Sorting

Bubble Sort

In [5]:
```python
import numpy as np
```

In [6]:
```python
Array =np.array([100,99,1,3,2,4,25,64,82,-9,0])
n=len(Array)
```

In [7]:
```python
for i in range(0,n-1):
    for j in range(0,n-1-i):
        if(Array[j]>Array[j+1]):
            temp=Array[j]
            Array[j]=Array[j+1]
            Array[j+1]=temp

Array
```

Out[7]: array([-9,   0,   1,   2,   3,   4, 25, 64, 82, 99, 100])

Selection Sort

In [8]:
```python
Numbers=np.array([10,9,8,7,6,5])
for i in range(0,len(Numbers)-1):
    index=i
    for j in range(i+1,len(Numbers)):
        if Numbers[j]<Numbers[index]:
            index=j
    if Numbers[i] != Numbers[index]:
        temp=Numbers[i]
        Numbers[i]=Numbers[index]
        Numbers[index]=temp


print(Numbers)
```

[5 6 7 8 9 10]

Insertion Sort

In [10]:
```python
Numbers=np.array([1,67,43,11,58,6])
for i in range(1,len(Numbers)):
    temp=Numbers[i]    #8
    index=i            #2
    while(index !=0 and Numbers[index-1]>temp):
        Numbers[index]=Numbers[index-1]#
        index-=1

    Numbers[index]=temp

print(Numbers)
```

[1 6 11 43 58 67]