```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
plt.style.use('default')
%matplotlib inline

#-----------------------------------------------------------------------
--

# Reading CSV data in pandas dataframe
city_list = pd.read_csv('data/city_list.csv')
city_data = pd.read_csv('data/city_data.csv')
global_data = pd.read_csv('data/global_data.csv')

city_list.head()
```

	city	country
0	Abidjan	Côte D'Ivoire
1	Abu Dhabi	United Arab Emirates
2	Abuja	Nigeria
3	Accra	Ghana
4	Adana	Turkey

```
#----------------------Reading Delhi City Temp
Data----------------------------

city_data['MA10Yrs'] =city_data['avg_temp'].rolling(10).mean()
city_data.dropna(inplace=True)

delhi_data = city_data[city_data['city'].str.contains('Delhi')]
# delhi_data['MA10Yrs'] = delhi_data['avg_temp'].rolling(10).mean()
delhi_data.head()
```

	year	city	country	avg_temp	MA10Yrs
18444	1796	Delhi	India	25.03	6.988
18445	1797	Delhi	India	26.71	9.211
18446	1798	Delhi	India	24.29	11.105
18447	1799	Delhi	India	25.28	13.053
18448	1800	Delhi	India	25.21	15.110

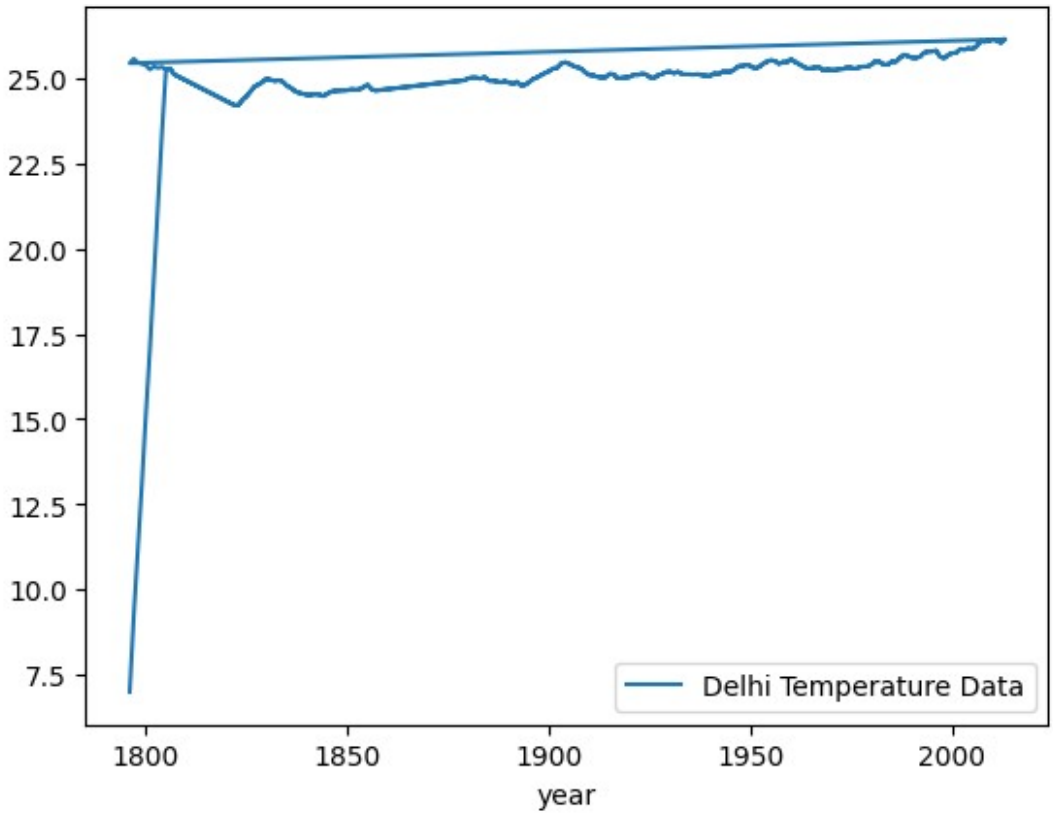
```
#------------------------Reading Global Data
-----------------------------------

global_data['MA10Yrs'] = global_data['avg_temp'].rolling(10).mean()
global_data.dropna(inplace=True)
global_data.head()
```

	year	avg_temp	MA10Yrs
9	1759	7.99	8.030
10	1760	7.19	7.877
11	1761	8.77	7.956

```
12  1762      8.61    8.239
13  1763      7.50    8.150
```

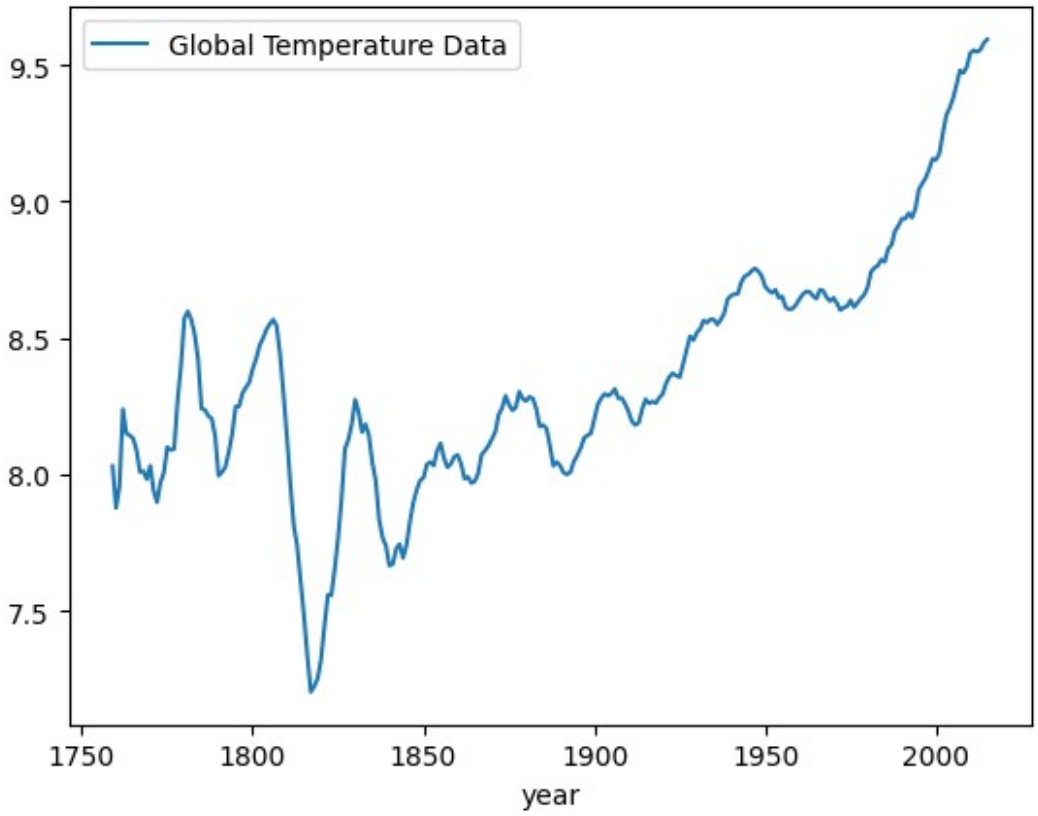
```
# Plotting graphs
#-------------------------Plotting Line graph of
Delhi----------------------------
delhi_data.plot(x='year', y = 'MA10Yrs', label = 'Delhi Temperature
Data')
```

```
<Axes: xlabel='year'>
```




```
#-----------------------------Plotting Global Data
-------------------------
global_data.plot(x='year', y = 'MA10Yrs', label = 'Global Temperature
Data')
```

```
<Axes: xlabel='year'>
```



Four observations

1. Delhi's temperature has very sharply increased post 1800 years, whereas global temperature dropped during that time.
2. Global temperature has steadily increased over last 150 years.
3. Rate of temperature increase of Delhi is slower than global rate of tempeature increase on a Moving average of 10 years.
4. Share rise in temperature in global temperature data is in line with rapid industrialisation globally