In [16]:
```python
#Python Program for Find reminder of array multiplication divided by n
def find_remainder(arr, n):
    result = 1
    for num in arr:
        result = (result * num) % n

    return result
arr = [3, 4, 5]
n = 7
remainder = find_remainder(arr, n)
print(f"The remainder of the product of elements in the array divided by {n} is {re
```

```
The remainder of the product of elements in the array divided by 7 is 4
```

In [ ]:

In [24]:
```python
#Python program to interchange first and last elements in a list
# Swap function
def swapList(newList):

    newList[0], newList[-1] = newList[-1], newList[0]
    return newList

newList = [1, 2, 3, 4, 5]
print(swapList(newList))
```

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

In [ ]:

In [40]:
```python
#Python Program to check if given array is Monotonic
def is_monotonic(arr):
    increasing = decreasing = True

    for i in range(1, len(arr)):
        if arr[i] > arr[i - 1]:
            decreasing = False
        elif arr[i] < arr[i - 1]:
            increasing = False

    return increasing or decreasing

# Example usage:
monotonic_array1 = [1, 2, 3, 4, 5]
monotonic_array2 = [5, 4, 3, 2, 1]
non_monotonic_array = [1, 2, 3, 1, 5]

if is_monotonic(monotonic_array1):
    print("monotonic_array1 is monotonic")
else:
    print("monotonic_array1 is not monotonic")

if is_monotonic(monotonic_array2):
    print("monotonic_array2 is monotonic")
else:
    print("monotonic_array2 is not monotonic")

if is_monotonic(non_monotonic_array):
    print("non_monotonic_array is monotonic")
else:
    print("non_monotonic_array is not monotonic")
```

```
monotonic_array1 is monotonic
monotonic_array2 is monotonic
non_monotonic_array is not monotonic
```

In [ ]:

In [26]:
```
#write a program to find length of list

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

print('length of list is : ',len(listt))
```

```
length of list is :  5
```

In [ ]:

In [27]:
```
#write a program to check if element exists in list
def check_element_exists(element, my_list):
    return element in my_list
my_list = [1, 2, 3, 4, 5]
element_to_check = 3

if check_element_exists(element_to_check, my_list):
    print(f"{element_to_check} exists in the list.")
else:
    print(f"{element_to_check} does not exist in the list.")
```

```
3 exists in the list.
```

In [ ]:

In [28]:
```
#write a program to clear a list in Python
my_list = [1, 2, 3, 4, 5]
my_list.clear()
print(my_list)
```

```
[]
```

In [ ]:

In [29]:
```
#write a program to Reversing a List
List_A=[1,2,3,4,5]
List_A.reverse()
print(List_A)
```

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

In [ ]:

In [33]:
```
#write a program to find sum of elements in list
List_A=[2,3,4,5,6]
print(sum(List_A))
```

```
20
```

In [ ]:

In [36]:
```
#write a program to Multiply all numbers in the list
def multiply_list_elements(numbers):
    result = 1
    for number in numbers:
        result *= number
    return result
```

```
# Example usage:
my_list = [1, 2, 3, 4, 5]
result = multiply_list_elements(my_list)
print(f"The product of all numbers in the list is: {result}")
```

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

In [ ]:

In [ ]: