In [3]:

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

```
[[0 0 0]
 [0 0 0]
 [0 0 0]]
```

In [4]:

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

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

In [8]:

```
import numpy as np
a=np.zeros([3,3])
print(a)
```

```
[[0. 0. 0.]
 [0. 0. 0.]
 [0. 0. 0.]]
```

In [15]:

```
import numpy as np
a=np.array([[1,2,3,4],[2,3,45,6],[3,5,7,89]])
for i in a:
    print(i)
```

```
[1 2 3 4]
[ 2  3 45  6]
[ 3  5  7 89]
```

In [24]:

```
import numpy as np
x=[]
a=int(input("enter the size:"))
for i in range(a):
    b=int(input("enter the value:"))
    x.append(b)
print(x)
```

```
enter the size:3
enter the value:1
enter the value:2
enter the value:4
[1, 2, 4]
```

In [45]:

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

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

Out[45]:

```
2
```

In [26]:

```
import collections
x = np.array([1,2,3,4,5,1,2,1,9,1])
print("Original array:")
counter = collections.Counter(x)
print(counter)
```

```
Original array:
Counter({1: 4, 2: 2, 3: 1, 4: 1, 5: 1, 9: 1})
```

In [43]:

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

Out[43]:

```
3
```

In [50]:

```
import collections
a = np.array([1,2,3,4,5,1,2,1,9,1,1])
print(a)
np.count_nonzero(a<=4)
```

```
[1 2 3 4 5 1 2 1 9 1 1]
```

Out[50]:

```
9
```

In [54]:

```
import numpy as np
a= np.array([[2, 3, 0],[4, 1, 6]])
print("Given array:")
print(a)
print(2 in a)
print(0 in a)
print(6 in a)
print(50 in a)
print(10 in a)
```

```
Given array:
[[2 3 0]
 [4 1 6]]
True
True
True
False
False
```

In [57]:

```
import numpy as np
a=np.array([1,2,3,4,5,6,7])
print(max(a))
print(min(a))
```

```
7
1
```