**AI 102L**

**Lab 02 Task**

Task 1. Unique Elements in a List

Take a list as input and remove duplicate elements.

Output:

numbers = [4, 2, 9, 4, 2, 1, 8, 3, 9]

output [1, 2, 3, 4, 8, 9]

Task 2. Tuple Manipulation

* Take a tuple of numbers.
* Find and display:
  + Maximum
  + Minimum
  + Sum of elements.
* Convert the tuple into a list, sort it, and convert it back into a tuple.

Output:

numbers\_tuple = (7, 2, 9, 1, 5, 3)

Max: 9

Min: 1

Sum: 27

Sorted Tuple: (1, 2, 3, 5, 7, 9)

### **Task 3. Vowel and Consonant Counter**

* Take a string as input.
* Count and display the number of **vowels** and **consonants**.
* Use a **set** to define vowels

Output:

sentence = "Hello, World!"

vowels = {'a', 'e', 'i', 'o', 'u'}

out

Vowels: 3

Consonants: 7

### **Task 4. Common and Unique Elements in Two Lists**

* Given two lists, find:
  + **Common elements**
  + **Unique elements** in each list

Output

list\_a = [1, 2, 3, 4, 5]

list\_b = [4, 5, 6, 7, 8]

out:

Common Elements: {4, 5}

Unique to list 1: {1, 2, 3}

Unique to list 2: {8, 6, 7}

Task 5. Print this pattern using nested for loop

1 2 3 4 5

2 4 6 8 10

3 6 9 12 15

4 8 12 16 20

5 10 15 20 25