In [ ]:
```
TASK 3
```

In [106]:
```
# 1. Write a Python program to sum all the items in a list.

list1=[1,11,2,22,3,33,4,44,5,55]
i=0
total=0
while i<len(list1):
    total=total+list1[i]
    i+=1
print("sum of all items in the list is", total)
```

```
sum of all items in the list is 180
```

In [32]:
```
# 2 Write a Python program to get the largest number from a list.

list=[1,2,4,6,7,8,9,10,12,32]
a=list[0]
for i in list:
    if i>a:
        a=i
print("sum of all elements in the list:",a)
```

```
sum of all elements in the list: 32
```

In [58]:
```
list=[21,32,43,54,65,76,87,98]
list.sort()
print("display of largest number:",list[-1])
```

```
display of largest number: 98
```

In [65]:
```
# 3 Write a Python program to count the number of strings from a given list of strings. The string length is 2 or more and the f

list=["sort","clear","behind","bang","thor","enhance.,876"]
len(list)
```

Out[65]: 6

In [108]:
```
# 4 Write a Python program to remove duplicates from a list.

list1=[11,77,55,77,2,5,4,3,2,6,6]
print("the list is:", list1)
result=[]
for i in list1:
    if i not in result:
        result.append(i)
print("The list after remove duplicates:", result)
```

```
the list is: [11, 77, 55, 77, 2, 5, 4, 3, 2, 6, 6]
The list after remove duplicates: [11, 77, 55, 2, 5, 4, 3, 6]
```

In [13]:
```
# 5  Write a Python program to check if a list is empty or not.

thislist=["apple","orange",12,1.2,"c","v","cherry"]
if thislist:
    print("list is not empty")
else:
    print("list is empty")
```

```
list is not empty
```

In [10]:
```
thislist=[]
if i in thislist:
    print("list is not empty")
else:
    print("list is empty")
```

```
list is empty
```

In [19]:
```
# 6. Write a Python program to filter the list if the length of the character is < 4:

list=['abc', 'xyz', 'aba', '1221']
newlist=[]
for i in list:
    if len(i)<4:
        newlist.append(i)
print(newlist)
```

```
['abc', 'xyz', 'aba']
```

In [25]:
```
# 7.Write a Python program to find the second largest number in a list.

l1=[10,20,30,40,50,70,80,90]
l1.sort()
print("second largest element is:",l1[-2])
```

```
second largest element is: 80
```

In [27]:
```
# 8 . Write a Python program to reverse a list at a specific location.

cars=["ford","BMW","volvo"]
cars.sort(reverse=True)
cars
```

Out[27]:
```
['volvo', 'ford', 'BMW']
```

In [38]:
```
l=[1,2,3,4,5]
l[3::-1]
```

Out[38]:
```
[4, 3, 2, 1]
```

In [44]:
```
# 9. Write a Python program to check if a list is a palindrome or not. Return true otherwise false.


string=input(("Enter a string:"))
if(string==string[::-1]):
      print("The string is a palindrome:",True)
else:
      print("Not a palindrome:",False)
```

```
Enter a string:madam
The string is a palindrome: True
```

In [60]:
```
# 10. Write a Python a program to find the union and intersection of two lists.

#union
lst1=[12,41,2,4,6,7,8]
lst2=[9,8,25,64,7,2,4]
newlst1=lst1+lst2
newlst2=[]
print("union in the given list is",newlst1)
for i in lst1:
    for j in lst2:
        if i==j:
            newlst2.append(i)
print("intersection of the given list is",newlst2)
```

```
union in the given list is [12, 41, 2, 4, 6, 7, 8, 9, 8, 25, 64, 7, 2, 4]
intersection of the given list is [2, 4, 7, 8]
```

In [72]:
```
# 11.Write a Python script to sort (ascending and descending) a dictionary by value

my_dict={"11":"b","10":"a","12":"c"}
sorted_dict=sorted([(value,key)for(key,value)in my_dict.items()])
print("sorted dictionary is:")
print(sorted_dict)
```

```
sorted dictionary is:
[('a', '10'), ('b', '11'), ('c', '12')]
```

In [79]:
```
12. Write a Python script to check whether a given key already exists in a dictionary.

mydict={"girls":10,"boys":15,"teachers":7}
if "boys" in mydict:
    print("yes")
```

```
yes
```

In [81]:
```
mydict={"brand":"ford","model":"mustang","year":1964}
if "model" in mydict:
     print("yes")
```

```
yes
```

In [82]:
```
# 13.Write a Python program to sum all the values in a dictionary.

mydict={"girls":10,"boys":15,"teachers":7}
print(sum(mydict.values()))
```

```
32
```

In [83]:
```
# 14.Write a Python program to create a dictionary with a number and its corresponding square from 1 to input number. And also ch

num=int(input("input :" ))
{i:i**2 for i in range (1,num+1) if num<10}
```

```
input :6
```

Out[83]:
```
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36}
```

In [87]:
```
num=int(input("Input a number "))
d = dict()

for i in range(1,num+1):
    d[i]=i*i

print(d)
```

```
Input a number 10
{1: 1, 2: 4, 3: 9, 4: 16, 5: 25, 6: 36, 7: 49, 8: 64, 9: 81, 10: 100}
```

In [88]:
```
# 15.Write a Python program to sort a given dictionary by key.

mydict={"brand":"ford","model":"mustang","year":1964}
for i in sorted(mydict.keys()):
    print(i)
```

```
brand
model
year
```

In [90]:
```
# 16.  Write a Python program to create a dictionary from a string.

mystring="learnpython"
{i:mystring.count(i) for i in mystring}
```

Out[90]:
```
{'l': 1,
 'e': 1,
 'a': 1,
 'r': 1,
 'n': 2,
 'p': 1,
 'y': 1,
 't': 1,
 'h': 1,
 'o': 1}
```

In [95]:
```
str=input("enter a string: ")
dic={}
for i in str:
    if i in dic:
        dic[i]+=1
    else:
        dic[i]=1
print(dic)
```

```
enter a string: linitha
{'l': 1, 'i': 2, 'n': 1, 't': 1, 'h': 1, 'a': 1}
```

In [103]:
```
# 17. Write a Python program to get the top three items in a shop.

my_dict =  {'item1': 45.50, 'item2':35, 'item3': 41.30, 'item4':55, 'item5': 24}
result = dict(sorted(my_dict.items(), key=lambda x: x[1], reverse=True)[:3])
print(result)
```

```
{'item4': 55, 'item1': 45.5, 'item3': 41.3}
```