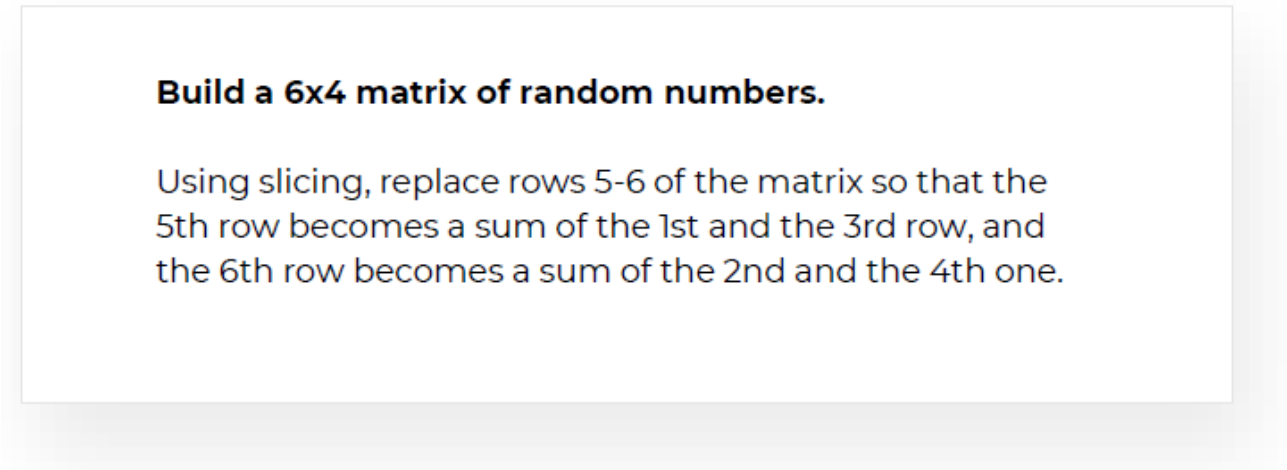
Unit 2.2 Graded Assignment: Numpy - build matrix

Instructions:



Submitted By:

1. **Syed Muhammad Hammad Irshad (2303.KHI.DEG.032)**
2. **Arshad Shiwani (2303.KHI.DEG.026)**

Solution:

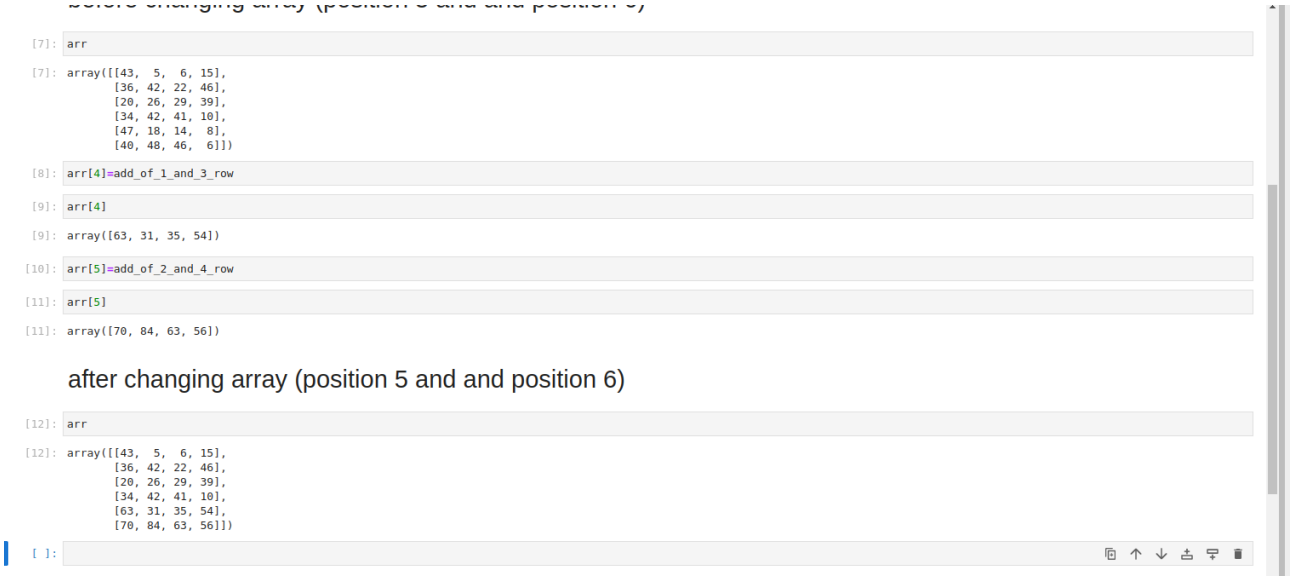
In this assignment we use numpy to create matrix and change position 5 by adding position 1 and 3 similarly for position 6 adding position 2 and 4

```
[1]: import numpy as np

[2]: arr=np.random.randint(5,50,24).reshape(6,4)
     arr

[2]: array([[43,  5,  6, 15],
            [36, 42, 22, 46],
            [20, 26, 29, 39],
            [34, 42, 41, 10],
            [47, 18, 14,  8],
            [40, 48, 46,  6]])

[3]: add_of_1_and_3_row=np.add(arr[0:1],arr[2:3])

[4]: add_of_1_and_3_row

[4]: array([[63, 31, 35, 54]])

[5]: add_of_2_and_4_row=np.add(arr[1:2],arr[3:4])

[6]: add_of_2_and_4_row

[6]: array([[70, 84, 63, 56]])
```

before changing array (position 5 and and position 6)

```
[7]: arr

[7]: array([[43,  5,  6, 15],
            [36, 42, 22, 46],
            [20, 26, 29, 39],
            [34, 42, 41, 10],
            [47, 18, 14,  8],
            [40, 48, 46,  6]])
```

after adding we got this matrix



```
[7]: arr

[7]: array([[43,  5,  6, 15],
            [36, 42, 22, 46],
            [20, 26, 29, 39],
            [34, 42, 41, 10],
            [47, 18, 14,  8],
            [40, 48, 46,  6]])

[8]: arr[4]=add_of_1_and_3_row

[9]: arr[4]

[9]: array([63, 31, 35, 54])

[10]: arr[5]=add_of_2_and_4_row

[11]: arr[5]

[11]: array([70, 84, 63, 56])
```

after changing array (position 5 and and position 6)

```
[12]: arr

[12]: array([[43,  5,  6, 15],
             [36, 42, 22, 46],
             [20, 26, 29, 39],
             [34, 42, 41, 10],
             [63, 31, 35, 54],
             [70, 84, 63, 56]])

[ ]:
```