ARRAY CREATION FNS

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

In [2]:
```
a=np.array([1,2,3])
a
```

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

In [3]:
```
print('array a:',a)
```

```
array a: [1 2 3]
```

create an array with space value

In [4]:
```
b=np.arange(0,10,2)
b
```

Out[4]:
```
array([0, 2, 4, 6, 8])
```

In [ ]:
```
print('Array b')
```

In [13]:
```
d=np.zeros((2,3),dtype=int)
```

In [14]:
```
d
```

Out[14]:
```
array([[0, 0, 0],
       [0, 0, 0]])
```

In [11]:
```
print("Array d:",d)
```

```
Array d: [[0. 0. 0.]
 [0. 0. 0.]]
```

In [12]:
```
print("Array d:",dtype=int)
```

```
---------------------------------------------------------------------------
TypeError                                 Traceback (most recent call last)
Cell In[12], line 1
----> 1 print("Array d:",dtype=int)

TypeError: print() got an unexpected keyword argument 'dtype'
```

In [15]:
```
e=np.ones((3,2))
e
```

Out[15]:
```
array([[1., 1.],
       [1., 1.],
       [1., 1.]])
```

In [16]:
```
print('Array e:\n',e)
```

```
Array e:
 [[1. 1.]
 [1. 1.]
 [1. 1.]]
```

In [17]:
```
f=np.eye(4)
```

In [18]:
```
print("identity matrix f:\n",f)
```

```
identity matrix f:
 [[1. 0. 0. 0.]
 [0. 1. 0. 0.]
 [0. 0. 1. 0.]
 [0. 0. 0. 1.]]
```

array manipulation

In [19]:
```
a1=np.array([1,2,3])
a1
```

Out[19]:
```
array([1, 2, 3])
```

In [20]:
```
reshaped=np.reshape(a1,(1,3))
print("Reshaped array:",reshaped)
```

```
Reshaped array: [[1 2 3]]
```

In [21]:
```
reshaped=np.reshape(a1,(3,1))
print("Reshaped array:",reshaped)
```

```
Reshaped array: [[1]
 [2]
 [3]]
```

flatten array

In [23]:
```
f1=np.array([[1,2],[3,4],[5,6]])
flattened=np.ravel(f1)
print('flattened array:',flattened)
```

```
flattened array: [1 2 3 4 5 6]
```

transpose an array

In [25]:
```
e1=np.array([[1,2],[3,4],[5,6]])
tranposed=np.transpose(e1)
print('Transposed array:\n',tranposed)
```

```
Transposed array:
 [[1 3 5]
 [2 4 6]]
```

stack array

In [26]:
```
a2=np.array([1,2])
b2=np.array([3,4])
stacked=np.vstack([a2,b2])
print('stacked array:\n',stacked)
```

```
stacked array:
 [[1 2]
 [3 4]]
```

In [ ]:

In [ ]:

In [ ]:

In [ ]: