In [2]:

```
#Program to find the largest number in a list.
a=[]
n=int(input("Enter number of elements:"))
for i in range(1,n+1):
    b=int(input("Enter element:"))
    a.append(b)
a.sort()
print("Largest element is:",a[n-1])
```

```
Enter number of elements:12
Enter element:2
Enter element:1
Enter element:2
Enter element:222
Enter element:3
Enter element:5
Enter element:4
Enter element:5
Enter element:5
Enter element:5
Enter element:6
Enter element:8
Largest element is: 222
```

In [3]:

```
#Python Program to put the even and odd elements in a list into two different lists.
a=[]
n=int(input("Enter number of elements:"))
for i in range(1,n+1):
    b=int(input("Enter element:"))
    a.append(b)
even=[]
odd=[]
for j in a:
    if(j%2==0):
        even.append(j)
    else:
        odd.append(j)
print("The even list",even)
print("The odd list",odd)
```

```
Enter number of elements:1
Enter element:2
The even list [2]
The odd list []
```

In [4]:

```
#Python Program to merge two lists and sort it.
a=[]
c=[]
n1=int(input("Enter number of elements:"))
for i in range(1,n1+1):
    b=int(input("Enter element:"))
    a.append(b)
n2=int(input("Enter number of elements:"))
for i in range(1,n2+1):
    d=int(input("Enter element:"))
    c.append(d)
new=a+c
new.sort()

print("Sorted list is:",new)
```

```
Enter number of elements:1
Enter element:2
Enter number of elements:1
Enter element:3
Sorted list is: [2, 3]
```

In [5]:

```
#Python Program to sort the list according to the second element in the sublist.
a=[['A',34],['B',21],['C',26],['E',29]]
for i in range(0,len(a)):
    for j in range(i+1,len(a)):
        if(a[i][1]>a[j][1]):
            temp=a[j]
            a[j]=a[i]
            a[i]=temp
print(a)
```

```
[['B', 21], ['C', 26], ['E', 29], ['A', 34]]
```

In [6]:

```
#Python Program to find the second largest number in a list using bubble sort.
a=[]
n=int(input("Enter number of elements:"))
for i in range(1,n+1):
    b=int(input("Enter element:"))
    a.append(b)
for i in range(0,len(a)):
    for j in range(0,len(a)-i-1):
        if(a[j]>a[j+1]):
            temp=a[j]
            a[j]=a[j+1]
            a[j+1]=temp
print('Second largest number is:',a[n-2])
```

```
Enter number of elements:1
Enter element:2
Second largest number is: 2
```

In [7]:

```
#Program to create a list of tuples with the first element as the number and the second
#element as the square of the number.
l_range=int(input("Enter the lower range:"))
u_range=int(input("Enter the upper range:"))
a=[(x,x**2) for x in range(l_range,u_range+1)]
print(a)
```

```
Enter the lower range:2
Enter the upper range:3
[(2, 4), (3, 9)]
```

In [8]:

```
#Python Program to generate random numbers from 1 to 20 and append them to the list.
import random
a=[]
n=int(input("Enter number of elements:"))
for j in range(n):
    a.append(random.randint(1,20))
print('Randomised list is: ',a)
```

```
Enter number of elements:1
Randomised list is:  [5]
```

In [10]:

```
#Write python program to have a list of words to sort them from longest to shortest usi
#of tuples
txt = 'but soft what light in yonder window breaks'
words = txt.split()
t = list()
for word in words:
    t.append((len(word), word))
t.sort(reverse=True)
res = list()
for length, word in t:
    res.append(word)
print(res)
```

```
['yonder', 'window', 'breaks', 'light', 'what', 'soft', 'but', 'in']
```

In [11]:

```
#Python program that assigns variables
# Create packed tuple.
pair = ("dog", "cat")
# Unpack tuple.
(key, value) = pair

# Display unpacked variables.
print(key)
print(value)
```

```
dog
cat
```

In [12]:

```
#Python program that searches tuples
pair = ("dog", "cat")
# Search for a value.
if "cat" in pair:
    print("Cat found")
# Search for a value not present.
if "bird" not in pair:
    print("Bird not found")
```

```
Cat found
Bird not found
```

In [ ]:

```

```