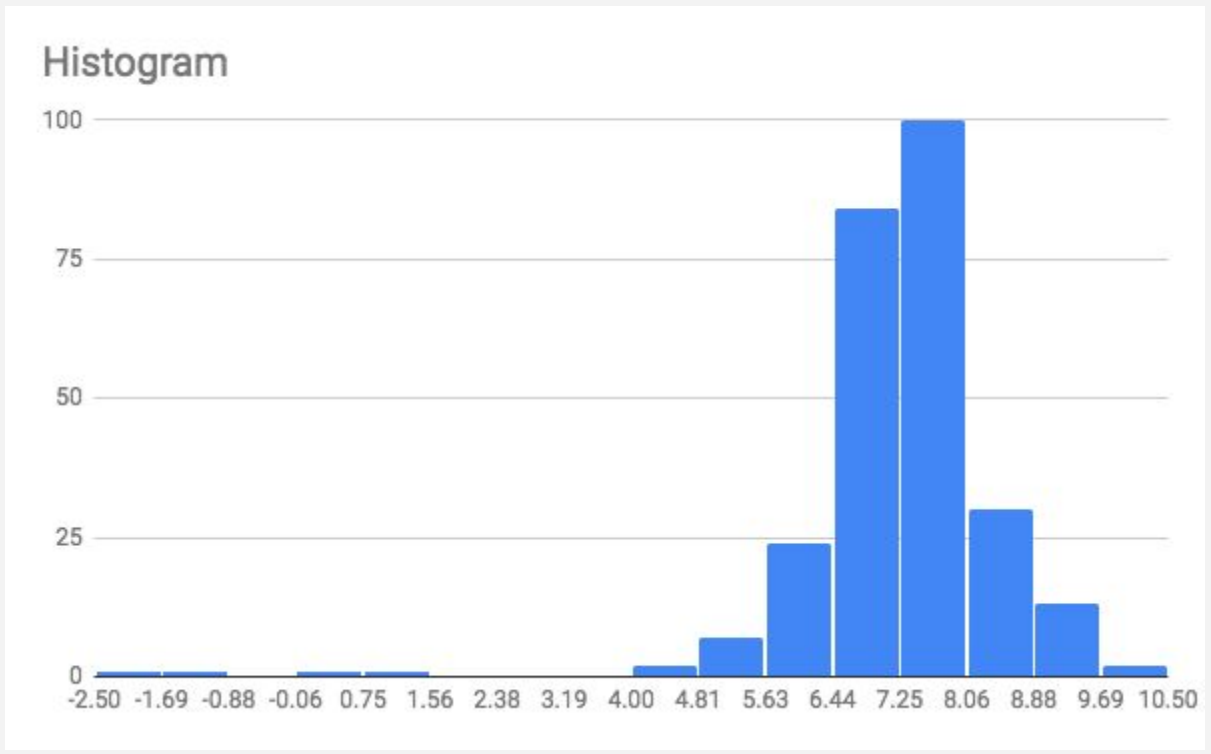
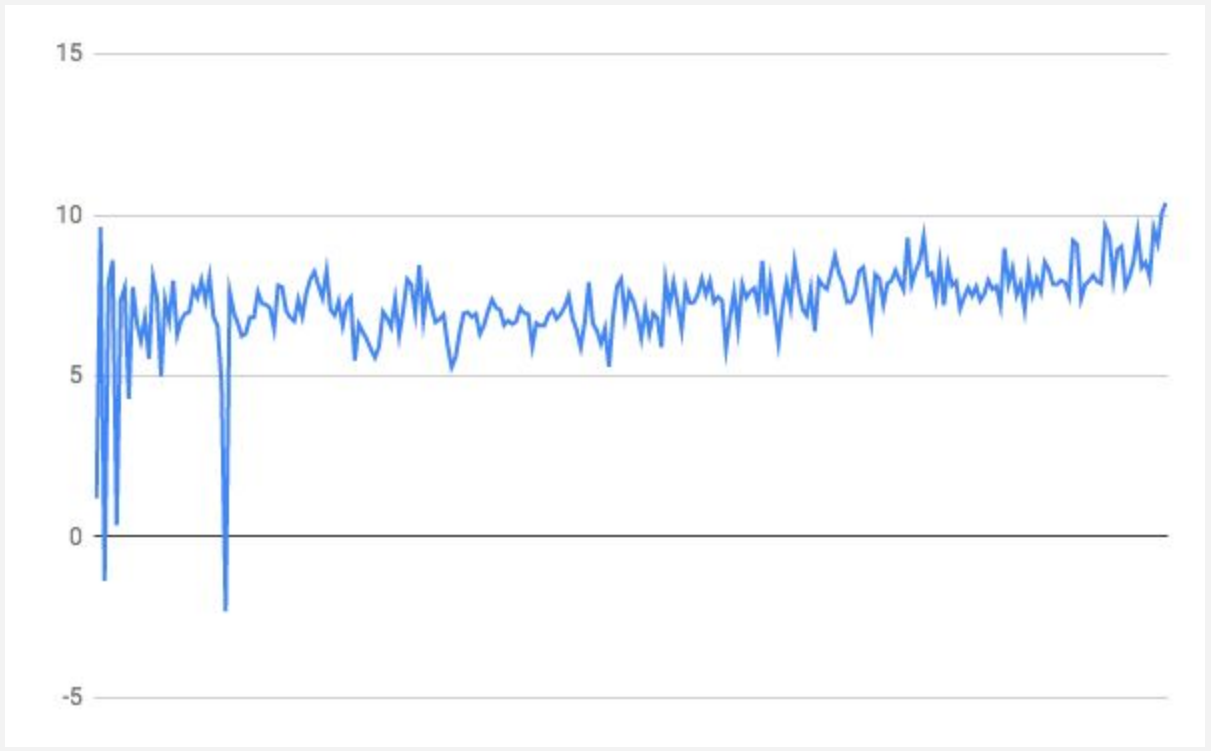
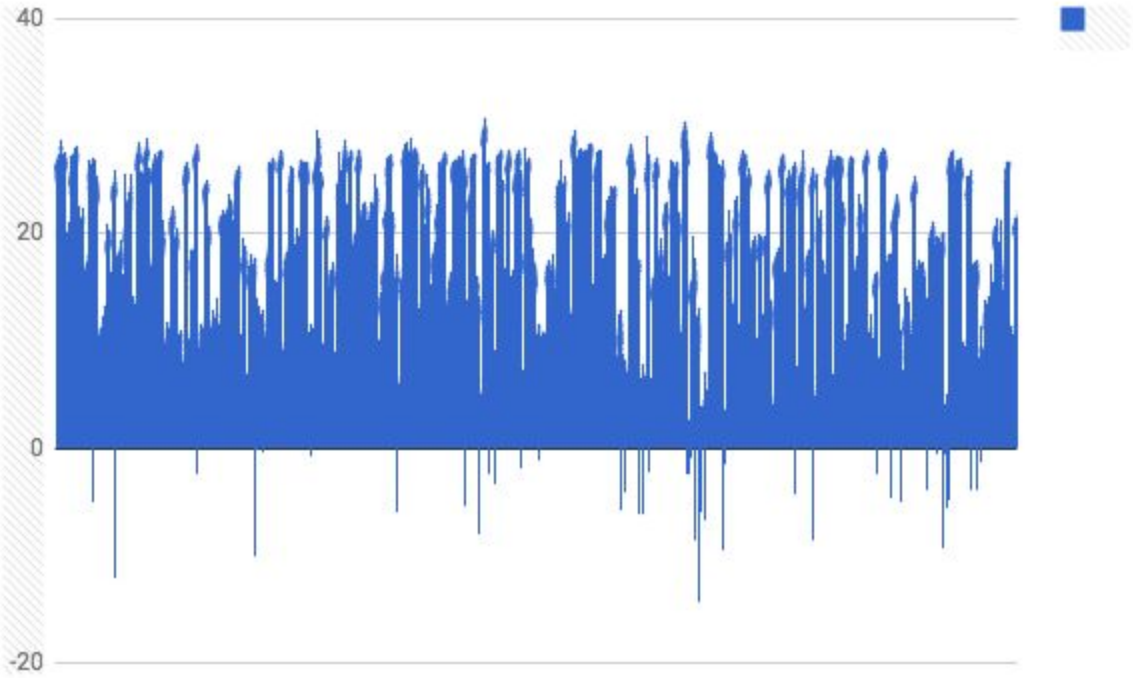


- Average Temperature of Boston : 7.25





- Average Global Temperature : 16.183

Queries :

- ❏ select * from global_data;
- ❏ select * from City_list
- ❏ select * from city_data

- ➢ **Is your city hotter or cooler on average compared to the global average? Has the difference been consistent over time?**
- ➢ From the graph plotted above we can observe that the average global temperature is 16.183 where the average temperature of Boston is 7.25.Hence we can say that Boston is cooler compared to global temperature.
- ➢ The difference has been consistent over

- ➢ **"How do the changes in your city's temperatures over time compare to the changes in the global average?"**
- ➢ The difference in temperature in Boston is very large.As we can see in the year 1743 the temperature was 1.19 where as in the year 2013 it was 10.38
- ➢ The difference in Global temperature is comparatively very minimal.As we can see in the year 1750 the temperature was 8.72 where as in the year 2015 it was 9.83.

- **What does the overall trend look like? Is the world getting hotter or cooler? Has the trend been consistent over the last few hundred years?**
- We can say that the overall the temperature is increasing in comparison to the respective previous years.The trend is not consistent ,in fact in recent last 15 years there is drastic increase in temperature.Hence the world is getting hotter.

- **An outline of steps taken to prepare the data to be visualized in the chart, such as:**

1) Run SQL SELECT query to get the Table content

2) Download the CSV to view data in form of Excel Sheet

3) Calculate the average of column required using the AVERAGE(ColumnName) formula ,hence import the values for fetching the graph

- **What tools did you use for each step? (Python, SQL, Excel, etc)**
  - I have used SQL and Excel .
  - Excel for calculating the average and fetching respective graphs
  - SQL for fetching the data :

```
select * from global_data;

select * from  City_list

select * from  city_data
```

- SQL for calculating the average using functions: (Just to cross check excel results)

```
select avg(avg_temp) from city_data (Global)
select avg(avg_temp) from city_data where city=”Boston” (City :Boston)
```

- **How did you calculate the moving average?**
  - By selecting the particular column and applying the Average(ColumnName) formula

What were your key considerations when deciding how to visualize the trends?

- The comparison with previous year’s and average temperature.

At least four observations about the similarities and/or differences in the trends

- Global temperature is increasing also temperature in Boston is increasing.
- The year 1779 was very cold in Boston with temperature in minus that is -2.9 where there wasn't much difference in global temperature compared to that of the global temperature trend.
- Average temperature in Boston is way lesser than that of World’s Average temperature that is 7.25 and 16.183 respectively.