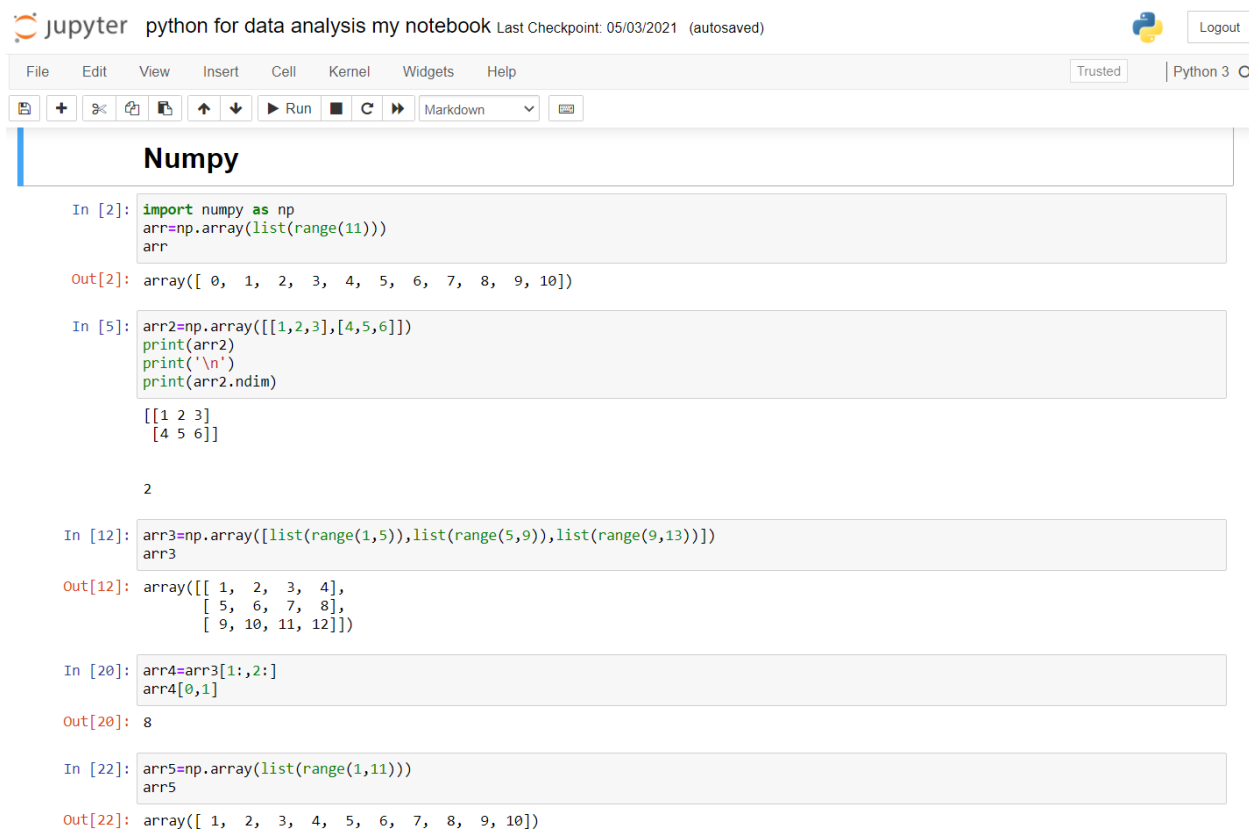


بنام خدا.

با توجه به **issue** تعریف شده،نسبت به یادگیری پایتون و نیز کتابخانه **numpy** اقدام شد.در ادامه این فایل،تصاویر مربوط به اجرای مطالب فراگرفته شده پیوست شده است.



The image shows a Jupyter Notebook interface with the title "python for data analysis my notebook". The interface includes a top bar with the Jupyter logo, the title, and a "Logout" button. Below the top bar is a menu bar with options: File, Edit, View, Insert, Cell, Kernel, Widgets, and Help. A toolbar with various icons for file operations and execution is located below the menu bar. The notebook content is displayed in a cell with the title "Numpy". The code and output are as follows:

```
In [2]: import numpy as np
arr=np.array(list(range(11)))
arr

Out[2]: array([ 0,  1,  2,  3,  4,  5,  6,  7,  8,  9, 10])

In [5]: arr2=np.array([[1,2,3],[4,5,6]])
print(arr2)
print('\n')
print(arr2.ndim)

[[1 2 3]
 [4 5 6]]

2

In [12]: arr3=np.array([list(range(1,5)),list(range(5,9)),list(range(9,13))])
arr3

Out[12]: array([[ 1,  2,  3,  4],
 [ 5,  6,  7,  8],
 [ 9, 10, 11, 12]])

In [20]: arr4=arr3[1:,2:]
arr4[0,1]

Out[20]: 8

In [22]: arr5=np.array(list(range(1,11)))
arr5

Out[22]: array([ 1,  2,  3,  4,  5,  6,  7,  8,  9, 10])
```



```
In [13]: names='Reza,Ali,Sara,Kian'
students=names.split(',')
for student in students:
    print(student)
```

```
Reza
Ali
Sara
Kian
```

## Lists

```
In [31]: my_numbers=[1,2,3,4,5]
number=my_numbers.pop(4)
print(my_numbers)
```

```
[1, 2, 3, 4]
```

```
In [34]: out=[x**2 for x in my_numbers]
out
```

```
Out[34]: [1, 4, 9, 16]
```

```
In [43]: my_tuple=tuple(map(lambda x:x**2,my_numbers))
my_tuple
```

```
Out[43]: (1, 4, 9, 16)
```

```
In [46]: my_list2=list(filter(lambda y:y%2==0,my_numbers))
my_list2
```

```
Out[46]: [2, 4]
```

```
In [ ]:
```