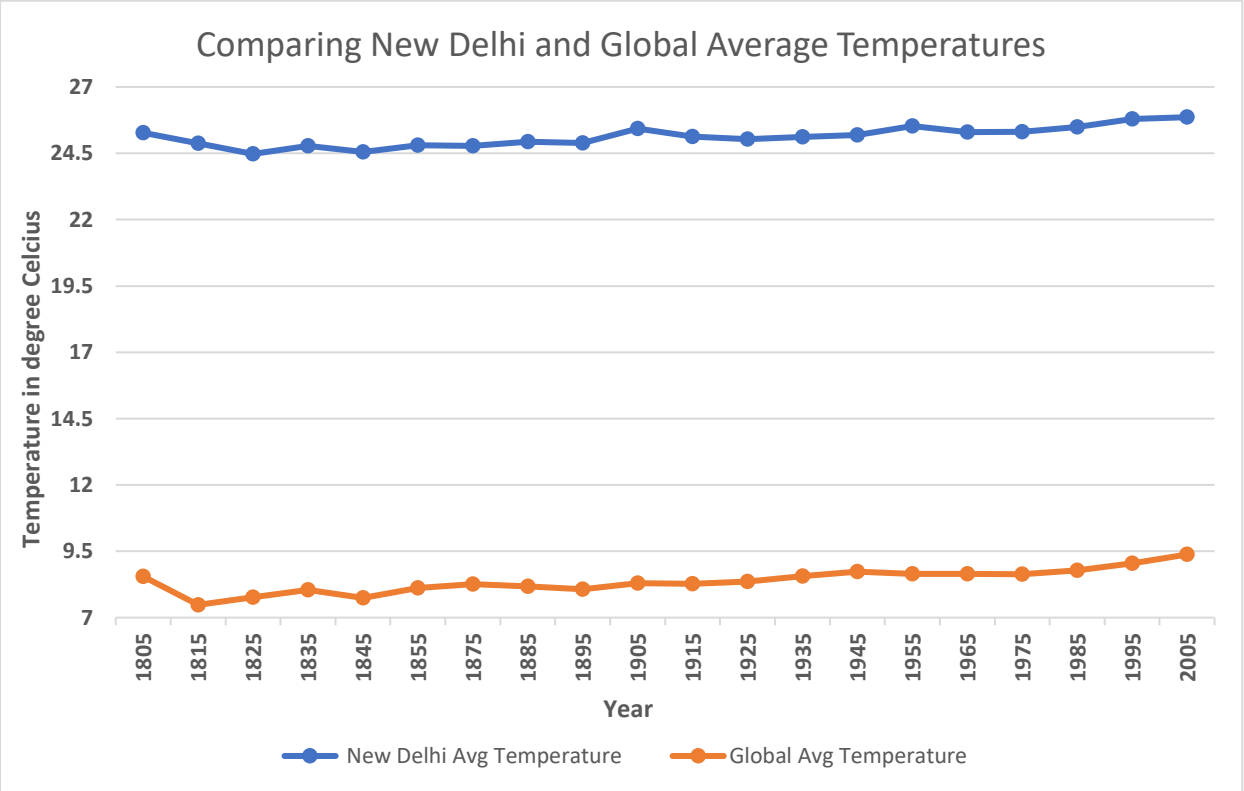
Exploring Weather Trends

Steps taken to prepare the data:

- **Extract Data:** Used SQL queries to create a new table joining the Global and New Delhi temperatures with year as common factor and download the data in a csv format. Removed Null Values from the data. PFB the SQL query.

  ```
  SELECT g.year, g.avg_temp as global_avg_temp, c.avg_temp as city_avg_temp
  FROM global_data as g
  left join city_data as c
  on g.year = c.year
  where c.city = 'New Delhi' AND c.avg_temp IS NOT NULL
  ```

- **Calculate Moving Average:** Leveraged excel to calculate 10 Year Averages for New Delhi (Local City) and Global Temperatures and then calculating the Moving averages for the 10-year periods.
- **Create line chart:** Plotted line chart comparing the temperatures of New Delhi and Global Average from the year 1805 to 2005. (New Delhi data had the year 1865 missing and hence is excluded)



Observations:

- New Delhi is at least 16 degrees hotter than the Global Average
- Since the advent of 20th century, the average temperatures have gone up by approximately 0.5 degrees
- The difference in temperatures have stayed consistent throughout the period.
- There is a general uptrend in the temperatures. The New Delhi temperatures have risen along with the Global temperatures