Assignment 01

November 18, 2021

1 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

[1]:
```
#Import required library
import numpy as np
```

[2]:
```
#Manually add the dataset
country_name = np.
 ↪array(['Algeria','Angola','Argentina','Australia','Austria','Bahamas',
                          ␣
 ↪'Bangladesh','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','Indonesia','Ireland','Italy','Japan','Kenya',␣
 ↪'South Korea',
                           'Liberia','Malaysia','Mexico', 'Morocco','Nepal','New␣
 ↪Zealand',
                           'Norway','Pakistan',␣
 ↪'Peru','Qatar','Russia','Singapore','South Africa',
                           'Spain','Sweden','Switzerland','Thailand', 'United␣
 ↪Arab Emirates',
                           'United Kingdom','United␣
 ↪States','Uruguay','Venezuela','Vietnam','Zimbabwe'])
```

```
country_gdp = np.array([2255.225482,629.9553062,11601.63022,25306.82494,27266.
↪40335,19466.99052,
                        588.3691778,2890.345675,24733.62696,1445.760002,4803.
↪398244,2618.876037,
                        590.4521124,665.7982328,7122.938458,2639.54156,3362.
↪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.
↪52837,18937.24998,
                        39578.07441,478.2194906,16684.21278,279.2204061,5345.
↪213415,6288.25324,
                        1908.304416,274.8728621,14646.42094,40034.85063,672.
↪1547506,3359.517402,
                        36152.66676,3054.727742,33529.83052,3825.093781,15428.
↪32098,33630.24604,
                        39170.41371,2699.123242,21058.43643,28272.40661,37691.
↪02733,9581.05659,
                        5671.912202,757.4009286,347.7456605])
```

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

[3]:
```
#Use the argmax() method to find the highest GDP
highest_gdp = country_gdp.argmax()
```

[4]:
```
#Print the name of the country
highest_gdp_country = country_name[highest_gdp]
highest_gdp_country
```

[4]: 'Norway'

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

[5]:
```
#Use the argmin() method to find the lowest GDP
lowest_gdp = country_gdp.argmin()
```

[6]:
```
#Print the name of the country
lowest_gdp_country = country_name[lowest_gdp]
lowest_gdp_country
```

[6]: 'Ethiopia'

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

[7]:
```
#Use a for loop to print the required output
for country in country_name:
        print("Evaluating Country {}".format(country))
```

```
Evaluating Country Algeria
Evaluating Country Angola
Evaluating Country Argentina
Evaluating Country Australia
Evaluating Country Austria
Evaluating Country Bahamas
Evaluating Country Bangladesh
Evaluating Country Belarus
Evaluating Country Belgium
Evaluating Country Bhutan
Evaluating Country Brazil
Evaluating Country Bulgaria
Evaluating Country Cambodia
Evaluating Country Cameroon
Evaluating Country Chile
Evaluating Country China
Evaluating Country Colombia
Evaluating Country Cyprus
Evaluating Country Denmark
Evaluating Country El Salvador
Evaluating Country Estonia
Evaluating Country Ethiopia
Evaluating Country Fiji
Evaluating Country Finland
Evaluating Country France
Evaluating Country Georgia
Evaluating Country Ghana
Evaluating Country Grenada
Evaluating Country Guinea
Evaluating Country Haiti
Evaluating Country Honduras
Evaluating Country Hungary
Evaluating Country India
Evaluating Country Indonesia
Evaluating Country Ireland
Evaluating Country Italy
Evaluating Country Japan
Evaluating Country Kenya
Evaluating Country South Korea
Evaluating Country Liberia
Evaluating Country Malaysia
Evaluating Country Mexico
Evaluating Country Morocco
Evaluating Country Nepal
Evaluating Country New Zealand
Evaluating Country Norway
Evaluating Country Pakistan
Evaluating Country Peru
```

```
Evaluating Country Qatar
Evaluating Country Russia
Evaluating Country Singapore
Evaluating Country South Africa
Evaluating Country Spain
Evaluating Country Sweden
Evaluating Country Switzerland
Evaluating Country Thailand
Evaluating Country United Arab Emirates
Evaluating Country United Kingdom
Evaluating Country United States
Evaluating Country Uruguay
Evaluating Country Venezuela
Evaluating Country Vietnam
Evaluating Country Zimbabwe
```

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

[8]:
```
#Use a for loop to print the required list
for i in range(len(country_name)):
    country = country_name[i]
    gdp = country_gdp[i]
    print("The country {} has a per capita GDP of {}".format(country,gdp))
```

```
The country Algeria has a per capita GDP of 2255.225482
The country Angola has a per capita GDP of 629.9553062
The country Argentina has a per capita GDP of 11601.63022
The country Australia has a per capita GDP of 25306.82494
The country Austria has a per capita GDP of 27266.40335
The country Bahamas has a per capita GDP of 19466.99052
The country Bangladesh has a per capita GDP of 588.3691778
The country Belarus has a per capita GDP of 2890.345675
The country Belgium has a per capita GDP of 24733.62696
The country Bhutan has a per capita GDP of 1445.760002
The country Brazil has a per capita GDP of 4803.398244
The country Bulgaria has a per capita GDP of 2618.876037
The country Cambodia has a per capita GDP of 590.4521124
The country Cameroon has a per capita GDP of 665.7982328
The country Chile has a per capita GDP of 7122.938458
The country China has a per capita GDP of 2639.54156
The country Colombia has a per capita GDP of 3362.4656
The country Cyprus has a per capita GDP of 15378.16704
The country Denmark has a per capita GDP of 30860.12808
The country El Salvador has a per capita GDP of 2579.115607
The country Estonia has a per capita GDP of 6525.541272
The country Ethiopia has a per capita GDP of 229.6769525
The country Fiji has a per capita GDP of 2242.689259
The country Finland has a per capita GDP of 27570.4852
The country France has a per capita GDP of 23016.84778
```

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

[10]:
```
print("Highest GDP is: {}".format(country_gdp.max()))
print("Lowest GDP is: {}".format(country_gdp.min()))
print("Mean GDP is: {}".format(country_gdp.mean()))
print("Sum of GDP is: {}".format(country_gdp.std()))
print("Sum of GDP is: {}".format(country_gdp.sum()))
```

```
Highest GDP is: 40034.85063
Lowest GDP is: 229.6769525
Mean GDP is: 11289.409271639683
Sum of GDP is: 12743.828910617945
Sum of GDP is: 711232.7841133
```

[ ]:
```

```