

# Explore Weather Trends Project

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### Summary

In this project, I analyzed local and global temperatures and compared the temperature trends in Mecca to the overall global temperature trends.

The following steps were taken to complete the project:

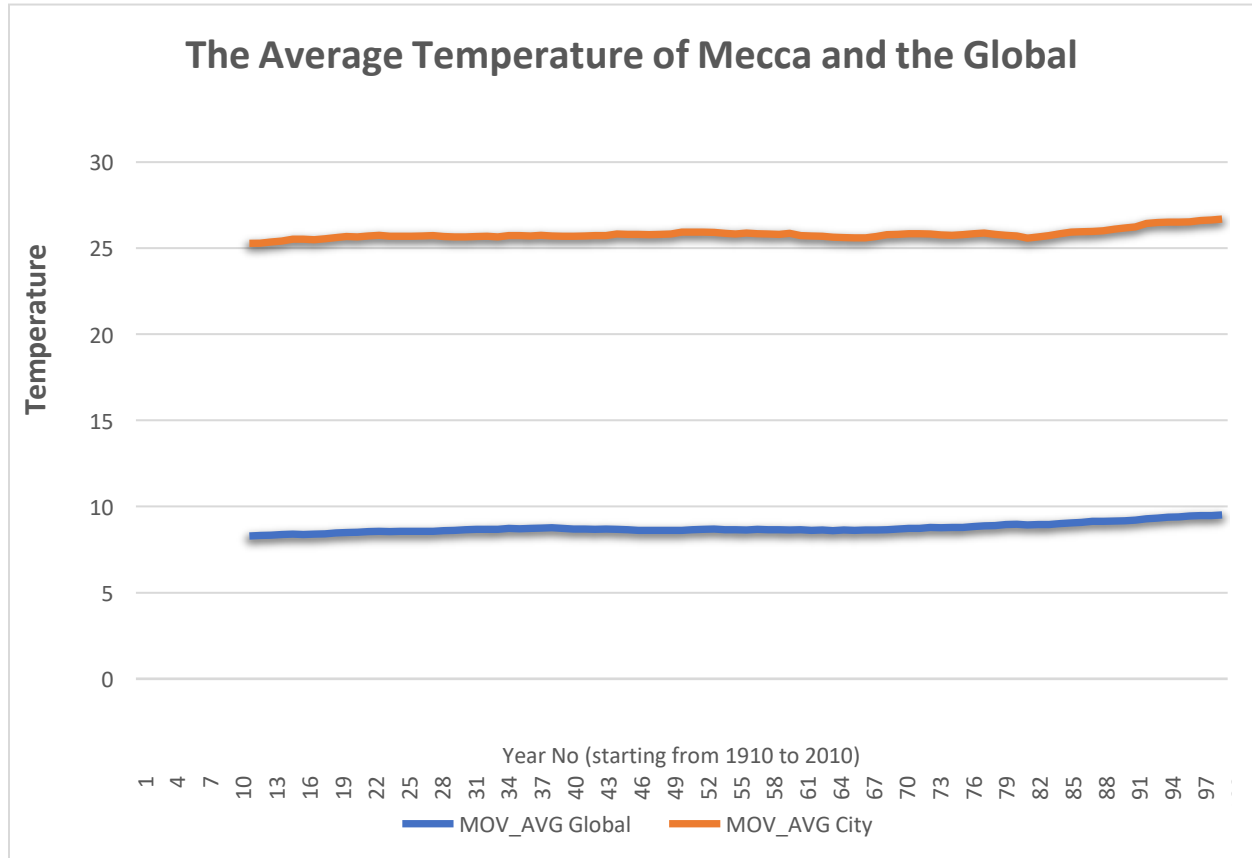
- 1- Extracting the data from the global\_data table and the city\_data table from Udacity's database using the following query:

```
SELECT c.year AS year, c.city city, c.avg_temp avg_temp FROM city_data c  
WHERE c.city = 'Mecca' AND c.avg_temp IS NOT NULL
```

```
ORDER BY year
```

```
SELECT * FROM global_data WHERE avg_temp IS NOT NULL ORDER BY year
```

- 2- I chose a period of 100 years from 1910 to 2010 to compare trends locally and globally by merging the two csv files using the command line prompt.
- 3- Calculation of the moving average for the first ten years until 2010 in Excel using the `=AVERAGE` function
- 4- I plotted the following line chart for the moving average in Mecca, the nearest city to where I live, and the global moving average.
- 5- I discovered four observations from the following graph on the next page.



## Observations

- 1- Mecca's average temperature is higher than the global average temperature.
- 2- Overall, Mecca's average temperature is almost triple the global average temperature.
- 3- Over the last ten years, the temperature in both Mecca and the rest of the world has risen; both are becoming hotter.
- 4- At year no.83 (1991), there was a decrease in Mecca, whereas the global temperature had an increase for the same year.