Que:-1 Write a Python Program to find sum of elements in a list ?

```
In [6]:    1  #solution:
           2
           3  def number(a):
           4      sum = 0
           5      for i in a:
           6          sum = sum + i
           7      print("The addition of elements in list is:-",sum)
           8  a = [25,50,100,150,200]
           9  number(a)
```

The addition of elements in list is:- 525

```
In [4]:    1  #solution:-
           2  # by using sum()
           3
           4  def num(a):
           5      b = sum(a)
           6      print(b)
           7  a = [25,50,100,150,200]
           8  num(a)
```

525

Que:2 Write a Python Program to multiply all numbers in the list ?

```
In [7]:    1  #solution:-
           2
           3  def mul(a):
           4      num = 1
           5      for i in a:
           6          num = num*i
           7      print("The product of elements is-",num)
           8  a = [5,2,3,6]
           9  mul(a)
```

The product of elements is- 180

Que:-3 Write a Python Program to find smallest number in the list ?

```
In [21]:   1  #solution:-
           2
           3  def small_num(a):
           4      b = a[0]
           5      for i in a:
           6          if i < b:
           7              b = i
           8      print("The smallest number in the list is:-",b)
           9  a = [5,2,3,6,1]
          10  small_num(a)
```

The smallest number in the list is:- 1

Que:-4 Write a Python Program to find largest number in the list ?

In [20]:
```python
#solution:-

def large_num(a):
    b = a[0]
    for i in a:
        if i > b:
            b = i
    print("The largest number in the list is:-",b)
a = [5,2,3,6,1]
large_num(a)
```

The largest number in the list is:- 6

Que:-5 Write a Python Program to find second largest number in the list ?

In [1]:
```python
#solution:-

nums = []
print("Enter 5 Elements (Numbers) for List: ")
for i in range(5):
    nums.append(int(input()))

large = nums[0]
for i in range(5):
    if large<nums[i]:
        large = nums[i]

secondLarge = nums[0]
for i in range(5):
    if secondLarge<nums[i]:
        if nums[i]!=large:
            secondLarge=nums[i]

print("Second Largest Number is:-",secondLarge)

```

Enter 5 Elements (Numbers) for List:
5
2
6
3
7
Second Largest Number is:- 6

Que:-6 Write a Python Program to find N largest elements in the list ?

```python
In [7]:   1  #solution:-
          2
          3  def list1(a):
          4      list2 = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]
          5      print(f"The {a} largest element in the {list2} is {sorted(list2,reverse=True)[0:a]}")
          6
          7  a = int(input("Enter the value:-"))
          8  list1(a)
```

```
Enter the value:-5
The 5 largest element in the [1, 2, 3, 4, 5, 6, 7, 8, 9, 10] is [10, 9, 8, 7, 6]
```

Que:-7 Write a Python Program to find even numbers in the list ?

```python
In [12]:   1  #solution:-
           2
           3  def even(start=0,end=50):
           4      list1=[]
           5      for i in range(start,end+1):
           6          if i%2 == 0:
           7              list1.append(i)
           8      print(f"The even number from range {start} to {end} is {list1}")
           9  even(0,50)
          10
```

```
The even number from range 0 to 50 is [0, 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50]
```

Que:-8 Write a Python Program to find odd numbers in the list ?

```python
In [14]:   1  def odd(start,end):
           2      list1 = []
           3      for i in range(start,end):
           4          if i % 2 != 0:
           5              list1.append(i)
           6      print(f"The odd number from range {start} to {end} is {list1}")
           7  odd(0,30)
```

```
The odd number from range 0 to 30 is [1, 3, 5, 7, 9, 11, 13, 15, 17, 19, 21, 23, 25, 27, 29]
```

Que:-9 Write a Python Program to remove empty list from list ?

In [19]:
```python
#solution:-

def num(a):

    for i in a:
        if i == ([]):
            a.remove (i)
    print(a)
a = [1,2,3,4,[],5,6,7]
num(a)
```

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

Que:-10 Write a Python Program to Cloning or Copying a list ?

In [22]:
```python
#solution:-

import copy

def clone():
    in_list = eval(input("Enter a list:"))
    print(in_list, id(in_list))
    cloned_list = in_list.copy()
    print(cloned_list, id(cloned_list))

clone()
```

```
Enter a list:[5,6,7,8,10,15,17]
[5, 6, 7, 8, 10, 15, 17] 2511923475840
[5, 6, 7, 8, 10, 15, 17] 2511923950400
```

Que:-11 Write a Python Program to count occurences of an element in a list ?

In [32]:
```python
#solution:-

def list1(a):
    for i in a:
        b = a.count(i)
        print(f"The count of {i} is {b}")
a = [5,9,5,90,1,90,1,16,25]
list1(a)
```

```
The count of 5 is 2
The count of 9 is 1
The count of 5 is 2
The count of 90 is 2
The count of 1 is 2
The count of 90 is 2
The count of 1 is 2
The count of 16 is 1
The count of 25 is 1
```

In [33]:

```python
def list1(a):
    b = int(input("Enter the number for count:-"))
    count = 0
    if b in a:
        for i in a:
            if i == b:
                count = count+1
    print(f"The count of {b} is {count}")
a = [5,9,5,90,1,90,1,16,25]
list1(a)
```

```
Enter the number for count:-5
The count of 5 is 2
```