Udacity Data Analysis Nanodegree - Project 1: Exploring Weather Trends

Import Required Libraries

In [38]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

Getting City Data

In [39]:
```
kano_data = pd.read_csv("city_data.csv")  #  import Kano temperature dat
a over years to create a dataframe
```

In [40]:
```
kano.head() # confirm the city data frame
```

Out[40]:

	year	city	country	avg_temp
0	1856	Kano	Nigeria	26.32
1	1857	Kano	Nigeria	25.43
2	1858	Kano	Nigeria	25.98
3	1859	Kano	Nigeria	25.78
4	1860	Kano	Nigeria	25.31

Getting global data

In [41]:
```
global_data = pd.read_csv('global_data.csv') # importing global data
```

In [42]:
```
global_data.head() # confirm the global data frame
```

Out[42]:

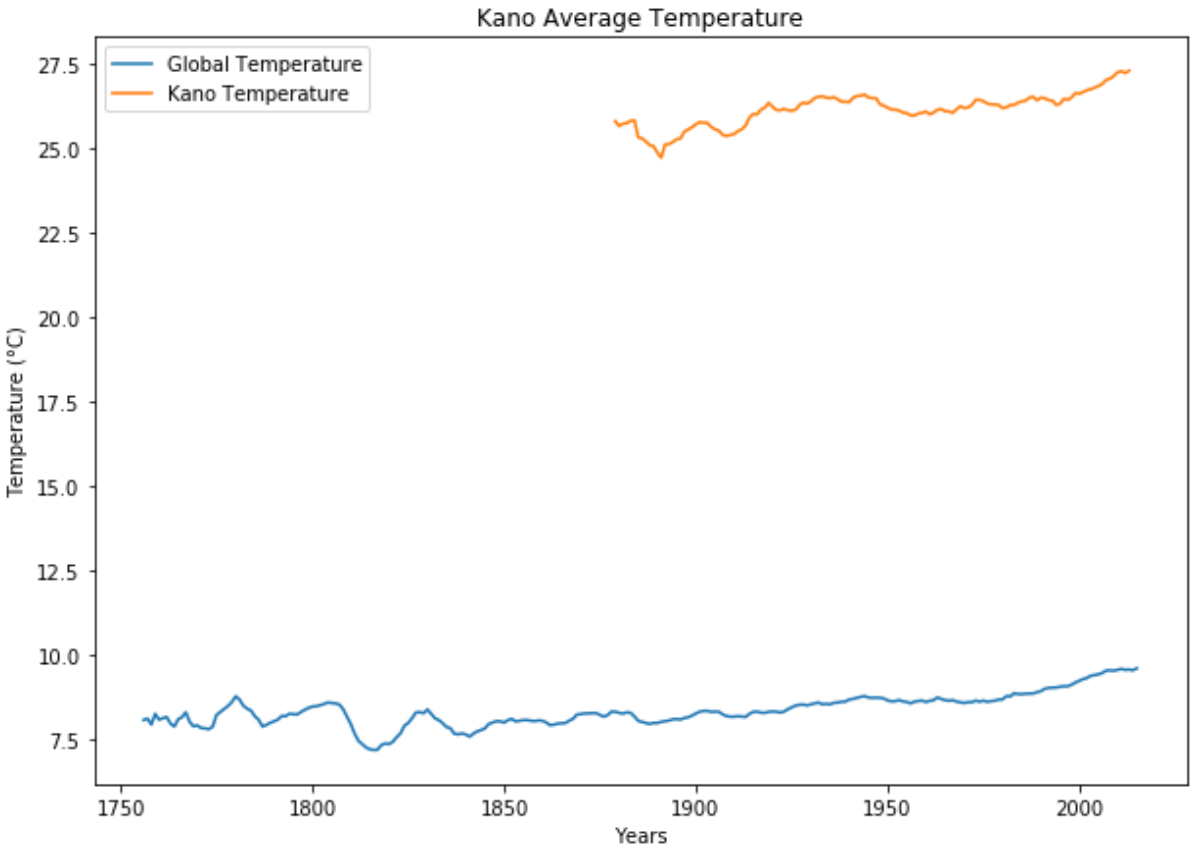
	year	avg_temp
0	1750	8.72
1	1751	7.98
2	1752	5.78
3	1753	8.39
4	1754	8.47

Creating Rolling Averages

In [43]:
```
kano_moving_avg = kano_data['avg_temp'].rolling(7).mean() #we do not wan
t to loose kano details in fluctuations
```

In [59]:
```
global_moving_avg = global_data['avg_temp'].rolling(7).mean() #we do not
want to loose global details in fluctuations
```

In [70]:
```
plt.plot(global_data['year'],global_moving_avg,label='Global Temperatur
e')
plt.plot(kano_data['year'],kano_moving_avg,label='Kano Temperature')
plt.legend()
plt.xlabel("Years")
plt.ylabel("Temperature (°C)")
plt.title("Kano Average Temperature")
plt.xticks
plt.yticks
plt.rcParams["figure.figsize"] = (10,5)
plt.show()
```



Insights

Kano has been hotter than the global average temperature. Kano has maintained this trend over the years. Generally the world is getting hotter considering the trends in the data