In [1]:
```python
#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:4
Enter element:12
Enter element:32
Enter element:4
Enter element:31
Largest element is: 32
```

In [3]:
```python
#Python Program to put the even and odd elements in a list into two different l
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:5
Enter element:22
Enter element:31
Enter element:54
Enter element:21
Enter element:67
The even list [22, 54]
The odd list [31, 21, 67]
```

In [4]:
```python
#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:5
Enter element:21
Enter element:43
```

In [7]:
```python
#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 [9]:
```python
#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:5
Enter element:23
Enter element:21
Enter element:65
Enter element:32
Enter element:66
Second largest number is: 65
```

In [10]:
```python
#Program to create a list of tuples with the first element as the number and th
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:10
[(2, 4), (3, 9), (4, 16), (5, 25), (6, 36), (7, 49), (8, 64), (9, 81), (10, 10
0)]
```

In [11]:
```python
#Python Program to generate random numbers from 1 to 20 and append them to the
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:8
Randomised list is:  [17, 8, 17, 8, 4, 5, 17, 3]
```

In [12]:
```python
#Write python program to have a list of words to sort them from longest to shor
txt = 'but soft what light in yonder window breaks'
words = txt.split()
t = list()
```

```python
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 [13]:
```python
#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 [14]:
```python
#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
```