

Assignment_02

January 9, 2020

1 Assignment 02: Evaluate the Summer Olympics, London 2012 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 the necessary library
import numpy as np

[3]: #Manually add the Summer Olympics, London 2012 dataset as arrays
countries = np.array(["Great Britain",
                      "China",
                      "Russia",
                      "United States",
                      "Korea",
                      "Japan",
                      "Germany"])

[4]: country_codes = np.array(["GBR",
                              "CHN",
                              "RUS",
                              "US",
                              "KOR",
                              "JPN",
                              "GER"])

[5]: year = np.array([2012,
                     2012,
                     2012,
                     2012,
                     2012,
                     2012])
```

```
[6]: gold = np.array([29,
                      38,
                      24,
                      46,
                      13,
                      7,
                      11])
```

```
[7]: silver = np.array([17,
                        28,
                        25,
                        28,
                        8,
                        14,
                        11])
```

```
[8]: bronze = np.array([19,
                        22,
                        32,
                        29,
                        7,
                        17,
                        14])
```

Find the country with maximum gold medals

```
[9]: #Use the argmax() method to find the highest number of gold medals
print("Maximum number of gold models: {}".format(gold[np.argmax(gold)]))
```

Maximum number of gold models: 46

```
[10]: #Print the name of the country
print("Country with maximum number of gold models: {}".format(countries[np.
    ↳argmax(gold)]))
```

Country with maximum number of gold models: United States

Find the countries with more than 20 gold medals

```
[11]: #Use Boolean indexing technique to find the required output
countries_with_more_than_20_gold = gold > 20
```

```
[12]: countries_with_more_than_20_gold = countries[countries_with_more_than_20_gold]
```

```
[13]: for country in countries_with_more_than_20_gold:
      print(country)
```

Great Britain
China

Russia
United States

Evaluate the dataset and print the name of each country with its gold medals and total number of medals

```
[14]: #Use a for loop to create the required output
      for index in range(len(countries)):
          gold_medals = gold[index]
          country_name = countries[index]
          silver_medals = silver[index]
          bronze_medals = bronze[index]
          total_medals = gold_medals + silver_medals + bronze_medals
          print("Country: {}, Gold: {}, Total Medals: {}".format(country_name,
                                                                    gold_medals,
                                                                    total_medals))
```

Country: Great Britain, Gold: 29, Total Medals: 65
Country: China, Gold: 38, Total Medals: 88
Country: Russia, Gold: 24, Total Medals: 81
Country: United States, Gold: 46, Total Medals: 103
Country: Korea, Gold: 13, Total Medals: 28
Country: Japan, Gold: 7, Total Medals: 38
Country: Germany, Gold: 11, Total Medals: 36