# ASSIGNMENT 7
# LIST SLICING/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]
'''
```
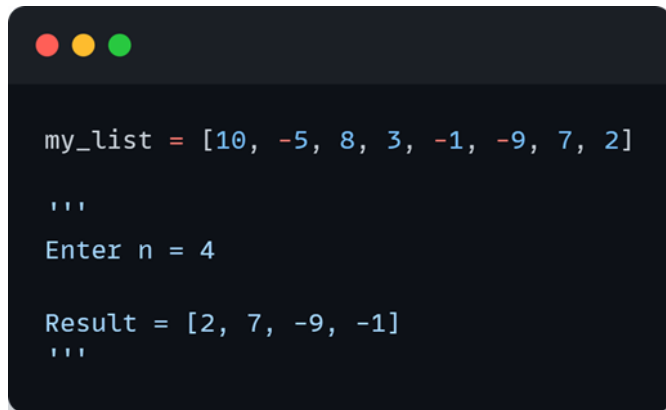
**Q3.** Make your own list. Write a Python program that takes an integer as an input, and make a new list containing the last n elements of the original list. Using slicing logic.

```
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.

```python
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 numbers divisible by 5.

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