Accessing

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

In [2]:
```
x = np.array([1, 2, 3, 4, 5,6])
print(x)
```

```
[1 2 3 4 5 6]
```

accessing

In [4]:
```
print(x[0:2])
print(x[2])
print(x[-1])
print(x[-4:-1])
```

```
[1 2]
3
6
[3 4 5]
```

modifying

In [5]:
```
x[3] = 20
print(x)
```

```
[ 1  2  3 20  5  6]
```

rank 2

Create PDF in your applications with the Pdfcrowd HTML to PDF API PDFCROWD

In [12]:
```
X = np.array([[1,2,3],[4,5,6],[7,8,9]])
print(X)
```

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

accessing

In [9]:
```
print(X[0,0])
print(X[0,0:2])
```

```
1
[1 2]
```

modifying

In [13]:
```
X[0,0] = 20
X[1,0:2] = [21,30]
print(X)
```

```
[[20  2  3]
 [21 30  6]
 [ 7  8  9]]
```

delete(ndarray, elements, axis) axis is not required in rank 1

axis = 0 is used to select rows, and axis = 1 is used to select columns.

Create PDF in your applications with the Pdfcrowd HTML to PDF API PDFCROWD

In [2]:
```
x = np.array([1, 2, 3, 4, 5])
y = np.array([[1,2,3],[4,5,6],[7,8,9]])
```

In [3]:
```
#delete index 0 and 4
x = np.delete(x, [0,4])
print(x)
```

```
[2 3 4]
```

In [18]:
```
w = np.delete(y, 0, axis=0)
print(w)
```

```
[[4 5 6]
 [7 8 9]]
```

In [20]:
```
v = np.delete(y, [0,2], axis=1)
print(v)
```

```
[[2]
 [5]
 [8]]
```

np.append(ndarray, elements, axis) , axis is excluded in rank 1

In [4]:
```
x = np.array([1, 2, 3, 4, 5])
Y = np.array([[1,2,3],[4,5,6]])
```

append in rank 1 x

In [5]:
```
x = np.append(x, 6)
print(x)
```

```
[1 2 3 4 5 6]
```

Create PDF in your applications with the Pdfcrowd HTML to PDF API PDFCROWD

append in rank 2 y

In [6]:
```
x = np.append(x, [7,8])
print(x)
```

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

In [7]:
```
v = np.append(Y, [[7,8,9]], axis=0)
print(v)
```

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

In [8]:
```
q = np.append(Y,[[9],[10]], axis=1)
print(q)
```

```
[[ 1  2  3  9]
 [ 4  5  6 10]]
```

.insert(ndarray, index, elements, axis)

In [10]:
```
x = np.array([1, 2, 5, 6, 7])
Y = np.array([[1,2,3],[7,8,9]])
```

In [11]:
```
# We insert the integer 3 and 4 between 2 and 5 in x.
x = np.insert(x,2,[3,4])
print(x)
```

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

In [12]:
```
# We insert a row between the first and last row of y
w = np.insert(Y,1,[4,5,6],axis=0)
print(w)
```

Create PDF in your applications with the Pdfcrowd HTML to PDF API PDFCROWD

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

.vstack() .hstack()

In [14]:
```
x = np.array([1,2])
Y = np.array([[3,4],[5,6]])
```

In [15]:
```
#We stack x on top of Y
z = np.vstack((x,Y))
print(z)
```

```
[[1 2]
 [3 4]
 [5 6]]
```

In [16]:
```
# We stack x on the right of Y. We need to reshape x in order to stack
 it on the right of Y.
w = np.hstack((Y,x.reshape(2,1)))
print(w)
```

```
[[3 4 1]
 [5 6 2]]
```

Create PDF in your applications with the Pdfcrowd HTML to PDF API PDFCROWD