In [4]:
```
import numpy as ny
a=["bmw","honda","RR"]
b=ny.array(a)
print(b)
print(len(b))
print(type(b))
print(b.shape)
```

```
['bmw' 'honda' 'RR']
3
<class 'numpy.ndarray'>
(3,)
```

In [3]:
```
v=b.reshape(1,3)
print(v)
y=b.reshape(3,1)
print(y)
```

```
[['bmw' 'honda' 'RR']]
[['bmw']
 ['honda']
 ['RR']]
```

In [ ]:
```
```

In [8]:
```
e=[1,2,3,4,5]
f=[6,7,8,9,2]
g=[4,8,6,7,1]
h=ny.array([e,f,g])
print(h)
print(type(h))
print(h.shape)
```

```
[[1 2 3 4 5]
 [6 7 8 9 2]
 [4 8 6 7 1]]
<class 'numpy.ndarray'>
(3, 5)
```

In [9]:
```
print(h.reshape(15,1))
print(h.reshape(1,15))
```

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

In [11]:
```
a=[1,2,3,4,5]
b=[7,8,9,0,1]
c=[1,3,4,5,6]
d=[7,7,2,3,4]
```

```
arr5=ny.array([a,b,c,d])
print(arr5)
print(type(arr5))
```

```
[[1 2 3 4 5]
 [7 8 9 0 1]
 [1 3 4 5 6]
 [7 7 2 3 4]]
<class 'numpy.ndarray'>
```

In [12]:
```
print(arr5[:,:])
```

```
[[1 2 3 4 5]
 [7 8 9 0 1]
 [1 3 4 5 6]
 [7 7 2 3 4]]
```

In [13]:
```
print(arr5[2:,1:3])
```

```
[[3 4]
 [7 2]]
```

In [14]:
```
print(arr5[1:,1:])
```

```
[[8 9 0 1]
 [3 4 5 6]
 [7 2 3 4]]
```

In [15]:
```
print(arr5[1:3,:2])
```

```
[[7 8]
 [1 3]]
```

In [17]:
```
j=ny.arange(1,40,2)
print(j)
```

```
[ 1  3  5  7  9 11 13 15 17 19 21 23 25 27 29 31 33 35 37 39]
```

In [22]:
```
t=ny.linspace(1,30,10)
print(t)
```

```
[ 1.          4.22222222  7.44444444 10.66666667 13.88888889 17.11111111
 20.33333333 23.55555556 26.77777778 30.        ]
```

In [23]:
```
t1=[1,2,3,4,5]
t2=ny.array(t1)
print(t2*20)
```

```
[ 20  40  60  80 100]
```

In [25]:
```
print(j%2==0)
```

```
[False False False False False False False False False False False False
 False False False False False False False False]
```

In [26]:
```
ar7=ny.linspace(1,20,10)
print(ar7)
```

```
[ 1.          3.11111111  5.22222222  7.33333333  9.44444444 11.55555556
 13.66666667 15.77777778 17.88888889 20.        ]
```

In [27]:
```
ar7[4:]=10
print(ar7)
```

```
[ 1.          3.11111111  5.22222222  7.33333333 10.         10.
 10.         10.         10.         10.        ]
```

In [28]:
```
ar8=[40,60,33,44,85,92]
print(ar8)
```

```
[40, 60, 33, 44, 85, 92]
```

In [29]:
```
print(ny.random.rand(3,3))
```

```
[[0.64335092 0.72891904 0.46143919]
 [0.45457593 0.58710104 0.26499105]
 [0.77895984 0.12978855 0.93486905]]
```

In [30]:
```
print(ny.random.rand(3,3))
```

```
[[0.48891015 0.43207695 0.62735989]
 [0.6884088  0.59873119 0.71627549]
 [0.57480728 0.51390384 0.53054933]]
```

In [31]:
```
print(ny.random.rand(3,4))
```

```
[[0.49844483 0.89256576 0.53057847 0.85977392]
 [0.75959    0.09870823 0.59767309 0.73750728]
 [0.36156195 0.90717349 0.48612902 0.15671472]]
```

In [ ]:
```

```