

In [4]:

```
import numpy as np
a = np.zeros(3,dtype = int)
print(a)
```

[0 0 0]

In [7]:

```
import numpy as np
a = np.zeros([3,3],dtype = int)
print("matrix 3*3")
print(a)
```

```
matrix 3*3
[[0 0 0]
 [0 0 0]
 [0 0 0]]
```

In [5]:

```
import numpy as np
a = np.ones([3,3],dtype = int)
print(a)
```

```
[[1 1 1]
 [1 1 1]
 [1 1 1]]
```

In [9]:

```
import numpy as np
a = np.array([1, 2, 3, 4, 5])
print(a)
```

[1 2 3 4 5]

In [45]:

```
a = np.array([10,20,30,40,50,60])
for i in a:
    print(i)
```

```
10
20
30
40
50
60
```

In []:

In [21]:

```
import collections
arr = np.array([2,5,2,5,4,5,2,2,4,5,6,6,9,8,7,8,4,5,2,3,7,7,5,4,8,9,5,])
print("array:")
b = collections.Counter(arr)
print(b)
```

```
array:
Counter({5: 7, 2: 5, 4: 4, 8: 3, 7: 3, 6: 2, 9: 2, 3: 1})
```

In [34]:

```
arr = np.array([2,5,5,4,5,4,5,6,6,9,8,7,8,4,5,2,3,7,7,5,4,8,9,5])
np.count_nonzero(arr == 5)
```

Out[34]:

7

In [41]:

```
arr = np.array([2,5,5,4,5,4,5,6,6,9,8,7,8,4,5,2,3,7,7,5,4,8,9,5])  
np.count_nonzero(arr < 4)
```

Out[41]:

3

In [42]:

```
arr = np.array([2,5,4,6,1,3,2,5,1,8,7,9,8,9,7,9])  
np.max(arr)
```

Out[42]:

9

In [43]:

```
arr = np.array([2,5,4,6,1,3,2,5,1,8,7,9,8,9,7,9])  
np.min(arr)
```

Out[43]:

1

In []: