In [1]:
```
#Advanced Elements Selection from ndarray----1D
```

In [2]:
```
import numpy as np
```

In [3]:
```
lst=[10,20,30,40,50,60,70,80,90]
a=np.array(lst)
print(a,type(a))
```

```
[10 20 30 40 50 60 70 80 90] <class 'numpy.ndarray'>
```

In [4]:
```
#Step-1: Identity Indices of random Elements (Ex: 10,30 and 90)
ind=[0,2,8]
```

In [5]:
```
#Step-2: Pass the Random Indices values to ndarray object
a[ind]
```

Out[5]:
```
array([10, 30, 90])
```

In [7]:
```
#OR
a[[0,2,8]]
```

Out[7]:
```
array([10, 30, 90])
```

In [8]:
```
#OR
ind=[0,2,8]
x=np.array(ind)
print(x,type(x))
a[x]
```

```
[0 2 8] <class 'numpy.ndarray'>
```

Out[8]:
```
array([10, 30, 90])
```

In [9]:
```
#Advanced Elements Selection from ndarray----2D
```

In [10]:
```
lst=[10,20,30,40,50,60,70,80,90]
a=np.array(lst)
a.shape=(3,3)
print(a,type(a))
```

```
[[10 20 30]
 [40 50 60]
 [70 80 90]] <class 'numpy.ndarray'>
```

In [12]:
```
a[(0,1),(0,2)]
```

Out[12]:
```
array([10, 60])
```

In [13]:
```
a[(0,1,2),(0,1,2)]
```

Out[13]:
```
array([10, 50, 90])
```

In [14]:
```
a[(0,1,2),(2,1,0)]
```

Out[14]:
```
array([30, 50, 70])
```

In [16]:
```
a[(0,0,2,2),(1,2,0,1)]
```

Out[16]:
```
array([20, 30, 70, 80])
```

In [17]:
```
#Advanced Elements Selection from ndarray----nD
```

In [18]:
```
lst=[10,20,30,40,50,60,70,80,90,15,25,35,65,75,85,15,55,65]
a=np.array(lst)
a.shape=(3,2,3)
print(a,type(a))
```

```
[[[10 20 30]
  [40 50 60]]

 [[70 80 90]
  [15 25 35]]

 [[65 75 85]
  [15 55 65]]] <class 'numpy.ndarray'>
```

In [19]:
```
a[(0,1),(0,1),(0,1)]
```

Out[19]:
```
array([10, 25])
```

In [20]:
```
a[(0,2,1),(0,0,1),(0,0,2)]
```

Out[20]:
```
array([10, 65, 35])
```

In [ ]:
```

```