**LOOPING CONCEPT**

**1.Write a Python program that creates a list of 5 numbers and prints each number using a for loop.**

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

for i in list:

print(i)

**2.Write a program that calculates the sum of all elements in a list of numbers using a loop.**

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

l1= 0

for number in list:

l1 = l1 + number

print("the sum of numbers is",l1)

the sum of numbers is 15

**3.Write a Python program that finds the maximum number in a list using a loop (do not use built-in max() function).**

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

l1 = 0

for number in list:

if number > l1:

l1 = number

print("the highest number is" , l1)

the highest number is 5

**4.Write a Python program to create a tuple of strings and print each element using a for loop.**

strings = ("a","b","c","nakul", "anand", "ak")

for i in strings:

print(i)

a

b

c

nakul

anand

ak

**5.Write a Python program that concatenates all elements in a tuple of strings into a single string using a loop.**

strings = ("i","like","booze","and", "business", "analytics")

s = " "

for string in strings:

s = s + string + " "

print("combination of strings are as follows ",s)

combination of strings are as follows i like booze and business analytics

**6.Write a Python program that reverses the elements of a tuple using a loop.**

strings = ("i","like","booze","and", "business", "analytics")

**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.**

student\_scores = {"Alice": 85, "Bob": 90, "Charlie": 78, "Diana": 92, "Eve": 88}

for i,j in student\_scores.items():

print("the name of student is", i, "and his/her marks is", j)

the name of student is Alice and his/her marks is 85

the name of student is Bob and his/her marks is 90

the name of student is Charlie and his/her marks is 78

the name of student is Diana and his/her marks is 92

the name of student is Eve and his/her marks is 88

**8.Write a Python program that calculates the sum of all the values in a dictionary using a loop.**

student\_scores = {"Alice": 85, "Bob": 90, "Charlie": 78, "Diana": 92, "Eve": 88}

score = 0

for scores in student\_scores.values():

score = score + scores

print("the total sum of score is" ,score)

the total sum of score is 433

**9.Write a Python program that finds the student with the highest score from a dictionary using a loop (without using max()).**

student\_scores = {"Alice": 85, "Bob": 90, "Charlie": 78, "Diana": 92, "Eve": 88}

score = 0

for scores in student\_scores.values() :

if scores > score:

score = scores

print("the highest score is " , score)

the highest score is 92

**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' (>= 50) or 'fail' (< 50). Use loops to ca**

students\_scores = [("Alice", 85), ("Bob", 90), ("Charlie", 78), ("Diana", 92), ("Eve", 88)]

**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.**

my\_list = [1, 2, 3, 4, 5] my\_tuple = (3, 4, 5, 6, 7)

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

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

common = []

for item in my\_list:

if item in my\_tuple:

common.append(item)

print ("common items are" , common)

common items are [3, 4, 5]