ASSIGNMENT
LIST SLICING AND COMPREHENSION

Q1. Make your own list of numbers. Ask a start and end position from User. Print the list from start position to end position using Slicing.

Q2. Make your own list of numbers. Ask a start and end position from User. Make another different list which will contain number from start to end position. Use slicing logic.

```
my_list = [10, -5, 8, 3, -1, -9, 7, 2]

'''
Enter start position = 2
Enter end position = 5

Result = [8, 3, -1, -9]
'''
```

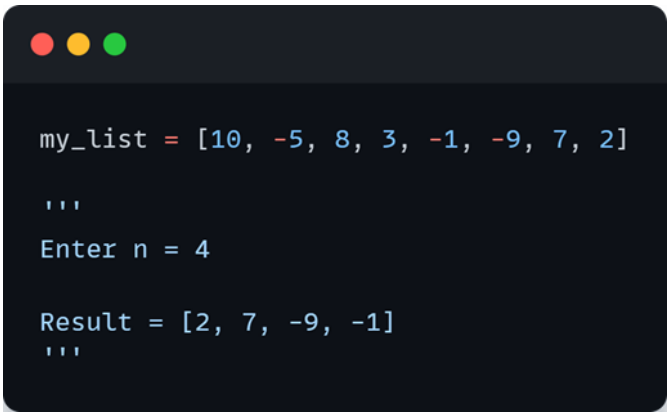
Q3. Make your own list. Write a Python program that takes an integer as an input, and make a new list containing the last n elements of the original list. Using slicing logic.

```
my_list = [10, -5, 8, 3, -1, -9, 7, 2]

'''
Enter n = 3

Result = [-9, 7, 2]
'''
```

Q4. Make your own list. Write a Python program that takes an integer as an input, and make a new list containing the last n elements of the original list but in reverse order. Using slicing logic.



```
my_list = [10, -5, 8, 3, -1, -9, 7, 2]

'''
Enter n = 4

Result = [2, 7, -9, -1]
'''
```

Q5. Write a python program to interchange first and last elements in a list.

Q6. Write a Python code to split a list into two halves using list slicing. (Keep the length of list even).

Q7. Ask an integer **n** from the user. Write a Python program to generate a list of powers of 2 from **1 to n** using List Comprehension

Example input: n = 6

Example output: [1, 4, 9, 16, 25, 36]

Q8. Count how many numbers are divisible by 3 and 6 between 1 to 1000 by using list comprehension.

Output: 166

Q9. Ask an integer **n** from user. Create a list which contains all the prime numbers from **1 to n** using list comprehension.

Input: n = 20
Output: [2, 3, 5, 7, 11, 13, 17, 19]

Q10. Ask an integer **n** from user. Create a list which contains all the numbers divisible by 5.

Input: n = 30
Output: [5, 10, 15, 20, 25, 30]