Assignment#2

April 17, 2024

Author: Willie M. Bonavente

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

[2]:
```
#  Declare a 2D array
arr = np.array([
                [3, 2, 1],
                [6, 5, 4],
                [9, 8, 7]])
```

[3]:
```
# Step 1: Print the declared two dimensional array
print(arr)
```

```
[[3 2 1]
 [6 5 4]
 [9 8 7]]
```

[4]:
```
# Step 2:Sort the two dimensional array
arr = np.sort(arr)
print(arr)
```

```
[[1 2 3]
 [4 5 6]
 [7 8 9]]
```

[5]:
```
# and flatten it after the sorting
print(arr.flatten())
```

```
[1 2 3 4 5 6 7 8 9]
```

[6]:
```
# Step 3: Reshape to 2D with 3 rows
arr = arr.reshape(3, 3)
```

[7]:
```
# Step 4: After the reshaping print it
print(arr)
```

```
[[1 2 3]
 [4 5 6]
 [7 8 9]]
```

[8]:
```
"""
Step 5: Add to value of 5 to the first row,
        multiply 2 to the 2nd row,
        square the third row.
"""

arr[0] += 5
arr[1] *= 2
arr[2] = np.square(arr[2])
```

[9]:
```
# 6. Print the updated values of the two dimensional table.
print(arr)
```

```
[[ 6  7  8]
 [ 8 10 12]
 [49 64 81]]
```

[10]:
```
# 7.        Get the minimum and maximum values of the two dimensional table.
print("Minimum Value: ",np.min(arr))
print("Maximum Value: ",np.max(arr))
```

```
Minimum Value:  6
Maximum Value:  81
```