**1. Write a Python program to find sum of elements in list?**

def sum\_of\_elements(lst):

total = 0

for num in lst:

total += num

return total

numbers = list(map(int, input("Enter a list of numbers, separated by spaces: ").split()))

result = sum\_of\_elements(numbers)

print("Sum of elements in list:", result)

**2. Write a Python program to Multiply all numbers in the list?**

def multiply\_numbers(lst, multiplier):

result = []

for num in lst:

result.append(num \* multiplier)

return result

numbers = list(map(int, input("Enter a list of numbers, separated by spaces: ").split()))

multiplier = int(input("Enter the number to multiply by: "))

result = multiply\_numbers(numbers, multiplier)

print("Result after multiplying all numbers in the list:", result)

**3. Write a Python program to find smallest number in a list?**

def multiply\_numbers(lst):

product = 1

for num in lst:

product \*= num

return product

numbers = [1, 2, 3, 4, 5]

result = multiply\_numbers(numbers)

print("Product of all numbers in the list:", result)

**4. Write a Python program to find largest number in a list?**

def find\_largest\_number(lst):

largest = lst[0]

for num in lst:

if num > largest:

largest = num

return largest

numbers = [3, 2, 5, 1, 4]

result = find\_largest\_number(numbers)

print("Largest number in the list:", result)

**5. Write a Python program to find second largest number in a list?**

def find\_second\_largest\_number(lst):

largest = max(lst[0], lst[1])

second\_largest = min(lst[0], lst[1])

for num in lst[2:]:

if num > largest:

second\_largest = largest

largest = num

elif num > second\_largest:

second\_largest = num

return second\_largest

numbers = [3, 2, 5, 1, 4]

result = find\_second\_largest\_number(numbers)

print("Second largest number in the list:", result)

**6. Write a Python program to find N largest elements from a list?**

def find\_n\_largest\_elements(lst, n):

lst.sort(reverse=True)

return lst[:n]

numbers = [3, 2, 5, 1, 4]

result = find\_n\_largest\_elements(numbers, 3)

print("{} largest elements in the list: {}".format(3, result))

**7. Write a Python program to print even numbers in a list?**

def print\_even\_numbers(lst):

even\_numbers = []

for num in lst:

if num % 2 == 0:

even\_numbers.append(num)

return even\_numbers

numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

result = print\_even\_numbers(numbers)

print("Even numbers in the list:", result)

**8. Write a Python program to print odd numbers in a List?**

def print\_odd\_numbers(lst):

odd\_numbers = []

for num in lst:

if num % 2 != 0:

odd\_numbers.append(num)

return odd\_numbers

numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9, 10]

result = print\_odd\_numbers(numbers)

print("Odd numbers in the list:", result)

**9. Write a Python program to Remove empty List from List?**

def remove\_empty\_lists(lst):

return [sublist for sublist in lst if sublist]

lists = [[1, 2, 3], [], [4, 5], [], [], [6]]

result = remove\_empty\_lists(lists)

print("List without empty lists:", result)

**10. Write a Python program to Cloning or Copying a list?**

There are several ways to create a copy of a list in Python. Here are a few common methods:

1. Using the copy module:

import copy

original\_list = [1, 2, 3, 4, 5]

cloned\_list = copy.copy(original\_list)

print("Original list:", original\_list)

print("Cloned list:", cloned\_list)

In this method, the copy module is used to create a shallow copy of the list.

1. Using the list constructor:

original\_list = [1, 2, 3, 4, 5]

cloned\_list = list(original\_list)

print("Original list:", original\_list)

print("Cloned list:", cloned\_list)

In this method, the list constructor is used to create a copy of the list.

1. Using slicing:

original\_list = [1, 2, 3, 4, 5]

cloned\_list = original\_list[:]

print("Original list:", original\_list)

print("Cloned list:", cloned\_list)

In this method, slicing is used to create a copy of the list.

It's important to note that if the list contains objects (such as lists), these methods will only create a shallow copy of the list, not a deep copy. To create a deep copy, you can use the copy module's deepcopy function.

**11. Write a Python program to Count occurrences of an element in a list?**

def count\_occurrences(lst, element):

count = 0

for num in lst:

if num == element:

count += 1

return count

numbers = [1, 2, 3, 1, 2, 1, 4, 5, 1]

element = 1

result = count\_occurrences(numbers, element)

print("Number of occurrences of", element, "in the list:", result)