Data Science with Python Module 4

Hands On - 2

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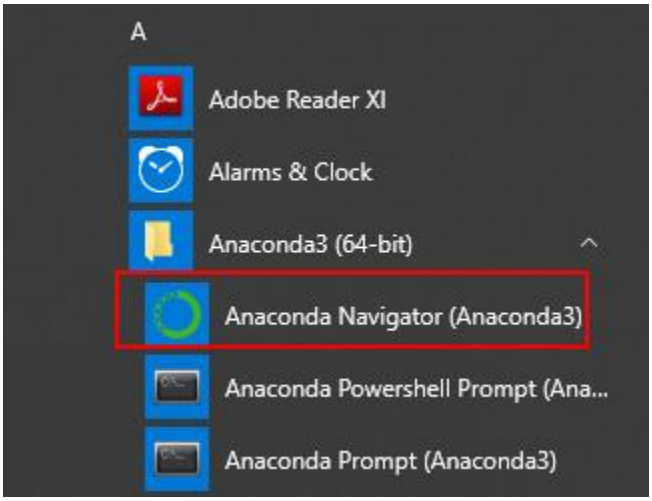
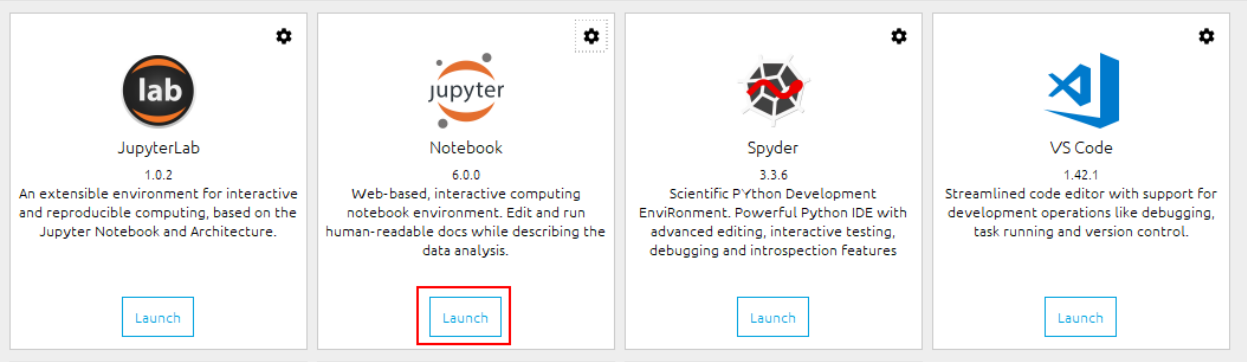
Data Science with Python Module 4: Hands-on: 2

Numpy Operations

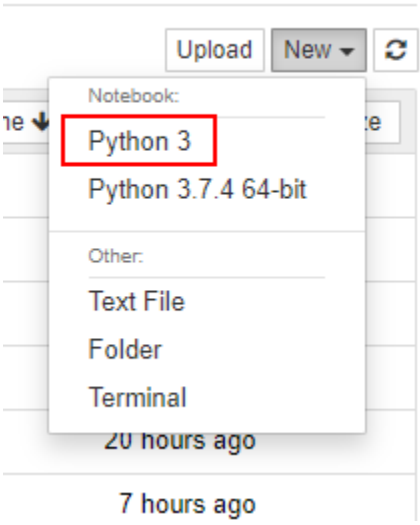
Step 1: Open Anaconda Navigator



Step 2: Click on Launch button under jupyter notebooks.



Step 3: After the notebook opens click on new and Python 3.



Step 4: Import numpy by typing the following code in the notebook and run it by pressing shift + enter

```
In [1]: import numpy as np
```

Step 5: Create np array of zeroes of size (2, 3) run the following code.

```
In [4]: # Create np array of zeroes of size (2, 3)
        np.zeros((2, 3))

Out[4]: array([[0., 0., 0.],
               [0., 0., 0.]])
```

Step 6: Flatten 2D np Array to 1d np array.

```
In [5]: # Flatten 2D np Array to 1d np array from a python list
        arr = np.array([[1, 2, 3], [4, 5, 6]])
        arr.ravel()

Out[5]: array([1, 2, 3, 4, 5, 6])
```

Step 7: Convert 1D np Array to 2d np array from a python list:

```
In [6]: # Convert 1D np Array to 2d np array from a python list
        arr = np.array([1, 2, 3, 4, 5, 6])
        arr.reshape((2, 3))

Out[6]: array([[1, 2, 3],
               [4, 5, 6]])
```

Step 8: Create np array and sort sort

```
In [7]: # Create np array and sort sort
        arr = np.array([1, 3, 2, 6, 5, 4])
        arr.sort()
        arr

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

Step 9: Slice an np array to create another array without the first two elements of the original array

```
In [8]: # Slice an np array to create another array without the first two elements of the original array
        arr[2:]

Out[8]: array([3, 4, 5, 6])
```