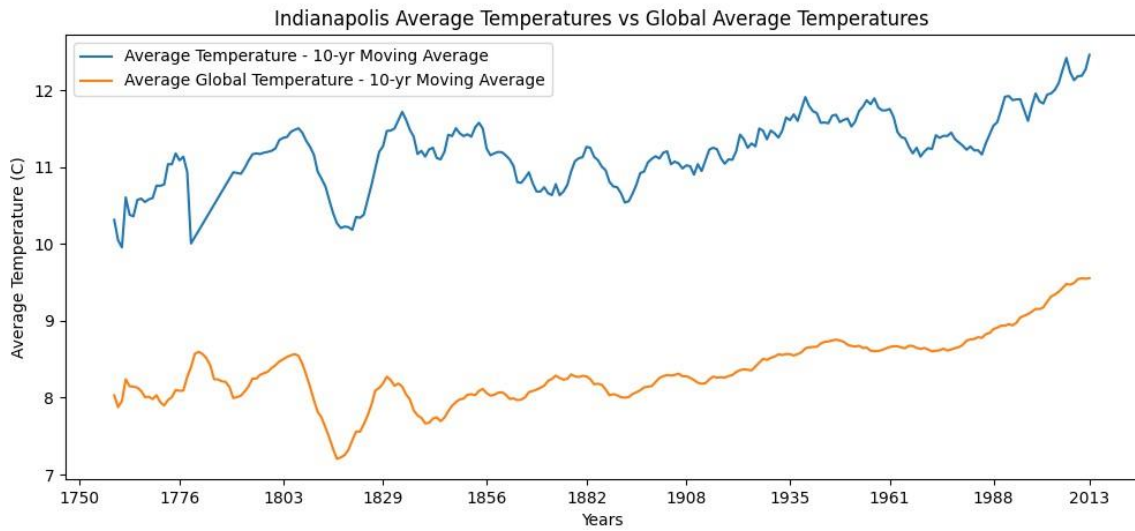
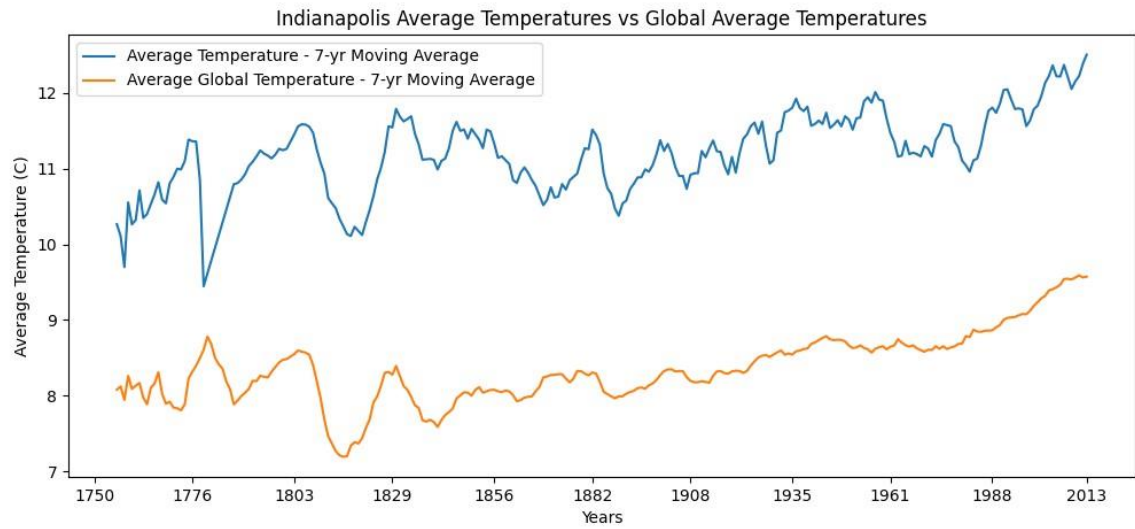
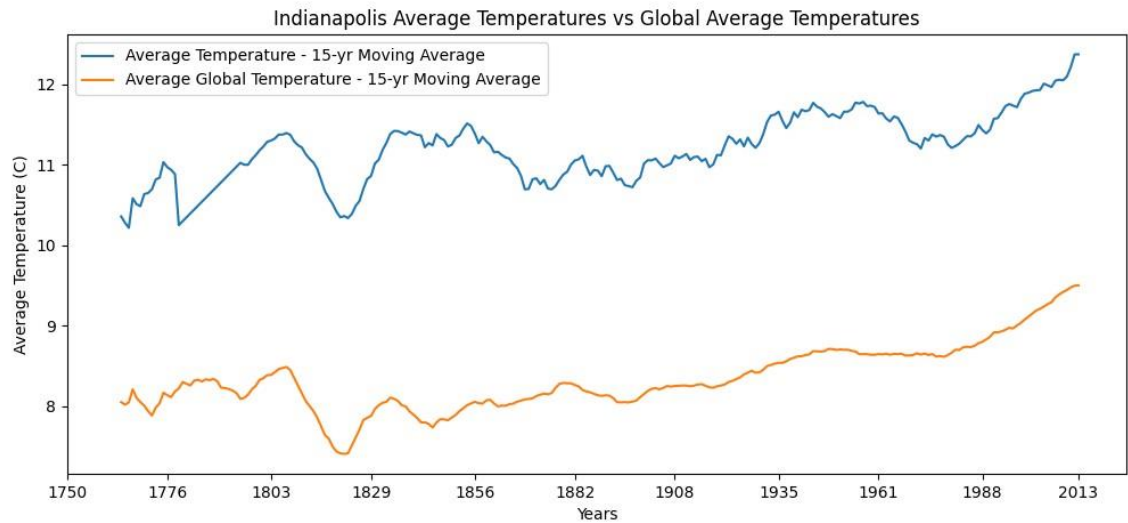


1. SQL Query:
 - a. `SELECT city_data.year, city, country, city_data.avg_temp, global_data.avg_temp as avg_global_temp`
 - b. `FROM city_data`
 - c. `JOIN global_data ON city_data.year = global_data.year`
2. What tools were used to prepare this data to be visualized?
 - a. Queried the tables using a join to gather all data at once
 - b. Wrote a program to take user input and process the data using Python
 - c. Moving averages were calculated using the pandas method, `rolling()`, in conjunction with `mean()`
 - d. I chose to give the user the option to select a 7-, 10-, or 15-yr moving average for comparing their city with the global rolling average of the same time frame
 - e. I wanted to provide the ability to see the smoother 15-yr and the more erratic 7-yr in a clean visual
 - f. There is also the option to compare all, but this causes the chart to be a little too “busy” to be useful

3. Graphs





4. Observations

- a. All moving averages in local temperatures trend nicely with global temperatures
- b. 15-yr moving average is the smoothest visualization for a high-level look
- c. 7-yr moving average is shows the micro-movements within the larger dataset for some cities
- d. 10-yr moving average provides the best picture when comparing trends because the 7yr can be too erratic while the 15-yr can mask the anomalies