Assignment 01: Evaluate the GDP Dataset

The comments/sections provided are your cues to perform the assignment. You don't need to limit yourself to the number of rows/cells provided. You can add additional rows in each section to add more lines of code.

If at any point in time you need help on solving this assignment, view our demo video to understand the different steps of the code.

Happy coding!

1: View and add the dataset

In [1]:

```
#Import required library
import numpy as np
import pandas as pd
```

In [34]:

```
#Manually add the dataset
data = pd.read_csv(r'C:\Users\Mandar\Downloads\Lesson 5\GDP dataset\Countries with GDP.tx
t')
data.head()
```

Out[34]:

	'Algeria'	'Angola'	'Argentina'	'Australia'	'Austria'	'Bahamas'	'Bangladesh'	'Belarus'	'Belgium'	'E
GDP values for each country:	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	NaN	
	2255.225482	629.9553062	11601.63022	25306.82494	27266.40335	19466.99052	588.3691778	2890.345675	24733.62696	1445.

2: Find and print the name of the country with the highest GDP

In [35]:

```
#Simplify the process
Countries = np.array(['Algeria','Angola','Argentina','Australia','Austria','Bahamas','Ban
gladesh','Belarus','Belgium','Bhutan','Brazil','Bulgaria','Cambodia','Cameroon','Chile','
China','Colombia','Cyprus','Denmark','El Salvador','Estonia','Ethiopia','Fiji','Finland',
'France','Georgia','Ghana','Grenada','Guinea','Haiti','Honduras','Hungary','India','Indon
esia','Ireland','Italy','Japan','Kenya', 'South Korea','Liberia','Malaysia','Mexico', 'M
orocco','Nepal','New Zealand','Norway','Pakistan', 'Peru','Qatar','Russia','Singapore','
South Africa','Spain','Sweden','Switzerland','Thailand', 'United Arab Emirates','United K
ingdom','United States','Uruguay','Venezuela','Vietnam','Zimbabwe'
])

gdp_per_capita = np.array([2255.225482,629.9553062,11601.63022,25306.82494,27266.40335,1
9466.99052,588.3691778,2890.345675,24733.62696,1445.760002,4803.398244,2618.876037,590.4
521124,665.7982328,7122.938458,2639.54156,3362.4656,15378.16704,30860.12808,2579.115607,
6525.541272,229.6769525,2242.689259,27570.4852,23016.84778,1334.646773,402.6953275,6047.
200797,394.1156638,385.5793827,1414.072488,5745.981529,837.7464011,1206.991065,27715.528
```

```
37,18937.24998,39578.07441,478.2194906,16684.21278,279.2204061,5345.213415,6288.25324,19
08.304416,274.8728621,14646.42094,40034.85063,672.1547506,3359.517402,36152.66676,3054.7
27742,33529.83052,3825.093781,15428.32098,33630.24604,39170.41371,2699.123242,21058.4364
3,28272.40661,37691.02733,9581.05659,5671.912202,757.4009286,347.7456605])
```

In [37]:

```
#Use the argmax() method to find the highest GDP

max_gdp_per_capita = gdp_per_capita.argmax()
```

```
Norway
```

In [42]:

```
#Print the name of the country
Countries_with_max_gdp = Countries[max_gdp_per_capita]
print(Countries_with_max_gdp)
```

```
Norway
```

3: Find and print the name of the country with the lowest GDP

In [40]:

```
#Use the argmin() method to find the lowest
min_gdp_per_capita = gdp_per_capita.argmin()
```

In [41]:

```
#Print the name of the country
Countries_with_min_gdp = Countries[min_gdp_per_capita]
print(Countries_with_min_gdp)
```

```
Ethiopia
```

4: Print out text ('evaluating country') and input value ('country name') iteratively

In [45]:

```
#Use a for loop to print the required output
for i in Countries:
    print('evaluating Countries {}' .format(i))
```

```
evaluating Countries Algeria
evaluating Countries Angola
evaluating Countries Argentina
evaluating Countries Australia
evaluating Countries Austria
evaluating Countries Bahamas
evaluating Countries Bangladesh
evaluating Countries Belarus
evaluating Countries Belgium
evaluating Countries Bhutan
evaluating Countries Brazil
evaluating Countries Bulgaria
evaluating Countries Cambodia
evaluating Countries Cameroon
evaluating Countries Chile
evaluating Countries China
evaluating Countries Colombia
evaluating Countries Cyprus
evaluating Countries Denmark
evaluating Countries El Salvador
evaluating Countries Estonia
evaluating Countries Ethiopia
evaluating Countries Fiji
evaluating Countries Finland
evaluating Countries France
evaluating Countries Georgia
```

```
evaluating Countries Georgia
evaluating Countries Ghana
evaluating Countries Grenada
evaluating Countries Guinea
evaluating Countries Haiti
evaluating Countries Honduras
evaluating Countries Hungary
evaluating Countries India
evaluating Countries Indonesia
evaluating Countries Ireland
evaluating Countries Italy
evaluating Countries Japan
evaluating Countries Kenya
evaluating Countries South Korea
evaluating Countries Liberia
evaluating Countries Malaysia
evaluating Countries Mexico
evaluating Countries Morocco
evaluating Countries Nepal
evaluating Countries New Zealand
evaluating Countries Norway
evaluating Countries Pakistan
evaluating Countries Peru
evaluating Countries Qatar
evaluating Countries Russia
evaluating Countries Singapore
evaluating Countries South Africa
evaluating Countries Spain
evaluating Countries Sweden
evaluating Countries Switzerland
evaluating Countries Thailand
evaluating Countries United Arab Emirates
evaluating Countries United Kingdom
evaluating Countries United States
evaluating Countries Uruguay
evaluating Countries Venezuela
evaluating Countries Vietnam
evaluating Countries Zimbabwe
```

5: Print out the entire list of the countries with their GDPs

In [47]:

```
#Use a for loop to print the required list
for i in range(len(Countries)):
    country = Countries[i]
    gdp = gdp_per_capita[i]
    print('{} with their gdp {}'.format(country,gdp))
```

```
Algeria with their gdp 2255.225482
Angola with their gdp 629.9553062
Argentina with their gdp 11601.63022
Australia with their gdp 25306.82494
Austria with their gdp 27266.40335
Bahamas with their gdp 19466.99052
Bangladesh with their gdp 588.3691778
Belarus with their gdp 2890.345675
Belgium with their gdp 24733.62696
Bhutan with their gdp 1445.760002
Brazil with their gdp 4803.398244
Bulgaria with their gdp 2618.876037
Cambodia with their gdp 590.4521124
Cameroon with their gdp 665.7982328
Chile with their gdp 7122.938458
China with their gdp 2639.54156
Colombia with their gdp 3362.4656
Cyprus with their gdp 15378.16704
Denmark with their gdp 30860.12808
El Salvador with their gdp 2579.115607
Estonia with their gdp 6525.541272
Ethiopia with their gdp 229.6769525
Fiji with their gdp 2242.680250
```

```
Fiji with their gdp 2242.689259
Finland with their gdp 27570.4852
France with their gdp 23016.84778
Georgia with their gdp 1334.646773
Ghana with their gdp 402.6953275
Grenada with their gdp 6047.200797
Guinea with their gdp 394.1156638
Haiti with their gdp 385.5793827
Honduras with their gdp 1414.072488
Hungary with their gdp 5745.981529
India with their gdp 837.7464011
Indonesia with their gdp 1206.991065
Ireland with their gdp 27715.52837
Italy with their gdp 18937.24998
Japan with their gdp 39578.07441
Kenya with their gdp 478.2194906
South Korea with their gdp 16684.21278
Liberia with their gdp 279.2204061
Malaysia with their gdp 5345.213415
Mexico with their gdp 6288.25324
Morocco with their gdp 1908.304416
Nepal with their gdp 274.8728621
New Zealand with their gdp 14646.42094
Norway with their gdp 40034.85063
Pakistan with their gdp 672.1547506
Peru with their gdp 3359.517402
Qatar with their gdp 36152.66676
Russia with their gdp 3054.727742
Singapore with their gdp 33529.83052
South Africa with their gdp 3825.093781
Spain with their gdp 15428.32098
Sweden with their gdp 33630.24604
Switzerland with their gdp 39170.41371
Thailand with their gdp 2699.123242
United Arab Emirates with their gdp 21058.43643
United Kingdom with their gdp 28272.40661
United States with their gdp 37691.02733
Uruguay with their gdp 9581.05659
Venezuela with their gdp 5671.912202
Vietnam with their gdp 757.4009286
Zimbabwe with their gdp 347.7456605
```

6: Print the following:

1. **Highest GPD value**
2. **Lowest GDP value**
3. **Mean GDP value**
4. **Standardized GDP value**
5. **Sum of all the GDPs**

In [49]:

```
print(gdp_per_capita.max())
print(gdp_per_capita.min())
print(gdp_per_capita.mean())
print(gdp_per_capita.std())
print(gdp_per_capita.sum())
```

```
40034.85063
229.6769525
11289.409271639683
12743.828910617945
711232.7841133
```