1. def sumofList():

in\_ele = int(input('Enter the No of Entries in a List: '))

in\_list = []

for itr in range(in\_ele):

in\_list.append(int(input('Enter a element: ')))

print(f'Sum of Elements: {sum(in\_list)}')

sumofList()

Output:

Enter the No of Entries in a List: 5

Enter a element: 1

Enter a element: 2

Enter a element: 3

Enter a element: 4

Enter a element: 5

Sum of Elements: 15

1. def mulofList():

in\_ele = int(input('Enter the No of Entries in a List: '))

in\_list = []

mul = 1

for itr in range(in\_ele):

in\_list.append(int(input('Enter a element: ')))

for ele in in\_list:

mul = mul \* ele

print(mul)

mulofList()

Output:

Enter the No of Entries in a List: 5

Enter a element: 1

Enter a element: 2

Enter a element: 3

Enter a element: 4

Enter a element: 5

120

1. def smallEleInList():

in\_ele = int(input('Enter the No of elements in a list: '))

in\_list = []

for ele in range(in\_ele):

in\_list.append(int(input('Enter a Element: ')))

print(f'The Smallest Element in {in\_list} is {sorted(in\_list)[0]}')

smallEleInList()

Output:

Enter the No of elements in a list: 5

Enter a Element: 34

Enter a Element: 56

Enter a Element: 67

Enter a Element: 87

Enter a Element: 12

The Smallest Element in [34, 56, 67, 87, 12] is 12

1. def largestEleInList():

in\_ele = int(input('Enter the No of elements in a list: '))

in\_list = []

for ele in range(in\_ele):

in\_list.append(int(input('Enter a Element: ')))

print(f'The Largest Element in {in\_list} is {sorted(in\_list, reverse=True)[0]}')

largestEleInList()

Output:

Enter the No of elements in a list: 12

Enter a Element: 10

Enter a Element: 98

Enter a Element: 12

Enter a Element: 14

Enter a Element: 15

Enter a Element: 65

Enter a Element: 76

Enter a Element: 87

Enter a Element: 34

Enter a Element: 56

Enter a Element: 87

Enter a Element: 34

The Largest Element in [10, 98, 12, 14, 15, 65, 76, 87, 34, 56, 87, 34] is 98

1. def secondLargestEleInList():

in\_ele = int(input('Enter the No of elements in a list: '))

in\_list = []

for ele in range(in\_ele):

in\_list.append(int(input('Enter a Element: ')))

print(f'The Second Largest Element in {in\_list} is {sorted(in\_list, reverse=True)[1]}')

secondLargestEleInList()

Output:

Enter the No of elements in a list: 5

Enter a Element: 12

Enter a Element: 13

Enter a Element: 14

Enter a Element: 15

Enter a Element: 16

The Second Largest Element in [12, 13, 14, 15, 16] is 15

1. def nLargestEleInList(k):

in\_ele = int(input('Enter the No of elements in a list: '))

in\_list = []

for ele in range(in\_ele):

in\_list.append(int(input('Enter a Element: ')))

print(f'The {k} Largest Element in {in\_list} is {sorted(in\_list, reverse=True)[0:k]}')

nLargestEleInList(4)

Output:

Enter the No of elements in a list: 10

Enter a Element: 1

Enter a Element: 2

Enter a Element: 3

Enter a Element: 4

Enter a Element: 5

Enter a Element: 6

Enter a Element: 7

Enter a Element: 8

Enter a Element: 9

Enter a Element: 10

The 4 Largest Element in [1, 2, 3, 4, 5, 6, 7, 8, 9, 10] is [10, 9, 8, 7]

1. def evenNoInList():

in\_ele = int(input('Enter the No of elements in a list: '))

in\_list = []

even\_list = []

for ele in range(in\_ele):

in\_list.append(int(input('Enter a Element: ')))

for ele in in\_list:

if ele%2 == 0:

even\_list.append(ele)

print(f'The Even Elements in {in\_list} are {even\_list}')

evenNoInList()

Output:

Enter the No of elements in a list: 6

Enter a Element: 1

Enter a Element: 2

Enter a Element: 3

Enter a Element: 4

Enter a Element: 5

Enter a Element: 6

The Even Elements in [1, 2, 3, 4, 5, 6] are [2, 4, 6]

1. def oddNoInList():

in\_ele = int(input('Enter the No of elements in a list: '))

in\_list = []

odd\_list = []

for ele in range(in\_ele):

in\_list.append(int(input('Enter a Element: ')))

for ele in in\_list:

if ele%2 != 0:

odd\_list.append(ele)

print(f'The Even Elements in {in\_list} are {odd\_list}')

oddNoInList()

Output:

Enter the No of elements in a list: 6

Enter a Element: 1

Enter a Element: 2

Enter a Element: 3

Enter a Element: 4

Enter a Element: 5

Enter a Element: 6

The Even Elements in [1, 2, 3, 4, 5, 6] are [1, 3, 5]

1. def checkEmptyList():

in\_list = eval(input('Enter all elements of the list: '))

if [] in in\_list:

print(f'There is an Empty list in {in\_list} at Position {in\_list.index([])}')

in\_list.remove([])

print(f'The List after removing [] is {in\_list}')

else:

print(f'There is no [] List in the list {in\_list}')

checkEmptyList()

Output:

Enter all elements of the list: [1,2,3,4,5,[],6,7,8,9,0]

There is an Empty list in [1, 2, 3, 4, 5, [], 6, 7, 8, 9, 0] at Position 5

The List after removing [] is [1, 2, 3, 4, 5, 6, 7, 8, 9, 0]

1. import copy

def cloneList():

in\_list = eval(input('Enter a list'))

print(in\_list, id(in\_list))

cloned\_list = in\_list.copy()

print(cloned\_list, id(cloned\_list))

cloneList()

Output:

Enter a list[1,2,3,4,5,6,7,8,9,0]

[1, 2, 3, 4, 5, 6, 7, 8, 9, 0] 1804715913280

[1, 2, 3, 4, 5, 6, 7, 8, 9, 0] 1804715963072

1. def checkOccurence():

in\_list = eval(input('Enter the elements of the list: '))

in\_num = eval(input('Enter the element to find: '))

count = 0

if in\_num in in\_list:

for ele in in\_list:

if ele == in\_num:

count = count+1

print(f'There are {count} occurences of {in\_num} in {in\_list}')

checkOccurence()

Output:

Enter the elements of the list: [1,2,3,1,2,3,1,2,3,4,5,6,4,5,6]

Enter the element to find: 6

There are 2 occurences of 6 in [1, 2, 3, 1, 2, 3, 1, 2, 3, 4, 5, 6, 4, 5, 6]