- Write a Python program to find sum of elements in list?

In [1]:
```python
def sum_of_elements(input_list):
    return sum(input_list)

# Example list
numbers = [1, 2, 3, 4, 5]

# Calculate the sum of elements in the list
total_sum = sum_of_elements(numbers)

print(f"The sum of elements in the list is: {total_sum}")

```

```
The sum of elements in the list is: 15
```

- Write a Python program to Multiply all numbers in the list?

In [2]:
```python
def multiply_all_elements(input_list):
    result = 1  # Initialize the result as 1 for multiplication
    for num in input_list:
        result *= num
    return result

# Example list
numbers = [1, 2, 3, 4, 5]

# Multiply all elements in the list
total_product = multiply_all_elements(numbers)

print(f"The product of all elements in the list is: {total_product}")

```

```
The product of all elements in the list is: 120
```

- Write a Python program to find smallest number in a list?

In [3]:
```python
def find_smallest_number(input_list):
    return min(input_list)

# Example list
numbers = [10, 5, 8, 3, 12]

# Find the smallest number in the list
smallest_number = find_smallest_number(numbers)

print(f"The smallest number in the list is: {smallest_number}")

```

```
The smallest number in the list is: 3
```

- Write a Python program to find largest number in a list?

In [4]:

```python
def find_largest_number(input_list):
    return max(input_list)

# Example list
numbers = [10, 5, 8, 3, 12]

# Find the largest number in the list
largest_number = find_largest_number(numbers)

print(f"The largest number in the list is: {largest_number}")

```

```
The largest number in the list is: 12
```

- Write a Python program to find second largest number in a list?

In [5]:

```python
def find_second_largest_number(input_list):
    # Sort the list in descending order
    sorted_list = sorted(input_list, reverse=True)

    # Check if the list has at least two elements
    if len(sorted_list) < 2:
        return "List has less than two elements"

    return sorted_list[1]  # Second largest number

# Example list
numbers = [10, 5, 8, 3, 12]

# Find the second largest number in the list
second_largest_number = find_second_largest_number(numbers)

print(f"The second largest number in the list is: {second_largest_number}")

```

```
The second largest number in the list is: 10
```

- Write a Python program to find N largest elements from a list?

In [6]:

```python
def find_n_largest_elements(input_list, n):
    # Sort the list in descending order
    sorted_list = sorted(input_list, reverse=True)

    # Check if the list has enough elements
    if len(sorted_list) < n:
        return "List has fewer elements than requested"

    return sorted_list[:n]  # Return the first N elements

# Example list
numbers = [10, 5, 8, 3, 12, 17, 6]

# Number of largest elements to find
N = 3

# Find the N largest elements in the list
n_largest_elements = find_n_largest_elements(numbers, N)

print(f"The {N} largest elements in the list are: {n_largest_elements}")

```

```
The 3 largest elements in the list are: [17, 12, 10]
```

- Write a Python program to print even numbers in a list?

In [7]:

```python
def print_even_numbers(input_list):
    even_numbers = [num for num in input_list if num % 2 == 0]
    return even_numbers

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

# Print even numbers in the list
even_numbers = print_even_numbers(numbers)
print("Even numbers in the list:", even_numbers)

```

```
Even numbers in the list: [2, 4, 6, 8, 10]
```

- Write a Python program to print odd numbers in a List?

In [8]:

```python
def print_odd_numbers(input_list):
    odd_numbers = []
    for num in input_list:
        if num % 2 != 0:
            odd_numbers.append(num)
    return odd_numbers

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

# Print odd numbers in the list
odd_numbers = print_odd_numbers(numbers)
print("Odd numbers in the list:", odd_numbers)

```

```
Odd numbers in the list: [1, 3, 5, 7, 9]
```

- Write a Python program to Remove empty List from List?

In [9]:
```python
def remove_empty_lists(input_list):
    non_empty_lists = list(filter(lambda lst: lst, input_list))
    return non_empty_lists

# Example list of lists
list_of_lists = [[1, 2], [], [3, 4], [], [], [5, 6], []]

# Remove empty lists from the list of lists
non_empty_lists = remove_empty_lists(list_of_lists)
print("List after removing empty lists:", non_empty_lists)

```

```
List after removing empty lists: [[1, 2], [3, 4], [5, 6]]
```

- Write a Python program to Cloning or Copying a list?

In [10]:
```python
def clone_list(original_list):
    return list(original_list)

# Example list
original_list = [1, 2, 3, 4, 5]

# Clone the original list
cloned_list = clone_list(original_list)
print("Cloned list using list() constructor:", cloned_list)

```

```
Cloned list using list() constructor: [1, 2, 3, 4, 5]
```

- Write a Python program to Count occurrences of an element in a list?

In [11]:
```python
def count_occurrences(input_list, element):
    return input_list.count(element)

# Example list
numbers = [1, 2, 3, 4, 2, 2, 3, 2, 5]

# Element to count occurrences
element_to_count = 2

# Count occurrences of the element in the list
occurrences = count_occurrences(numbers, element_to_count)
print(f"The element {element_to_count} occurs {occurrences} times in the list.")

```

```
The element 2 occurs 4 times in the list.
```

In [ ]:
```python

```