

**Explore Weather Trends**  
**First Data Analysis Nanodegree Project**

# Content

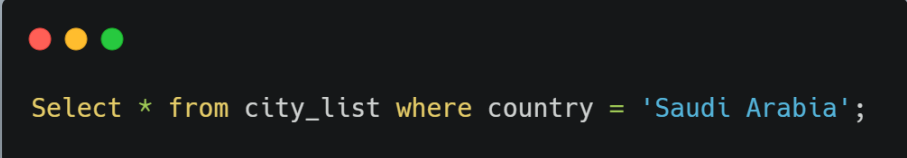
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## Exploring and extracting data

First step was exploring the dataset using SQL queries as shown below

- Here I was searching to the nearest city:

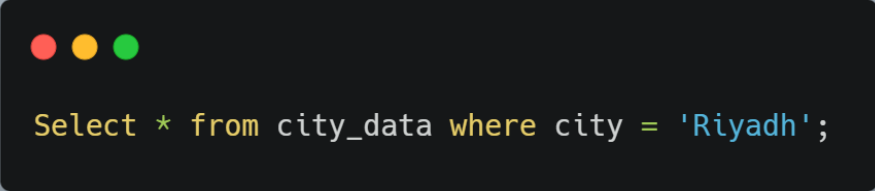
A terminal window with a dark background and three colored window control buttons (red, yellow, green) in the top-left corner. It contains a single line of SQL code.

```
Select * from city_list where country = 'Saudi Arabia';
```

I found out that the nearest city to me is Riyadh.

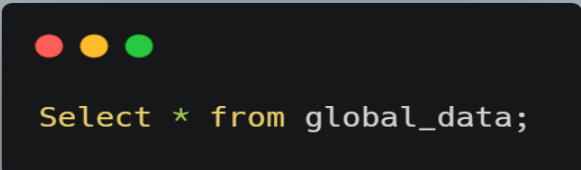
Also, I make sure they have same column name before extracting data for Riyadh from city\_data table using SQL

- Here I was extracting the details data for Riyadh:

A terminal window with a dark background and three colored window control buttons (red, yellow, green) in the top-left corner. It contains a single line of SQL code.

```
Select * from city_data where city = 'Riyadh';
```

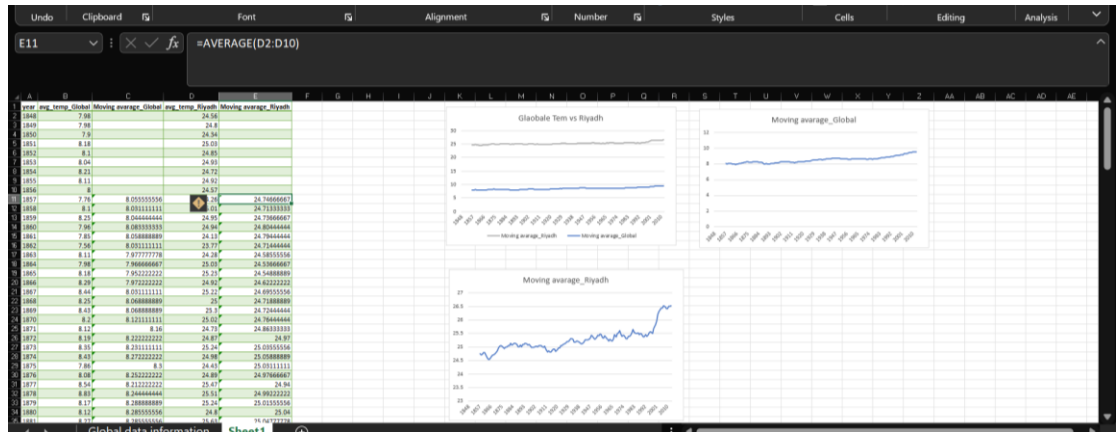
- Here I was extracting the details data for global:

A terminal window with a dark background and three colored window control buttons (red, yellow, green) in the top-left corner. It contains a single line of SQL code.

```
Select * from global_data;
```

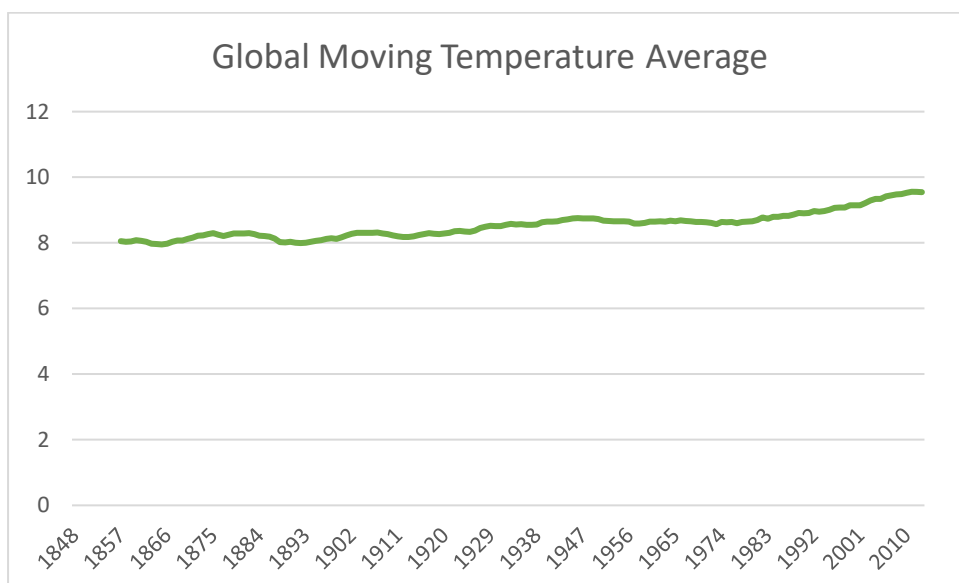
## Cleaning and preparing data

- Second step was cleaning the data by deleting the null value using Excel
- Third step was calculating the moving average for both Global & Riyadh using Average function on Excel ( for each 9 years )

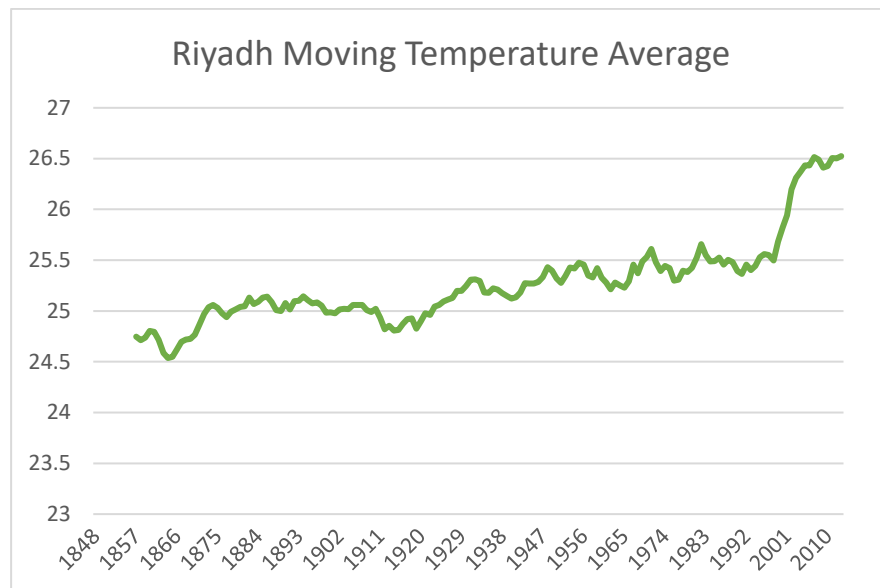


## Visualizing data

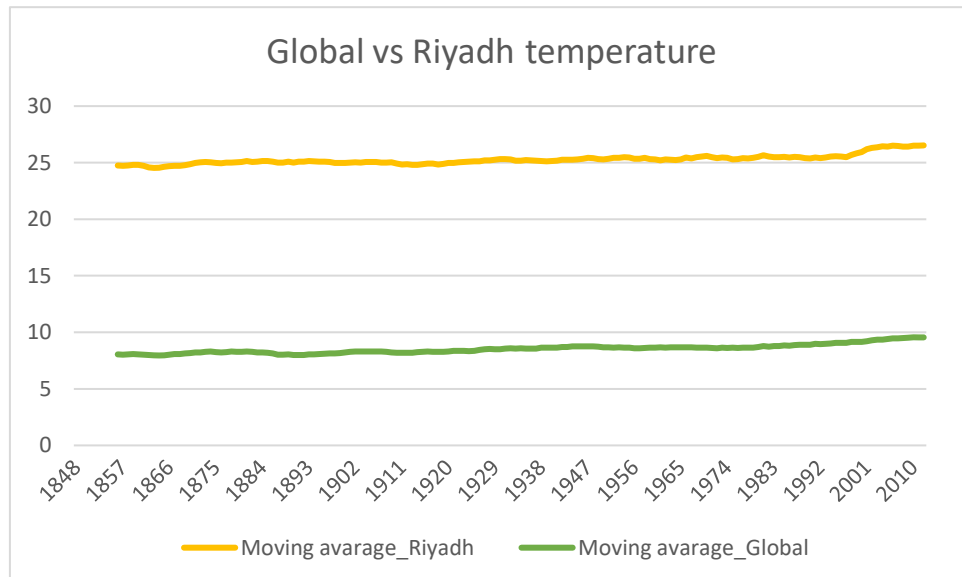
- Fourth step was creating a 3 Line chart
  - ✓ One for the Global to help easily comparing with Riyadh city.



- ✓ Second for Riyadh to help easily comparing it with Global.



- ✓ Third a comparison between the global and local temperature set across the years.



Charts above have an axis with an interval of every 9 years so they can be easily understood.

## Observations

- Over the past years, Riyadh's weather has been warmer than the global, and this trend is shown to continue.
- Since 1848, the average temperature in Riyadh has increased. It's started with 24.7.
- The average global temperature seems to be increasing over the period 1992-2010 which means the global weather tend to be wormer in the future.
- Global temperatures started at 8 and increased in a stable manner.