

## Assignment 4 Loops in Python



1. Write a Python program that creates a list of 5 numbers and prints each number using a for loop.
2. Write a program that calculates the sum of all elements in a list of numbers using a loop.
3. Write a Python program that finds the maximum number in a list using a loop (do not use built-in max() function).
4. Write a Python program to create a tuple of strings and print each element using a for loop.
5. Write a Python program that concatenates all elements in a tuple of strings into a single string using a loop.
6. Write a Python program that reverses the elements of a tuple using a loop.
7. Create a dictionary where the keys are names of students and the values are their scores. Write a program that prints each student's name and their score using a loop.
8. Write a Python program that calculates the sum of all the values in a dictionary using a loop.
9. Write a Python program that finds the student with the highest score from a dictionary using a loop (without using max()).
10. Given a list of tuples where each tuple contains a student's name and their score, write a Python program that creates a dictionary. The dictionary should group the students based on whether their score is 'pass' ( $\geq 50$ ) or 'fail' ( $< 50$ ). Use loops to categorize the students.
11. Given a list and a tuple, write a Python program that finds the common elements between the list and the tuple using a loop.

python

**my\_list = [1, 2, 3, 4, 5]**

**my\_tuple = (3, 4, 5, 6, 7)**