Assignment- 7

1. Write a python function that returns the index of the smallest element in a list of integers. If the number of such elements is greater than 1, return the smallest index. Use the following function header:
def indexOfSmallestElement(lst):

```
list1=[]
print("Enter 10 elements of your choice")
for i in range(10):
    numb=int(input())
    list1.append(numb)

if len(list1)<1:
    smallindex=list1[0]
    print("And the smallest index of the smallest number is: ",
smallindex+1)

def indexofsmallestelement(list1):

    minpos = list1.index(min(list1))

    return minpos + 1
print("The list of indices of smallest number position in the list
provided is: ", indexofsmallestelement(list1))
```

Output:-

```
Enter 10 elements of your choice
10
9
0
1
2
3
4
5
8
9
The list of indices of smallest number position in the list provided is:
3
```

==========

2. Write the python function mostCommonName, that takes a list of names (such as ["Ja ne", "Aaron", "Cindy", "Aaron"], and returns the most common name in this list (in this case, "Aaron"). If there is more than one such name, return a set of the most common names. So mostCommonName(["Jane", "Aaron", "Jane", "Cindy", "Aaron"]) returns the set {"Aaron", "Jane"}. If the set is empty, return None. Also, treat names case sensitive, so "Jane" and "JANE" are different names.

```
from collections import Counter

#names=['Deepak','Reema','John','Deepak','Munna','Reema','Deepak','Amit','
John','Reema']


print("Enter 10 names of your choice")
names=[]
for i in range(10):
    name=str(input())
    names.append(name)

test=dict(Counter(names))
d = dict((k, v) for k, v in test.items() if v > 1)
resultList = list(d.keys())
print (resultList)
```

Output:-

```
Enter 10 names of your choice
Deepak
Reema
John
Deepak
Munna
Reema
Deepak
Amit
John
Reema

['Deepak', 'Reema', 'John']

##{'Deepak': 3, 'Reema': 3, 'John': 2}
```

==========

3. Write the python function isPalindromicList(a) that takes a list and returns True if it is the same forwards as backwards and False otherwise.

```
print("Enter 10 elements of your choice")
ele=[]
for i in range(10):
    x=input()
    ele.append(x)
print(ele)
def isPalindromicList(a):
    if ele==ele[::-1]:
        palindrom=True
    else:
        palindrom=False
    return palindrom
isPalindromicList(ele)
```

Output:-

```
Enter 10 elements of your choice
1
2
3
4
5
5
4
3
2
1
['1', '2', '3', '4', '5', '5', '4', '3', '2', '1']
True
----------------------------------------
```

Enter 10 elements of your choice
1
22
33
44
55
66

77
88
99
10
['1', '22', '33', '44', '55', '66', '77', '88', '99', '10']
False

==========