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

In [1]:
```
# Sample list
my_list = [10, 20, 30, 40, 50]

# Sum of elements in the list
list_sum = sum(my_list)

print("The sum of elements in the list is:", list_sum)
```

```
The sum of elements in the list is: 150
```

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

In [2]:
```
def multiply_list(numbers):
    result = 1
    for num in numbers:
        result *= num# Sample list
my_list = [10, 20, 30, 40, 50]

# Sum of elements in the list
list_sum = sum(my_list)

print("The sum of elements in the list is:", list_sum)

    return result

# Example usage
my_list = [2, 3, 4, 5]
print(multiply_list(my_list))  # Output: 120
```

```
120
```

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

In [3]:
```
def find_smallest(numbers):
    smallest = numbers[0]
    for num in numbers:
        if num < smallest:
            smallest = num
    return smallest

# Example usage
my_list = [5, 3, 8, 1, 7, 2]
print("The smallest number in the list is:", find_smallest(my_list))
```

```
The smallest number in the list is: 1
```

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

In [4]:
```
# create a list of numbers
numbers = [10, 5, 20, 15, 30]

# find the largest number in the list
largest_number = max(numbers)

# print the result
print("The largest number in the list is:", largest_number)
```

```
The largest number in the list is: 30
```

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

In [5]:
```
def find_second_largest(numbers):
    if len(numbers) < 2:
        return None
    largest = second_largest = float('-inf')
    for num in numbers:
        if num > largest:
            second_largest = largest
            largest = num
        elif num > second_largest and num != largest:
            second_largest = num
    return second_largest

# Example usage
numbers = [10, 20, 30, 40, 50]
second_largest = find_second_largest(numbers)
print("Second largest number is:", second_largest)
```

```
Second largest number is: 40
```

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

In [6]:
```
def find_largest_elements(input_list, N):
    # Sort the input list in descending order
    input_list.sort(reverse=True)

    # Return the N largest elements
    return input_list[:N]

# Example usage
input_list = [4, 7, 2, 9, 1, 5, 8, 3, 6]
N = 3
largest_elements = find_largest_elements(input_list, N)
print(f"The {N} largest elements in the list are: {largest_elements}")
```

```
The 3 largest elements in the list are: [9, 8, 7]
```

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

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

# using a for loop to iterate over the list
for number in numbers:
    # check if the number is even
    if number % 2 == 0:
        print(number)
```

```
2
4
6
8
10
```

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

In [2]:
```
numbers = [1, 2, 3, 4, 5, 6, 7, 8, 9]

for num in numbers:
    if num % 2 != 0:
        print(num)
```

```
1
3
5
7
9
```

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

In [3]:
```
my_list = [1, 2, [], 3, [], [], 4, 5, []]
new_list = [x for x in my_list if x != []]
print(new_list)
```

```
[1, 2, 3, 4, 5]
```

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

In [5]:
```
original_list = [1, 2, 3, 4, 5]
new_list = original_list.copy()

print(original_list) # [1, 2, 3, 4, 5]
print(new_list) # [1, 2, 3, 4, 5]

# Let's modify the original list and see if it affects the new list.
original_list[0] = 10
print(original_list) # [10, 2, 3, 4, 5]
print(new_list) # [1, 2, 3, 4, 5]
```

```
[1, 2, 3, 4, 5]
[1, 2, 3, 4, 5]
[10, 2, 3, 4, 5]
[1, 2, 3, 4, 5]
```

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

In [6]:
```
def count_occurrences(lst, element):
    count = 0
    for item in lst:
        if item == element:
            count += 1
    return count

# example usage
my_list = [1, 2, 3, 4, 2, 5, 2]
element_to_count = 2
occurrences = count_occurrences(my_list, element_to_count)
print(f"The element {element_to_count} appears {occurrences} times in the list {my_list}")
```

```
The element 2 appears 3 times in the list [1, 2, 3, 4, 2, 5, 2]
```

In [ ]:
```
```