

Project 1: Explore Weather Trends

In this project, we will analyze local and global temperature data and compare the temperature trends where you live to overall global temperature trends.

Getting Started

These instructions will get you a copy of the project up and running on your local machine for development and testing purposes.

Prerequisites

- git
- ssh key
- python 3
- poetry
- pandoc

Installing

```
cd project_1_explore_weather_trends
```

```
poetry install
```

```
poetry run python explore_weather_trends.py --global_weather ./data/global_weather_trends.csv
```

```
pandoc README.md -s -o /tmp/exploration_of_weather_trends.pdf
```

Observations

The following observations show how the data in Figure 1 describes the differences in weather trends globally and locally in Dallas, TX (Figure 1)

Exploration:

- Dallas, TX is hotter than on average to the global average? Even though global weather trends have been measured since 1750 and Dallas weather trends since 1820, the differences have been consistent over time.
- The global average temperature between 1820 and 2013 was 8.47 degrees (°C). However, the local Dallas, TX average temperature between 1820 and 2013 was 18.13 degrees (°C). As a result, Dallas, TX is approximately 9.6 degrees (°C) warmer than the rest of the world.
- Furthermore, the global average temperature differences has incrementally increased 0.01 degrees (°C) every 10 years during the aforementioned time frame. On the other hand, the locally Dallas, TX average temperature differences increased 0.02 degrees (°C) every 10 years.

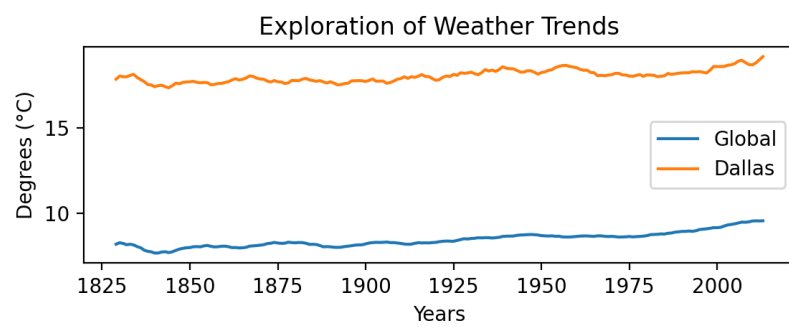


Figure 1: Figure 1 - Explorationi of Weather Trends

- The overall trending based on the data and charts show the world is getting hotter showing this trend been consistent over the last few centuries.

Authors

- **Larry Johnson**