Q1: Write a Python program to find the second smallest element in a list

In [4]:
```
list1=[1,100,55,22,45,85,99,2]

sort=sorted(list1)
print("Sorted List = ",sort)
print("Second Smallest Number = ",sort[1])
```

```
Sorted List =  [1, 2, 22, 45, 55, 85, 99, 100]
Second Smallest Number =  2
```

Q2: Write a Python program to merge two dictionaries and combine the values of common keys.

In [32]:
```
dict1={"name":"ajith","age":26,"place":"palakkad"}
dict2={"name":"ajith","email":"ajith@gmail.com","place":"palakkad"}
duplicate=[]

for i,j in dict1.items():
    for a,b in dict2.items():
        if i==a:
            duplicate.append(i)
print("Common Keys = ",duplicate)



dict1.update(dict2)
print("Merged Two Dictionaries = ",dict1)
```

```
Common Keys =  ['name', 'place']
Merged Two Dictionaries =  {'name': 'ajith', 'age': 26, 'place': 'palakkad', 'email': 'ajith@gmail.com'}
```

Q3: Write a Python program to find the top N elements with the highest values in a dictionary.

In [56]:
```
#method 1

mark={"ajith":95,"princy":85,"Anandu":45,"amal":89}

print("Mark List = ",mark)
high_mark=max(mark.values())
print("Highest Values In Mark Dictionary = ",high_mark)
```

```
Mark List =  {'ajith': 95, 'princy': 85, 'Anandu': 45, 'amal': 89}
Highest Values In Mark Dictionary =  95
```

In [54]:
```
#Method 2

high_mark=[]
mark={"ajith":95,"princy":85,"Anandu":45,"amal":89}

for i in mark.values():
    high_mark.append(i)
sort=sorted(high_mark)
print(mark)
print("High Value in The List = ",sort[-1])
```

```
{'ajith': 95, 'princy': 85, 'Anandu': 45, 'amal': 89}
High Value in The List =  95
```

Q4: Write a Python program to check if two lists have any common elements.

In [61]:
```
names1=["ajith","abhi","sreejith","akshay","soumya"]
names2=["kathik","surya","ajith","vipin","abhi","soumya"]

common_names=[]
for i in names1:
    for j in names2:
        if i==j:
            common_names.append(i)
print("Common Names In names1 and names=  ", common_names)
```

```
Common Names In names1 and names=   ['ajith', 'abhi', 'soumya']
```

Q5: Write a Python program to find the intersection of two lists.

In [64]:
```
color1=["red","black","blue","yellow","maroon"]
color2=["green","megenta","blue","violet","black"]


x=set(color1)
y=set(color2)

z=x.intersection(y)

print("common Values in Color1 and color 2= ",list(z))
```

```
common Values in Color1 and color 2=  ['black', 'blue']
```

Q6: Write a Python program to remove empty dictionaries from a list.

In [126…
```
bikes=[{},{"hero":"honda"},{},{"yamaha":"r15"}]



for i in bikes:
    if bool(i)==True:
        pass
    else:
        bikes.remove(i)
print("After Removing Empty Dictionaries = ",bikes)
```

```
After Removing Empty Dictionaries =  [{'hero': 'honda'}, {'yamaha': 'r15'}]
```

Q7: Write a Python program to count the number of occurrences of each word in a given sentence.

In [171…
```
# method 1
sentence=input("Enter the Sentence = ")

li=[]
li2=[]

li3=[]
li4=[]
split=sentence.split()

for i in split:
    x=split.count(i)
    if x==1:
        li.append(i)
        li2.append(x)
abc=zip(li,li2)

print("One Time repeat word in the senetence =  ",dict(abc))


for j in split:
    y=split.count(j)
    if y==2:
        li3.append(j)
        li4.append(y)
xyz=zip(li3,li4)

print("Two  Time Reapeat  word in the senetence =  ",dict(xyz))
```

```
Enter the Sentence = ajith your a good programmer ajith your a good liar
One Time repeat word in the senetence =   {'programmer': 1, 'liar': 1}
Two  Time Reapeat  word in the senetence =   {'ajith': 2, 'your': 2, 'a': 2, 'good': 2}
```

In [181…
```
# method 2

sentence=input("Enter the Sentence = ")
split=sentence.split()
li=[]
li2=[]
for i in split:
    li.append(i)
    x=split.count(i)
    li2.append(x)
abc=zip(li,li2)
print(dict(abc))
```

```
Enter the Sentence = ajith your a good programmer ajith your a good liar
{'ajith': 2, 'your': 2, 'a': 2, 'good': 2, 'programmer': 1, 'liar': 1}
```

Q8:Write a Python program to check if two dictionaries are equal (have the same key-value pairs).

In [115…
```
details1={"name":"Neymar","age":32,"country":"brazil"}

details2={"name":"Cristiano Ronaldo","age":37,"Country":"Portugal"}

x=details1.items()
y=details2.items()

if x==y:
    print("Two Dictionaries are Equal  ")
else:
    print("Two Dictionaries are Not Equal")
```

```
Two Dictionaries are Not Equal
```

In [ ]:
```

```