQL

SEND FEEDBACK

Input

SCHEMA

city\_data

city\_list

global\_data

1 `select year, avg_temp from city_data where city='Seattle'`

Success!

EVALUATE

Output 186 results

Download CSV

year	avg_temp
1828	7.13
1829	6.80
1830	
1831	
1832	3.52
1833	7.48
1834	7.10
1835	5.58

Menu Expand

(iii) Extracting the average global temperature

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Accessing Data With SQL

SEND FEEDBACK

Input

SCHEMA

city\_data

city\_list

global\_data

1 `select * from global_data`

Success!

EVALUATE

Output 266 results

Download CSV

year	avg_temp
1750	8.72
1751	7.98
1752	5.78
1753	8.39
1754	8.47
1755	8.36
1756	8.85
1757	9.02

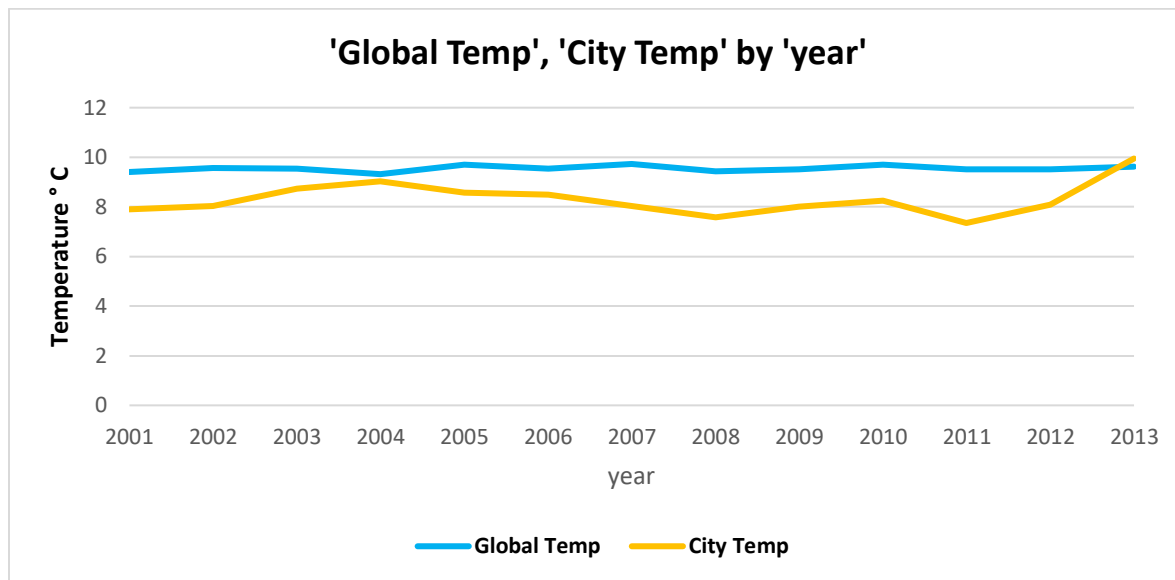
Menu Expand

## Data Analysis:

The obtained data was downloaded as CSV files. And the data analysis was performed in the MS excel. 10 year Moving Average was calculated in the Excel. I used a formula ( $=\text{AVERAGE}(A2:A11)$ ) to get the MA of 10 years. The global temperature and city temperature data from 2001 to 2013 was considered.

### Line Chart:

A line chart was created with excel that compares the global temperatures with Seattle temperature.



## Observations:

From the line chart we can interpret that:

1. From 2001 to 2012, Seattle's city temperature is less than the global temperature. It is not consistent. In 2013 the city temperature was raised from 8 to 9.9 which is more than the global temperature.
2. Seattle's temperature is rising over time. From the above line chart, we can observe that the temperature was fluctuating. The temperature was raised from 8.7 to 9 in 2004. The temperature was less during 2011 which is 7.3.
3. When compared to Seattle city's temperature the global temperature is less fluctuating. The minimum temperature observed was 9.32 in 2004 and the maximum temperature observed was 9.73 in 2007.
4. Overall trend in the graph looks like the world is getting hotter.
5. From the graph, the global temperature is more consistent when compared to Seattle city temperature.