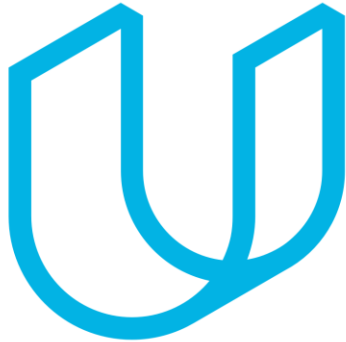
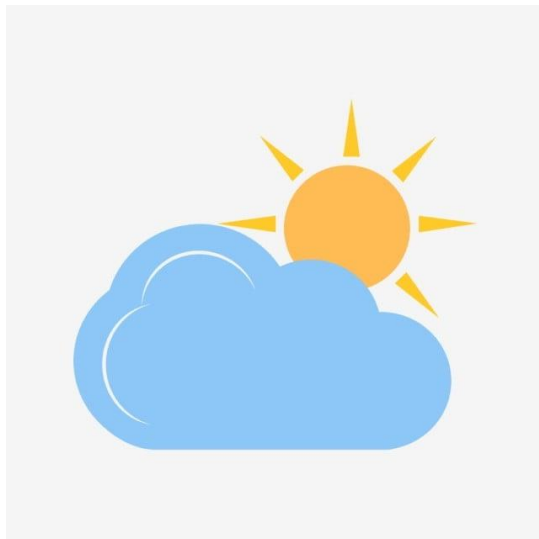


# Udacity Nano Degree



UDACITY

## Exploring Weather Trends



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## Overview

Exploring the weather trends for a Amsterdam city by comparing the global temperature and average temperature of the city from 1750 to 2013.

## Goals

To understand the weather trends for the city Amsterdam over the past decades.

## SQL Query to extract the data

1. To check which countries and cities are present in the data base.

```
SELECT * FROM city_list  
  
WHERE country = 'Netherland' AND city = 'Amsterdam'
```

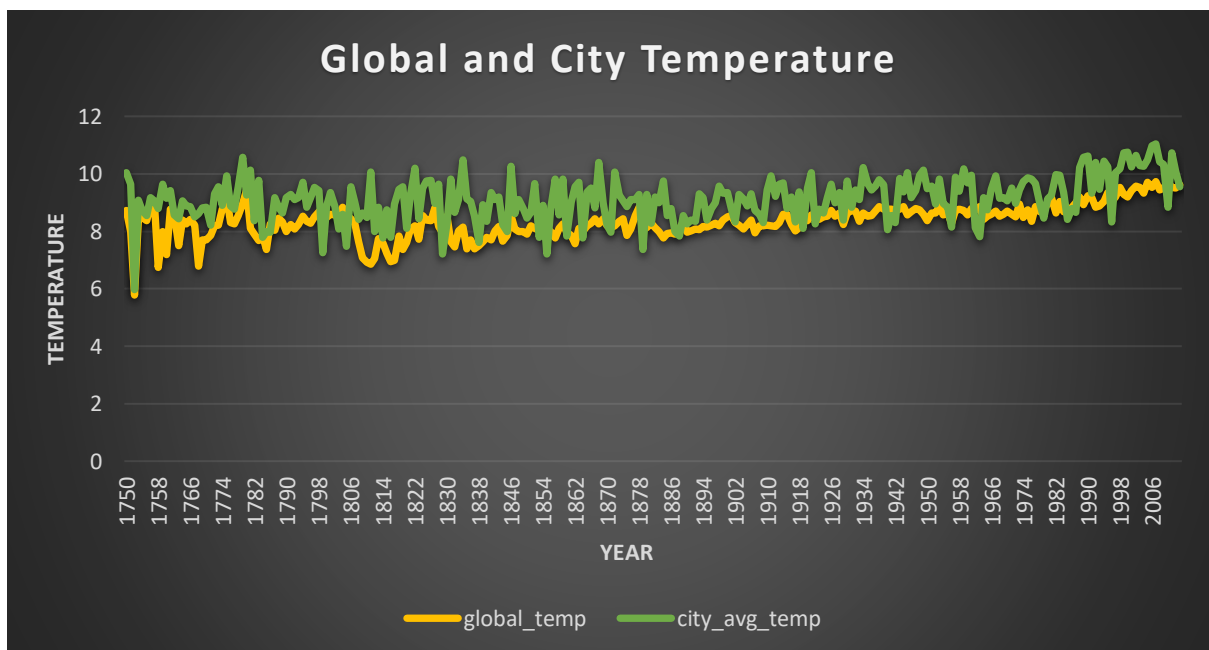
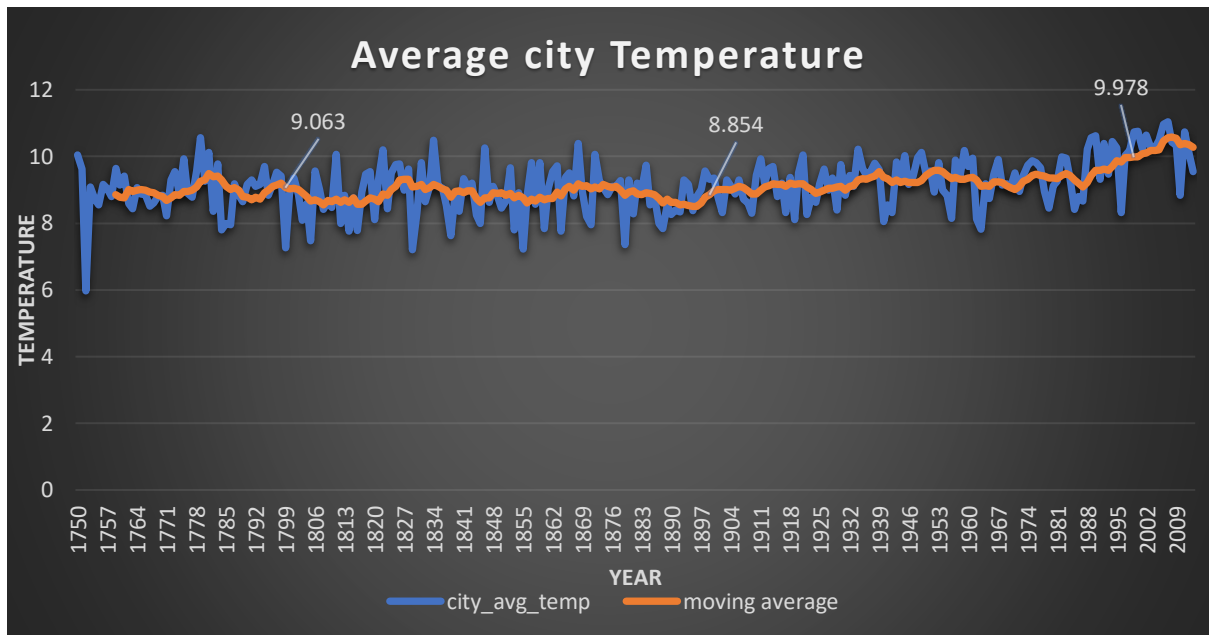
2. To extract the data from the data base by applying join to get data from two tables. And avg\_temp is the same in both the table, therefore the name of the table is change to global\_temp in global\_data and avg\_temp to city\_avg\_temp from city\_data.

```
SELECT global_data.year, global_data.avg_temp as global_temp, city_data.avg_temp  
as city_avg_temp  
  
FROM global_data  
  
JOIN city_data  
  
ON global_data.year = city_data.year  
  
WHERE city LIKE 'Amsterdam'
```

## Calculating moving average:

The moving average is calculated in Excel. For exploring the trends in weather 10 years of moving average is taken to get a smooth line chart. For this the command that has been used is =AVERAGE(B2:B11).

Figure:



## Observation

The global average temperature for 10 year moving average varies between 8.5 °C to 9.8 °C as it can be seen from the figure Average city Temperature.

Amsterdam average city temperature over the past years is in between 8 °C to 10.5 °C

My city is 2 to 3 degree hotter as compare to the global average temperature and its rising over time due to the climate change can be seen from figure global and city temperature.

When we compare the city temp to global temp over the time period. From the year 1750 we can see a stable temp between 8 to 9 degree but from the year 1870 we can see the change in temp and its rising.

From the figure we can see the overall trend, is temp rising and we take a note that temp is fluctuating between 0.5 to 1 degree in terms of rising.

### **Conclusion**

There is enough evidence and we can conclude the Amsterdam city is getting hotter by 2 degree its not much, but by the end of 2030 we can see a huge deference in temperature