

Assignment_7 (1)

November 19, 2022

- 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

```
[ ]: def indexOfSmallestElement(L):
    smallestIndex = 0
    smallestElement = L[0]
    for i in range(1, len(L)):
        if L[i] < smallestElement:
            smallestElement = L[i]
            smallestIndex = i

    return smallestIndex

L = list(map(int, input('Enter list of numbers: ').split()))
smallestIndex = indexOfSmallestElement(L)

print('Smallest index is:', smallestIndex)
```

```
Enter list of numbers: 1 2 3 4 5
Smallest index is: 0
```

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

```
[ ]: def isPalindrome(str):
    for i in range(0, int(len(str)/2)):
        if str[i] != str[len(str)-i-1]:
            return False
    return True

s = "madam"
```

```
ans = isPalindrome(s)

if (ans):
    print("It is a Palindrome")
else:
    print("Sorry! Try again")
```

It is a Palindrome

3 Write the python function `mostCommonName`, that takes a list of names (such as `["Jane", "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.

```
[ ]: def most_common_name(name_list):

    max_frequency = 0
    common_name = name_list[0]

    for name in name_list:
        frequency = name_list.count(name)
        if frequency > max_frequency:
            max_frequency = frequency
            common_name = name

    return common_name
print(most_common_name(["Jane", "Aaron", "Jane", "Cindy", "Aaron"]))
```

Aaron