# ANALYSING WEATHER TRENDS

# (UDACITY FIRST PROJECT)

## SQL QUERY TO GATHER THE DATA FROM THE SERVER

**select * from global_data;**

**select * from city_list;**

**select * from city_data where city='Pune' and country='India';**

## Display of some records

1. **Global Data**

```
globaltemp.head()
```

| | year | avg_temp |
|---|---|---|
| **0** | 1750 | 8.72 |
| **1** | 1751 | 7.98 |
| **2** | 1752 | 5.78 |
| **3** | 1753 | 8.39 |
| **4** | 1754 | 8.47 |

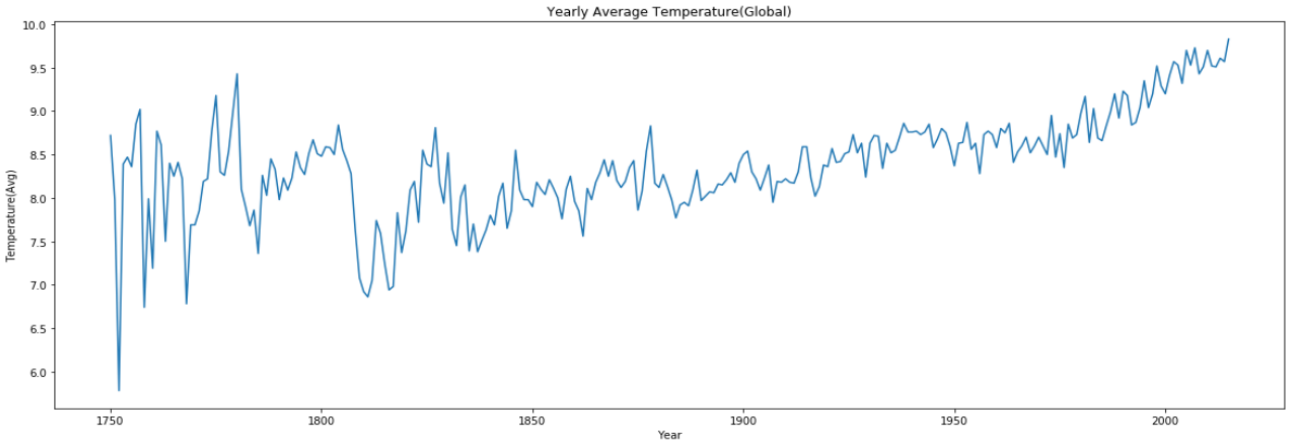
## 2. Local Data

```
citytemp.head()
```

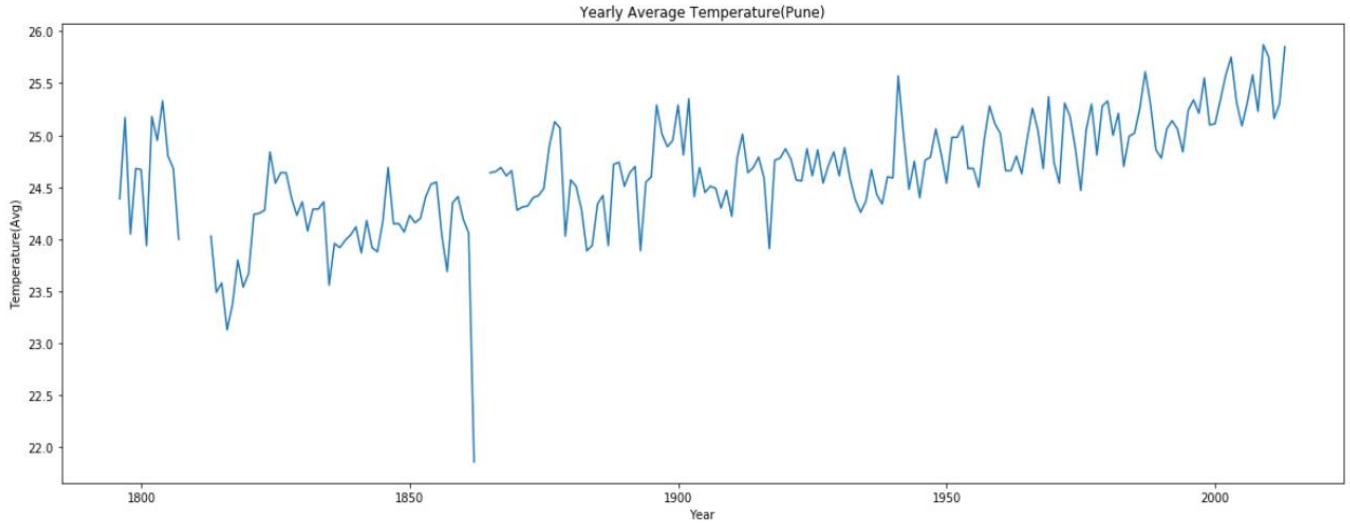
| | year | city | country | avg_temp |
|---|---|---|---|---|
| **0** | 1796 | Pune | India | 24.39 |
| **1** | 1797 | Pune | India | 25.17 |
| **2** | 1798 | Pune | India | 24.05 |
| **3** | 1799 | Pune | India | 24.68 |
| **4** | 1800 | Pune | India | 24.67 |

**Plotting the average global temperature and average local temperature individually.**

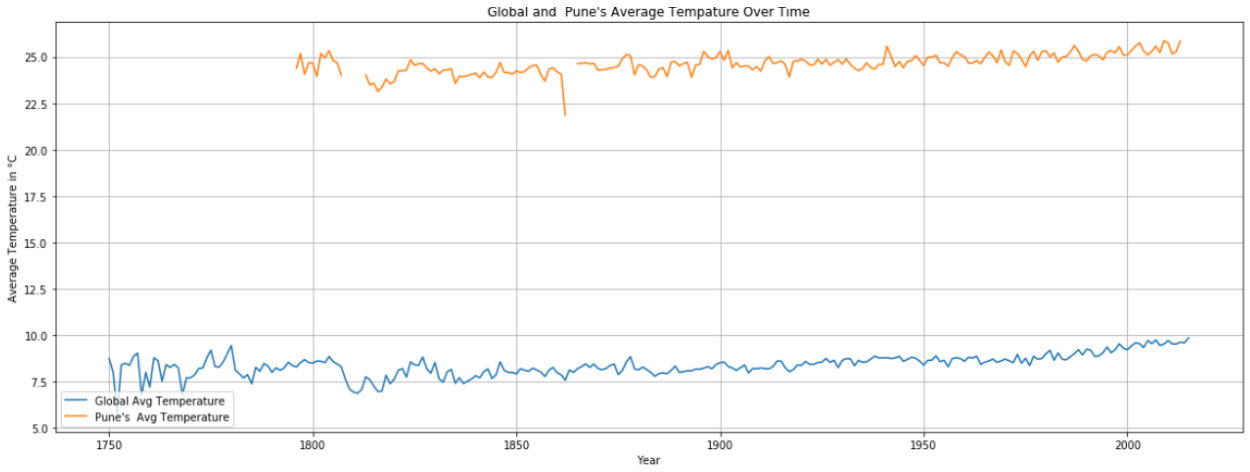
## 1. Plot of Average Global Temperature



## 2. Plot of Average Local Temperature



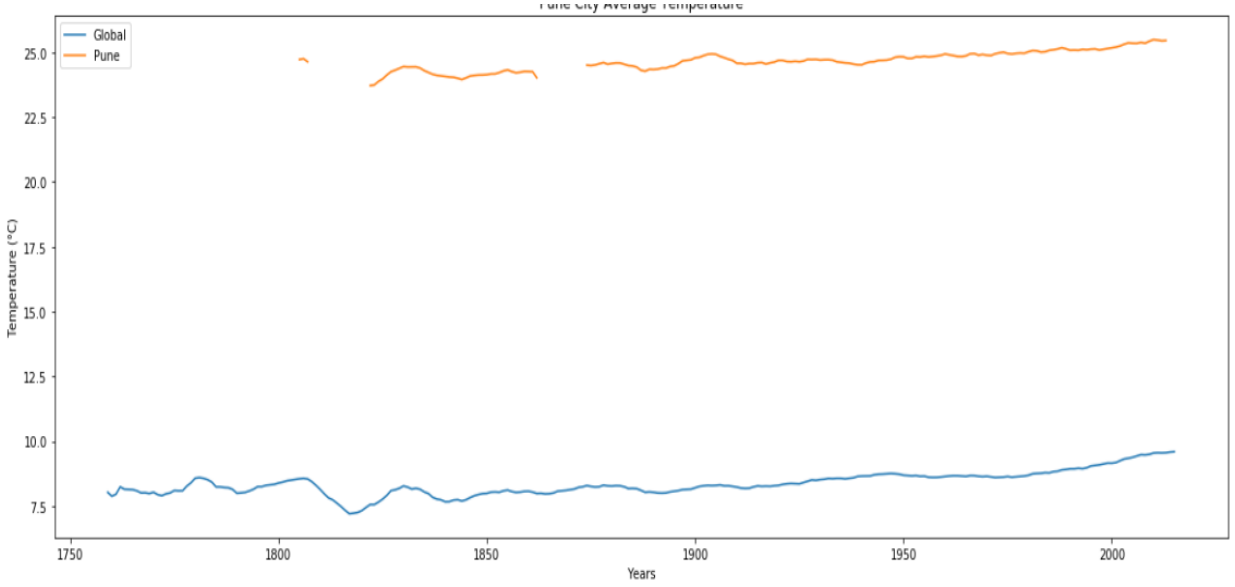

## 3. Combined Plot of Average Temperature (Global and Local)



## Calculating the moving average

```
glb_mv_avg = globaltemp['avg_temp'].rolling(10).mean()
local_mv_avg = citytemp['avg_temp'].rolling(10).mean()
```

## Plotting the moving average temperature (smoothed temperature)




**The global average temperature varies between 5.8 -10 degree Celsius whereas the average temperature of Pune as compared to global is too high and varies between approximately 21.8 to 25.8 and same is the case with smoothed average global and local temperature. Here also we can see that the local average temperature is so high as compared to the global average temperature which is an alarming indication for the planet and mankind.**