1. OUTLINE

1.1. Tools I used for each step?

- I used SQL to ingest and pull data from the database, then downloaded the data to my local machine as a csv file.

- I used Python Pandas to read and manipulate data. Drop null values from the dataframe. Then I compute the moving average for my home city and the global average, respectively

- I used Python's Matplotlib and Seaborn to visualize data.

1.2. Calculate the moving average

- First of all, I filter out all values which city name is Ho Chi Minh

- Then I used rolling(5).mean() method to caculate the moving average of 5 nearest temperature value

1.3. key considerations when deciding how to visualize the trends

- I consider the year when I compare Ho Chi Minh city with Global in order to keep these two values in the same range of years.

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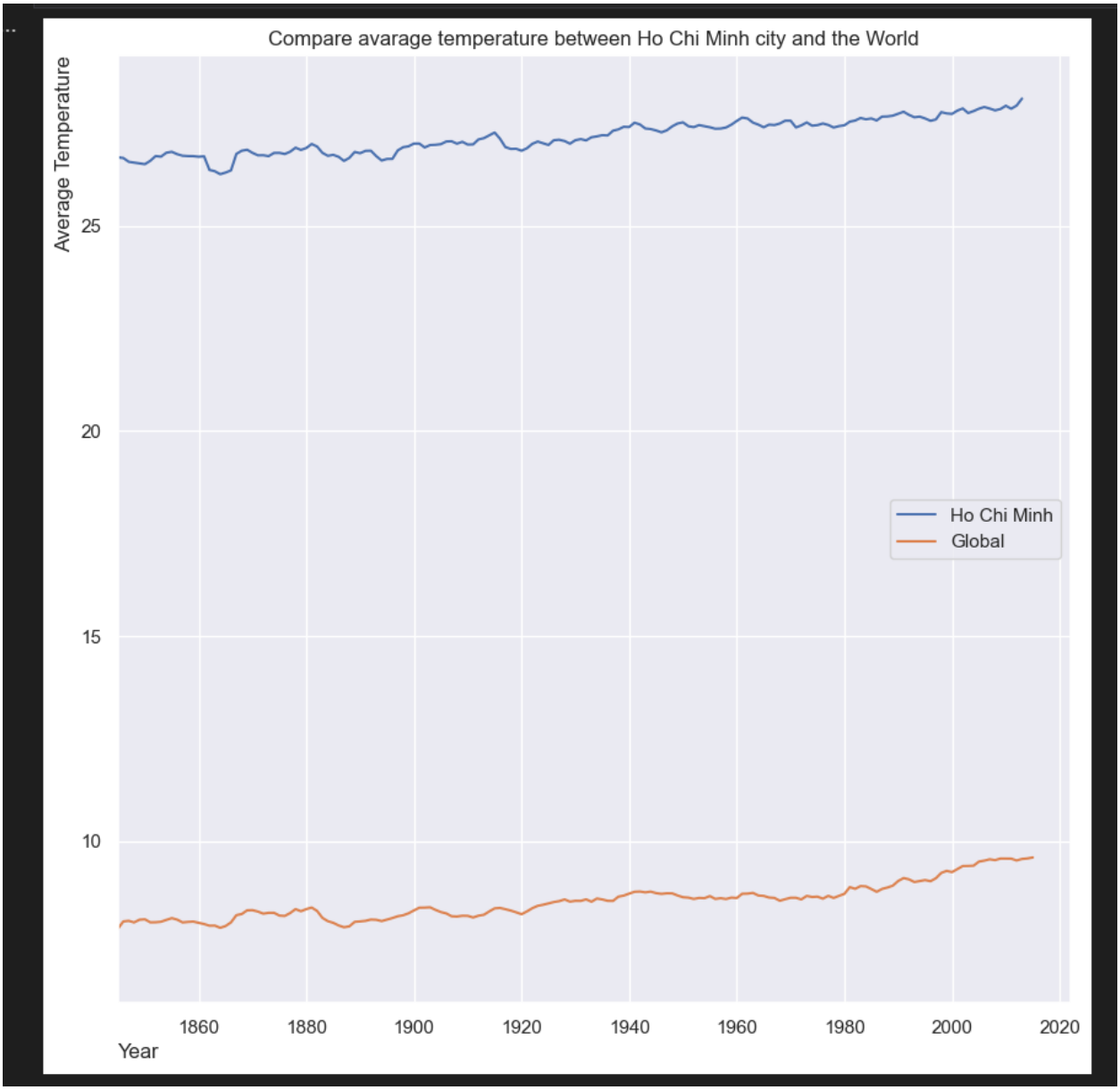
#### Some SQL code snipsets to ingest data

```
SELECT * FROM city_list;
SELECT * FROM city_data;
SELECT * FROM global_data;
```
```

2. Visualiaze data



3. Observations

- Temperatues is increase stedily though years

- Ho Chi Minh city Temperatures are approximately 20 degrees higher than the global average.

- The temperature in Ho Chi Minh City dropped dramatically between 1862 and 1864.

- Temperatues of both Ho Chi Minh city and Global is rise up and down like waves