

Project 1
Exploring Weather Trends
By Alona Sukretna

1. Extract data from the database using a few SQL query:

1) Choose right city from city_list

```
SELECT *
```

```
FROM city_list;
```

For easiest choice:

```
SELECT * FROM city_list
```

```
WHERE country = 'United States'
```

I choose closest big city: **Seattle**.

2) Extract data for Seattle

```
SELECT * FROM city_data
```

```
WHERE city = 'Seattle'
```

and export to Seattle.csv file

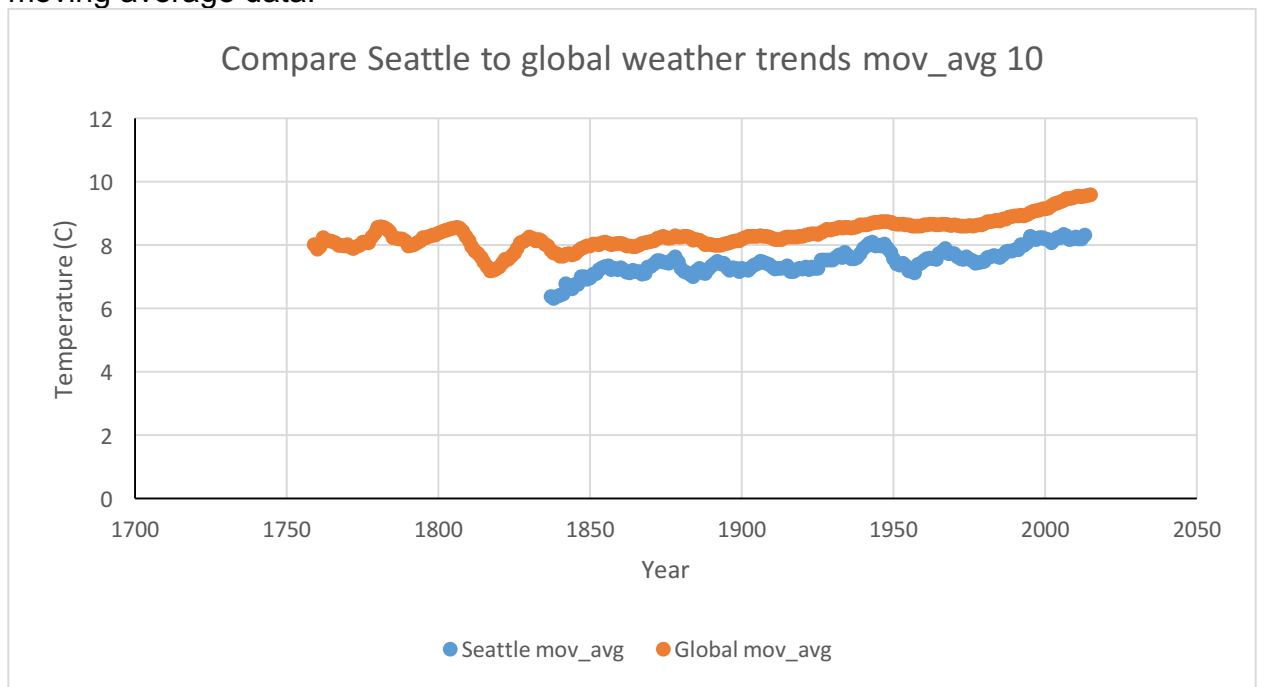
3) Extract global data

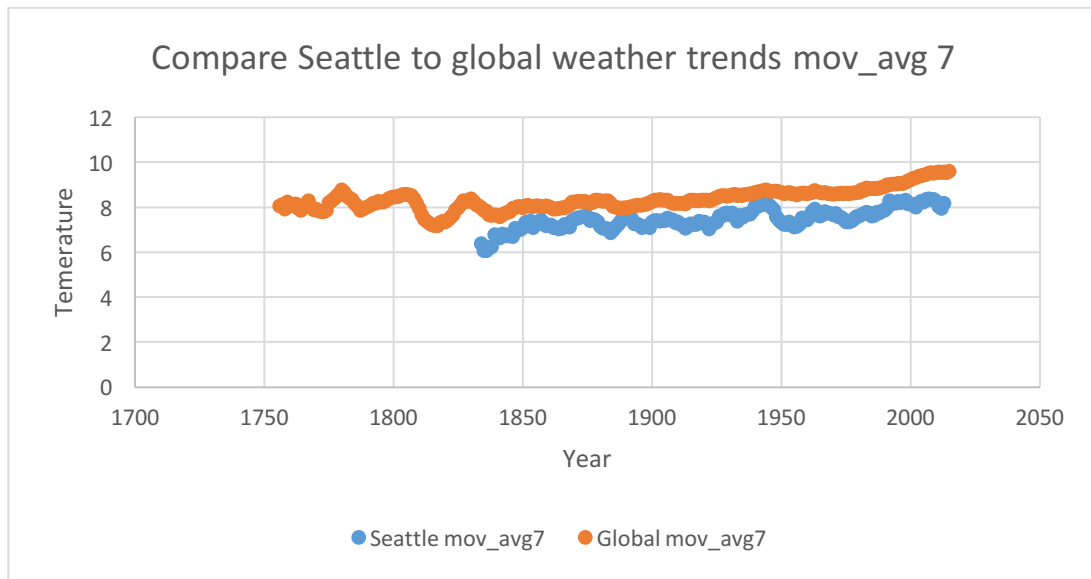
```
SELECT *
```

```
FROM global_data;
```

and export to global.csv file

2. Create Compare.xls file in Excel with data from Seattle.csv and global.csv. Add moving average columns for 10 years and 7 years, making trends more observable.
3. Create line chart to compare Seattle and global average temperatures, using moving average data.





4. Chart analysis.

Seattle average temperatures overall lower than global within 1-2 degrees (°C). We can see the common trend of global warming in Seattle because average temperatures become higher. But in Seattle was more fluctuations and trend is not so smooth like global in the last 185 years (1828-2013). Especially low temperatures compare to global was seen around 1830-40s, 1854-67, 1878-88 and 1955-57. Both data sets correlate not very good with correlation coefficient approximately 0.3.