NAME - Kartik

In [ ]:
```
pip install wbgapi
```

In [1]:
```
import pandas as pd
import wbgapi as wb
import matplotlib.pyplot as plt
```

In [16]:
```
#Function using pandas to load the dataset values from the World Indicator dataset
datafrm=pd.read_csv(r"C:\\Kartik ADS2\World_Bank_Data.csv", low_memory=False)
```

In [17]:
```
#Initial rows of the dataset
datafrm.head(7)
```

Out[17]:

	economy	AUS	AUS.1	AUS.2	AUS.3	AUS.4	AUS.5	AUS.6	AU
0	series	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TC
1	YR1961	0.0	303000000.0	NaN	NaN	14.9985775248933	19683055213.3498	NaN	1048300
2	YR1962	0.0122204570450935	295000000.0	NaN	NaN	12.6089156220136	19922723709.262	NaN	1074200
3	YR1963	0.0182575038340758	301000000.0	NaN	NaN	13.809598086622	21539926083.548	NaN	1095000
4	YR1964	0.0230066390586998	289000000.0	NaN	NaN	13.7398833051007	23801097547.3177	NaN	1116700
5	YR1965	0.0209198768715818	296000000.0	NaN	NaN	15.2403535244665	25977153096.6514	NaN	1138800
6	YR1966	0.022237046920169	284000000.0	NaN	NaN	15.1035472626615	27309889125.322	NaN	1165100

7 rows × 81 columns

In [18]:
```
#Performing the index setting
datafrm1=datafrm.set_index('economy')
```

In [19]:
```
#Transposed data after setting the index
datafrm1.T.head(7)
```

Out[19]:

economy	series	YR1961	YR1962	YR1963	YR1964	YR1965	YR1966	
AUS	EG.ELC.NGAS.ZS	0.0	0.0122204570450935	0.0182575038340758	0.0230066390586998	0.0209198768715818	0.022237046920169	0.0205
AUS.1	EG.ELC.RNWX.KH	303000000.0	295000000.0	301000000.0	289000000.0	296000000.0	284000000.0	
AUS.2	EN.ATM.CO2E.PC	NaN	NaN	NaN	NaN	NaN	NaN	
AUS.3	EN.ATM.GHGT.KT.CE	NaN	NaN	NaN	NaN	NaN	NaN	
AUS.4	NE.IMP.GNFS.ZS	14.9985775248933	12.6089156220136	13.809598086622	13.7398833051007	15.2403535244665	15.1035472626615	13.8
AUS.5	NY.GDP.MKTP.CD	19683055213.3498	19922723709.262	21539926083.548	23801097547.3177	25977153096.6514	27309889125.322	304
AUS.6	SL.UEM.1524.FE.ZS	NaN	NaN	NaN	NaN	NaN	NaN	

7 rows × 61 columns

In [35]:
```
#Economic and climate indicators for the analysis
Econ_IND = ['NY.GDP.MKTP.CD','SP.POP.TOTL','SL.UEM.1524.FE.ZS','NE.IMP.GNFS.ZS']
country_code = ['BRA',"GBR",'IND','BGD','AUS','FRA','CHE','LUX','JPN','JAM']
Clim_IND=['EG.ELC.NGAS.ZS','EG.ELC.RNWX.KH','EN.ATM.CO2E.PC','EN.ATM.GHGT.KT.CE','EN.ATM.CO2E.PC']
ECONMY  = wb.data.DataFrame(Econ_IND, country_code, mrv=7)
CLMATE = wb.data.DataFrame(Clim_IND, country_code, mrv=7)
#NY.GDP.MKTP.CD: Current GDP of a nation
#SP.POP.TOTL: Total population of a nation
#SL.UEM.1524.FE.ZS: Female unemployment of youths
#NE.IMP.GNFS.ZS: Total import of a nation
#EG.ELC.NGAS.ZS: Electricity production using natural gas
#EG.ELC.RNWX.KH: Electricity production using renewable sources
#EN.ATM.GHGT.KT.CE: Greenshouse gas emissions
#EN.ATM.CO2E.PC: Carbon dioxide emissions in metric tons per capita
```

In [36]:
```
# Economic indicator analysis
ECONMY.columns = [a.replace('YR','') for a in ECONMY.columns]
ECONMY=ECONMY.stack().unstack(level=1)
ECONMY.index.names = ['Nation_Code', 'Year']
ECONMY.columns
ECONMY.fillna(0)
ECONMY.head(7)
```

Out[36]:

	series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL
Nation_Code	Year				
AUS	2015	21.556339	1.350534e+12	11.888	23815995.0
	2016	21.547899	1.206685e+12	11.400	24190907.0
	2017	20.714438	1.326883e+12	11.508	24601860.0
	2018	21.512513	1.428530e+12	10.719	24982688.0
	2019	21.675312	1.391953e+12	10.630	25365745.0
	2020	20.055673	1.327836e+12	13.164	25693267.0
	2021	17.834795	1.542660e+12	8.849	25739256.0

In [37]:
```
# Climate indicator analysis
CLMATE.columns = [a.replace('YR','') for a in CLMATE.columns]
CLMATE=CLMATE.stack().unstack(level=1)
CLMATE.index.names = ['Nation_Code', 'Year']
CLMATE.columns
CLMATE.fillna(0)
CLMATE.head(7)
```

Out[37]:

	series	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
Nation_Code	Year				
AUS	2013	20.452606	1.493900e+10	16.442316	580880.004883
	2014	21.909741	1.862200e+10	15.830422	597270.019531
	2015	20.795478	2.104400e+10	15.863288	596979.980469
	2016	NaN	NaN	15.914657	574450.012207
	2017	NaN	NaN	15.818316	623270.019531
	2018	NaN	NaN	15.493529	617390.014648
	2019	NaN	NaN	15.238267	585979.980469

In [38]:
```
#Eliminating the null values from dataset and resetting proper index
data1=ECONMY.reset_index()
data2=CLMATE.reset_index()
data3=data1.fillna(0)
data4=data2.fillna(0)
```

In [39]:
```
#Creating the dataframe for analysis by joining
final_data = pd.merge(data3, data4)
final_data.head(7)
```

Out[39]:

series	Nation_Code	Year	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATI
0	AUS	2015	21.556339	1.350534e+12	11.888	23815995.0	20.795478	2.104400e+10	15.863288	
1	AUS	2016	21.547899	1.206685e+12	11.400	24190907.0	0.000000	0.000000e+00	15.914657	
2	AUS	2017	20.714438	1.326883e+12	11.508	24601860.0	0.000000	0.000000e+00	15.818316	
3	AUS	2018	21.512513	1.428530e+12	10.719	24982688.0	0.000000	0.000000e+00	15.493529	
4	AUS	2019	21.675312	1.391953e+12	10.630	25365745.0	0.000000	0.000000e+00	15.238267	
5	BGD	2015	24.749323	1.950787e+11	12.983	156256287.0	80.703598	1.580000e+08	0.461997	
6	BGD	2016	17.412946	2.652362e+11	14.167	157977151.0	0.000000	0.000000e+00	0.470828	

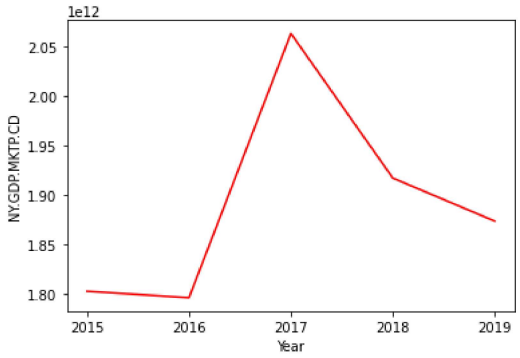
In [40]:
```
# Statistical analysis of Brazil
d1=final_data[(final_data['Nation_Code']=='BRA')]
d1.describe()
```

Out[40]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00
mean	13.385949	1.890328e+12	30.228800	2.077975e+08	2.733249	1.409740e+10	2.173657	1.068404e+06
std	1.354406	1.092154e+11	3.866609	2.603070e+06	6.111732	3.152274e+10	0.126804	1.914540e+04
min	11.800767	1.795693e+12	23.445999	2.044718e+08	0.000000	0.000000e+00	2.057811	1.046580e+06
25%	12.067003	1.802212e+12	30.910000	2.061631e+08	0.000000	0.000000e+00	2.071855	1.057260e+06
50%	14.053435	1.873288e+12	31.739000	2.078338e+08	0.000000	0.000000e+00	2.168575	1.063570e+06
75%	14.241204	1.916934e+12	32.019001	2.094693e+08	0.000000	0.000000e+00	2.196418	1.079310e+06
max	14.767339	2.063515e+12	33.029999	2.110495e+08	13.666247	7.048700e+10	2.373629	1.095300e+06

The average total import in Brazil is equal to 13.22

In [42]:
```
# Line plot chart- Brazil's Current GDP
plt.plot(d1["Year"], d1["NY.GDP.MKTP.CD"],color="red")
plt.ylabel("NY.GDP.MKTP.CD")
plt.xlabel("Year")
plt.show()
```



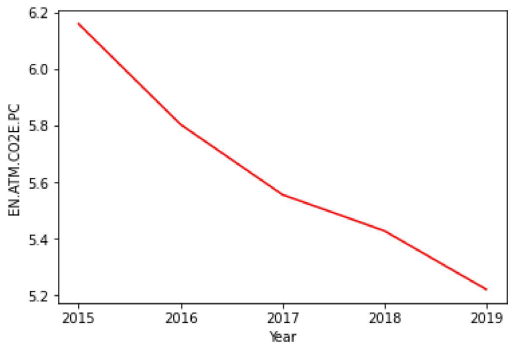
In [41]:
```
# Statistical analysis of Great Britain
d2=final_data[(final_data['Nation_Code']=='GBR')]
d2.describe()
```

Out[41]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000
mean	30.725835	2.831582e+12	10.759800	6.601667e+07	5.948043	1.545240e+10	5.633473	465591.992188
std	1.384927	1.140464e+11	1.382093	6.792208e+05	13.300229	3.455262e+10	0.362162	21664.908824
min	28.731477	2.699017e+12	9.121000	6.511622e+07	0.000000	0.000000e+00	5.220514	440079.986572
25%	29.858507	2.722852e+12	10.200000	6.561159e+07	0.000000	0.000000e+00	5.427748	453429.992676
50%	31.309071	2.878674e+12	10.549000	6.605886e+07	0.000000	0.000000e+00	5.555652	461609.985352
75%	31.807826	2.900791e+12	11.044000	6.646034e+07	0.000000	0.000000e+00	5.804005	476540.008545
max	31.922291	2.956574e+12	12.885000	6.683633e+07	29.740216	7.726200e+10	6.159448	496299.987793

The average Female unemployment of youths in Great Britain is lower than that of Brazil and the average carbon dioxide emissions in metric tons per capita in Great Britain is higher than that of Brazil

In [43]:
```
# Line plot chart- Great Britain's carbon dioxide emissions in metric tons per capita
plt.plot(d2["Year"], d2["EN.ATM.CO2E.PC"],color="red")
plt.ylabel("EN.ATM.CO2E.PC")
plt.xlabel("Year")
plt.show()
```



In [44]:
```
# Statistical analysis of India
d3=final_data[(final_data['Nation_Code']=='IND')]
d3.describe()
```

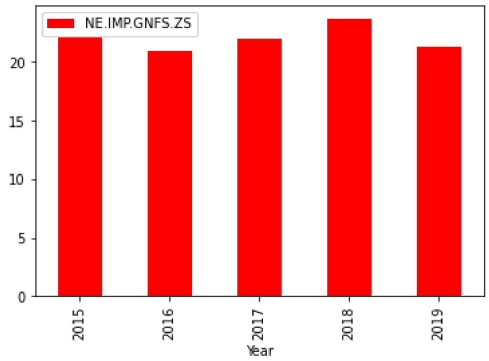
Out[44]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00
mean	21.989079	2.516868e+12	23.464400	1.338481e+09	0.984639	1.482860e+10	1.729645	3.239366e+06
std	1.067116	3.049095e+11	0.736510	2.224039e+07	2.201720	3.315776e+10	0.076741	1.539584e+05
min	20.924251	2.103588e+12	22.412001	1.310152e+09	0.000000	0.000000e+00	1.647152	3.064540e+06
25%	21.271545	2.294798e+12	23.073999	1.324517e+09	0.000000	0.000000e+00	1.657396	3.106340e+06
50%	21.950732	2.651473e+12	23.606001	1.338677e+09	0.000000	0.000000e+00	1.733361	3.242170e+06
75%	22.109725	2.702930e+12	23.968000	1.352642e+09	0.000000	0.000000e+00	1.797620	3.388910e+06
max	23.689141	2.831552e+12	24.261999	1.366418e+09	4.923196	7.414300e+10	1.812696	3.394870e+06

The average total greenshouse gas emission in India is higher than Brazil and Great Britain. The average total import of Great Britain is higher than India

In [45]:
```
# Bar plot chart-India's total imports
d3.plot(x="Year", y="NE.IMP.GNFS.ZS", kind="bar",color="red")
```

Out[45]: <AxesSubplot:xlabel='Year'>



In [46]:
```
# Statistical analysis of Bangladesh
d4=final_data[(final_data['Nation_Code']=='BGD')]
d4.describe()
```

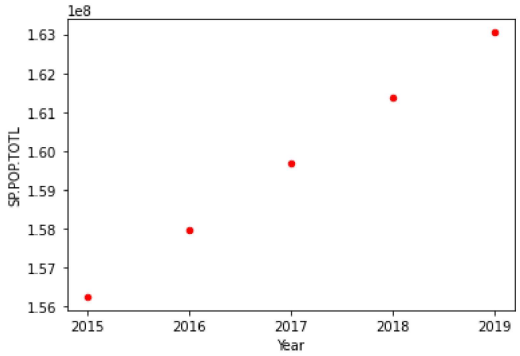
Out[46]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000
mean	19.533079	2.853374e+11	15.466200	1.596683e+08	16.140720	3.160000e+07	0.500664	202632.000732
std	3.099894	5.971492e+10	1.779283	2.684717e+06	36.091746	7.065975e+07	0.038051	9881.383801
min	17.179984	1.950787e+11	12.983000	1.562563e+08	0.000000	0.000000e+00	0.461997	192179.992676
25%	17.412946	2.652362e+11	14.167000	1.579772e+08	0.000000	0.000000e+00	0.470828	193960.006714
50%	18.483297	2.937546e+11	16.584000	1.596854e+08	0.000000	0.000000e+00	0.496852	203080.001831
75%	19.839844	3.213790e+11	16.729000	1.613767e+08	0.000000	0.000000e+00	0.517113	208000.000000
max	24.749323	3.512384e+11	16.868000	1.630462e+08	80.703598	1.580000e+08	0.556529	215940.002441

The average import in Bangladesh is lower than India and Great Britain. The average carbon dioxide emissions in metric tons per capita in Bangladesh is lower than India and Great Britain

In [47]:
```
# Scatter plot chart- Bangladesh's total population
d4.plot(x="Year", y="SP.POP.TOTL", kind="scatter",color="red")
```

Out[47]: <AxesSubplot:xlabel='Year', ylabel='SP.POP.TOTL'>



In [48]:
```
# Statistical analysis of Australia
d5=final_data[(final_data['Nation_Code']=='AUS')]
d5.describe()
```

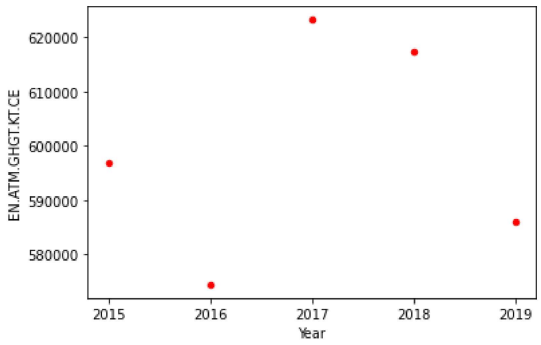
Out[48]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000
mean	21.401300	1.340917e+12	11.229000	2.459144e+07	4.159096	4.208800e+09	15.665612	599614.001465
std	0.388831	8.454028e+10	0.538578	6.153197e+05	9.300020	9.411163e+09	0.290109	20625.498697
min	20.714438	1.206685e+12	10.630000	2.381600e+07	0.000000	0.000000e+00	15.238267	574450.012207
25%	21.512513	1.326883e+12	10.719000	2.419091e+07	0.000000	0.000000e+00	15.493529	585979.980469
50%	21.547899	1.350534e+12	11.400000	2.460186e+07	0.000000	0.000000e+00	15.818316	596979.980469
75%	21.556339	1.391953e+12	11.508000	2.498269e+07	0.000000	0.000000e+00	15.863288	617390.014648
max	21.675312	1.428530e+12	11.888000	2.536574e+07	20.795478	2.104400e+10	15.914657	623270.019531

The average population of Australia is lower than that of Bangladesh and India. The average electricity production from renewable resources is higher than that of Bangladesh but lower than India

In [52]:
```
# Scatter plot chart-  Australia's greenshouse gas emission
d5.plot(x="Year", y="EN.ATM.GHGT.KT.CE", kind="scatter",color="red")
```

Out[52]: <AxesSubplot:xlabel='Year', ylabel='EN.ATM.GHGT.KT.CE'>



In [53]:
```
# Statistical analysis of France
d6=final_data[(final_data['Nation_Code']=='FRA')]
d6.describe()
```

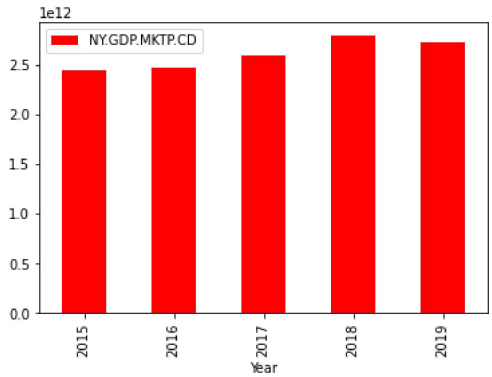
Out[53]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000
mean	31.859719	2.605426e+12	21.302800	6.690825e+07	0.702545	6.983400e+09	4.635348	427955.999756
std	0.829443	1.540671e+11	2.427877	2.815854e+05	1.570939	1.561536e+10	0.112855	9328.185050
min	30.852605	2.439189e+12	18.111000	6.654827e+07	0.000000	0.000000e+00	4.468770	414040.008545
25%	31.159072	2.472964e+12	19.892000	6.672410e+07	0.000000	0.000000e+00	4.575874	422739.990234
50%	32.013214	2.595151e+12	21.167999	6.691802e+07	0.000000	0.000000e+00	4.677807	433220.001221
75%	32.549418	2.728870e+12	23.388000	6.710193e+07	0.000000	0.000000e+00	4.704747	433600.006104
max	32.724285	2.790957e+12	23.955000	6.724893e+07	3.512726	3.491700e+10	4.749543	436179.992676

The average current GDP of France is higher than Australia and Bangladesh. The average electricity production from natural gas in France is lower than Australia and Bangladesh

In [57]:
```
# Bar plot chart- France's current GDP
d6.plot(x="Year", y="NY.GDP.MKTP.CD", kind="bar",color="red")
```

Out[57]: <AxesSubplot:xlabel='Year'>



In [58]:
```
# Statistical analysis of Switzerland
d7=final_data[(final_data['Nation_Code']=='CHE')]
d7.describe()
```

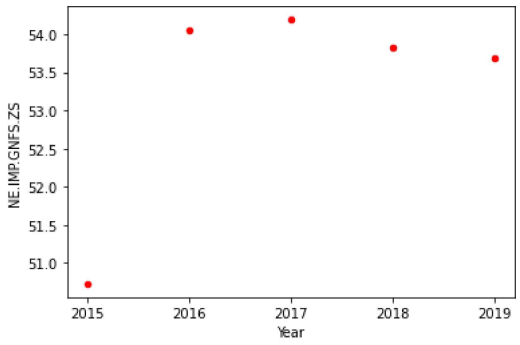
Out[58]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000
mean	53.295005	7.139071e+11	7.872200	8.439437e+06	0.200312	5.706000e+08	4.559444	47637.999725
std	1.449874	1.836577e+10	0.563322	1.153765e+05	0.447910	1.275900e+09	0.175183	1047.171594
min	50.725485	6.956007e+11	7.153000	8.282396e+06	0.000000	0.000000e+00	4.359041	46500.000000
25%	53.683832	7.021496e+11	7.437000	8.373338e+06	0.000000	0.000000e+00	4.401991	46610.000610
50%	53.820980	7.044785e+11	7.976000	8.451840e+06	0.000000	0.000000e+00	4.578885	47880.001068
75%	54.054473	7.317674e+11	8.394000	8.514329e+06	0.000000	0.000000e+00	4.719649	48349.998474
max	54.190254	7.355393e+11	8.401000	8.575280e+06	1.001558	2.853000e+09	4.737656	48849.998474

The average electricity production from natural gas in Switzerland is lower than France and Australia. The average total imports of Switzerland is higher than France and Australia

In [59]:
```
# Scatter plot chart- Switzerland's total import
d7.plot(x="Year", y="NE.IMP.GNFS.ZS", kind="scatter",color="red")
```

Out[59]: <AxesSubplot:xlabel='Year', ylabel='NE.IMP.GNFS.ZS'>



In [61]:
```
# Statistical analysis of Luxembourg
d8=final_data[(final_data['Nation_Code']=='LUX')]
d8.describe()
```

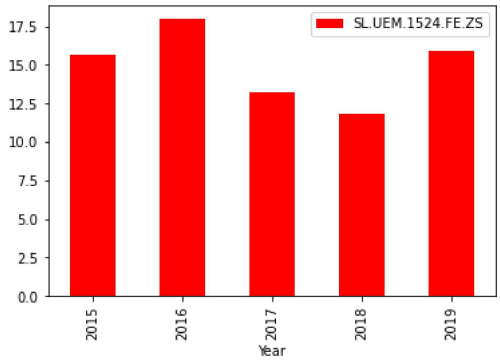
Out[61]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.0000	5.00000	5.000000	5.000000e+00	5.000000	5.000000
mean	163.203271	6.589628e+10	14.9084	595181.00000	12.531931	6.640000e+07	15.392659	10152.000046
std	6.799931	4.873976e+09	2.3992	20049.72945	28.022249	1.484749e+08	0.367786	248.937547
min	157.338776	6.007158e+10	11.8530	569604.00000	0.000000	0.000000e+00	15.092163	9850.000381
25%	159.296525	6.221689e+10	13.2100	582014.00000	0.000000	0.000000e+00	15.205820	10000.000000
50%	161.046488	6.571218e+10	15.6190	596336.00000	0.000000	0.000000e+00	15.306427	10119.999886
75%	163.712435	7.019572e+10	15.8990	607950.00000	0.000000	0.000000e+00	15.330208	10310.000420
max	174.622130	7.128502e+10	17.9610	620001.00000	62.659654	3.320000e+08	16.028680	10479.999542

The average total carbon dioxide emission in Luxembourg is higher than Switzerland and France. The average electricity production from renewable resources in Luxembourg is lower than Switzerland and France

In [66]:
```
# Bar plot chart- Luxembourg's female youth unemployment
d8.plot(x="Year", y="SL.UEM.1524.FE.ZS", kind="bar",color="red")
```

Out[66]: <AxesSubplot:xlabel='Year'>



In [67]:
```
# Statistical analysis of Japan
d9=final_data[(final_data['Nation_Code']=='JPN')]
d9.describe()
```

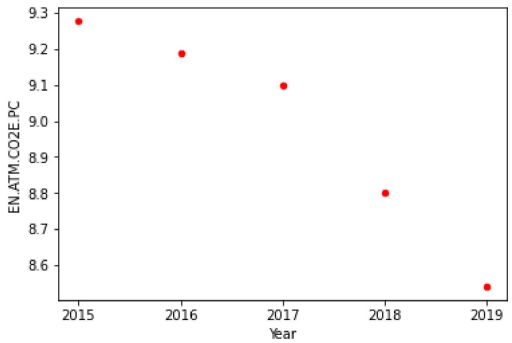
Out[67]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00	5.000000	5.000000e+00
mean	17.223038	4.908120e+12	4.187400	1.269266e+08	7.917443	1.605840e+10	8.981459	1.229972e+06
std	1.230919	2.680149e+11	0.785103	2.061026e+05	17.703942	3.590767e+10	0.304337	4.364137e+04
min	15.252278	4.444931e+12	3.051000	1.266330e+08	0.000000	0.000000e+00	8.540980	1.166510e+06
25%	16.831774	4.930837e+12	3.834000	1.268110e+08	0.000000	0.000000e+00	8.801681	1.204370e+06
50%	17.734442	5.003678e+12	4.446000	1.269720e+08	0.000000	0.000000e+00	9.098305	1.246640e+06
75%	17.990649	5.037835e+12	4.468000	1.270760e+08	0.000000	0.000000e+00	9.189698	1.261870e+06
max	18.306046	5.123318e+12	5.138000	1.271410e+08	39.587217	8.029200e+10	9.276629	1.270470e+06

The average population in Japan is higher than Luxembourg and Switzerland. The average greenhouse gas emissions in Japan is higher than Luxembourg and Switzerland

In [70]:
```
# Scatter plot chart- Japan's Carbon dioxide emissions in metric tons per capita
d9.plot(x="Year", y="EN.ATM.CO2E.PC", kind="scatter",color="red")
```

Out[70]: <AxesSubplot:xlabel='Year', ylabel='EN.ATM.CO2E.PC'>



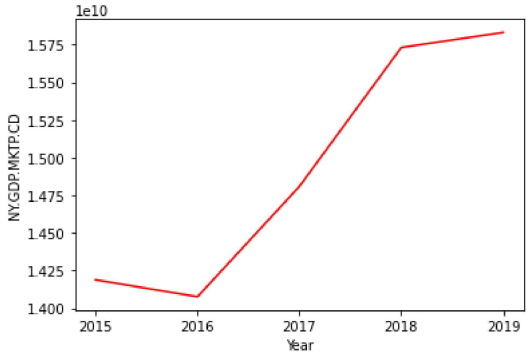
In [71]:
```
# Statistical analysis of Jamaica
d10=final_data[(final_data['Nation_Code']=='JAM')]
d10.describe()
```

Out[71]:

series	NE.IMP.GNFS.ZS	NY.GDP.MKTP.CD	SL.UEM.1524.FE.ZS	SP.POP.TOTL	EG.ELC.NGAS.ZS	EG.ELC.RNWX.KH	EN.ATM.CO2E.PC	EN.ATM.GHGT.KT.CE
count	5.000000	5.000000e+00	5.000000	5.000000e+00	5.0	5.000000e+00	5.000000	5.000000
mean	48.638454	1.492732e+10	35.067001	2.920249e+06	0.0	5.880000e+07	2.661696	9310.000038
std	3.221124	8.282301e+08	6.275750	2.263571e+04	0.0	1.314808e+08	0.218477	715.856143
min	44.641721	1.407711e+10	26.974001	2.891024e+06	0.0	0.000000e+00	2.452418	8590.000153
25%	46.195856	1.418894e+10	30.884001	2.906242e+06	0.0	0.000000e+00	2.471885	8739.999771
50%	48.866110	1.480899e+10	35.687000	2.920848e+06	0.0	0.000000e+00	2.604738	9090.000153
75%	51.414058	1.573079e+10	39.130001	2.934853e+06	0.0	0.000000e+00	2.845730	9970.000267
max	52.074527	1.583077e+10	42.660000	2.948277e+06	0.0	2.940000e+08	2.933707	10159.999847

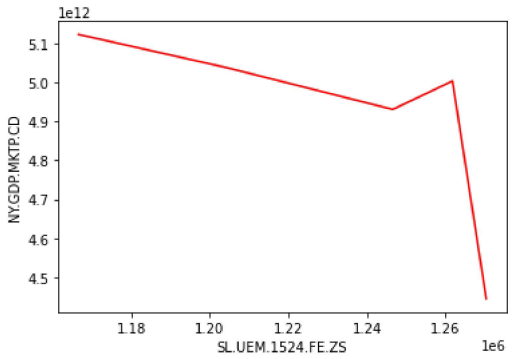
The average total import of Jamaica is lower than Luxembourg but higher than Japan. The average female youth unemployment in Jamaica is higher than Luxembourg and Japan

In [72]:
```
# Line plot chart- Jamaica's current GDP
plt.plot(d10["Year"], d10["NY.GDP.MKTP.CD"],color="red")
plt.ylabel("NY.GDP.MKTP.CD")
plt.xlabel("Year")
plt.show()
```

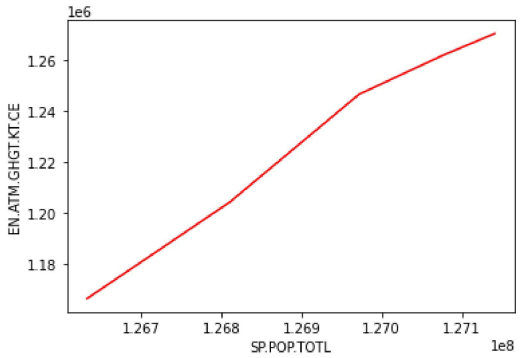


CORRELATION ANALYSIS- JAPAN

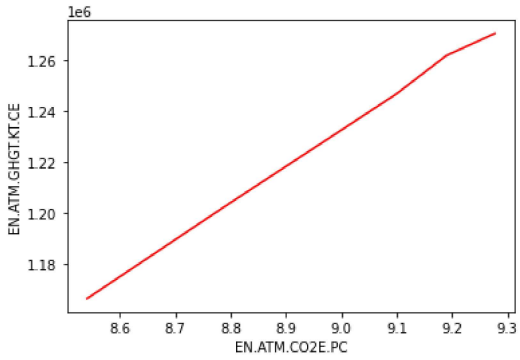
In [77]:
```
plt.plot(d9["EN.ATM.CO2E.PC"], d9["NY.GDP.MKTP.CD"],color="red")
plt.ylabel("NY.GDP.MKTP.CD")
plt.xlabel("EN.ATM.CO2E.PC")
plt.show()
```



In [78]:
```
plt.plot(d9["SP.POP.TOTL"], d9["EN.ATM.GHGT.KT.CE"],color="red")
plt.ylabel("EN.ATM.GHGT.KT.CE")
plt.xlabel("SP.POP.TOTL")
plt.show()
```



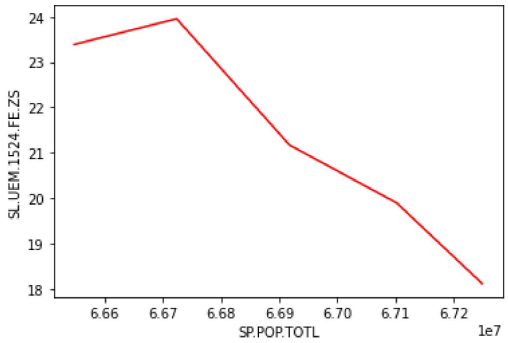
In [83]:
```
plt.plot(d9["EN.ATM.CO2E.PC"], d9["EN.ATM.GHGT.KT.CE"],color="red")
plt.ylabel("EN.ATM.GHGT.KT.CE")
plt.xlabel("EN.ATM.CO2E.PC")
plt.show()
```



CORRELATION ANALYSIS- FRANCE

In [86]:
```
plt.plot(d6["SP.POP.TOTL"], d6["SL.UEM.1524.FE.ZS"],color="red")
plt.ylabel("SL.UEM.1524.FE.ZS")
plt.xlabel("SP.POP.TOTL")

plt.show()
```



In [ ]: