Array

1.array is an object that provide a mechaanism for storing several data in one identifier.array is used to store group of data in same data type 2.In python size of array is not fixed array can increase or decrease their size dynamically 3.array is not same as list 4.array use less sapace than list

Types of array

2 types 1.one dimensional 2.multi dim, but python not support 2d but by the help of numpy we use it

In [2]:
```
import array
```

In [6]:
```
arr = array.array('i', [1, 2, 3])
arr
```

Out[6]:
```
array('i', [1, 2, 3])
```

In [10]:
```
##append,insert
arr = array.array('i', [1, 2, 3])

print ("The new created array is : ",end=" ")
for i in range (0, 3):
    print (arr[i], end=" ")
print("\n")

arr.append(4)                                   #append
print("The appended array is : ", end="")
for i in range (0, 4):
    print (arr[i], end=" ")
print("\n")

arr.insert(2, 5)                                  #insert
print ("The array after insertion is : ", end="")
for i in range (0, 5):
    print (arr[i], end=" ")
```

```
The new created array is :  1 2 3

The appended array is : 1 2 3 4

The array after insertion is : 1 2 5 3 4
```

In [15]:
```
#pop,remove
arr= array.array('i',[7, 2, 3, 1, 5])

print ("The new created array is : ",end="")
for i in range (0,5):
    print (arr[i],end=" ")
print ("\n")

print ("The popped element is : ",end="")
print (arr.pop(2))                                #pop


print ("The array after popping is : ",end="")
for i in range (0,4):
    print (arr[i],end=" ")
print("\n")


arr.remove(7)                                   #remove
print ("The array after removing is : ",end="")
for i in range (0,3):
    print (arr[i],end=" ")
```

```
The new created array is : 7 2 3 1 5

The popped element is : 3
The array after popping is : 7 2 1 5

The array after removing is : 2 1 5
```

In [20]:

```python
#index,reverse
arr= array.array('i',[1, 2, 3, 1, 2, 5])

print ("The new created array is : ",end="")
for i in range (0,6):
    print (arr[i],end=" ")
print ("\n")


print ("The index of 1st occurrence of 3 is : ",end="")
print (arr.index(3))                                    #index

arr.reverse()                                           #reverse
print ("The array after reversing is : ",end="")
for i in range (0,6):
    print (arr[i],end=" ")
```

```
The new created array is : 1 2 3 1 2 5

The index of 1st occurrence of 3 is : 2
The array after reversing is : 5 2 1 3 2 1
```