**Assignment-1**

**Task 1: Factorial Calculator: Write a Python program that calculates the factorial of a given number.**

**Code:**

# Python program to find the factorial of a number provided by the user.

# take input from the user

num = int(input("Enter an integer: "))

factorial = 1

# check if the number is negative, positive or zero

if num < 0:

print("Sorry, factorial does not exist for negative numbers")

elif num == 0:

print("The factorial of 0 is 1")

else:

for i in range(1,num + 1):

factorial = factorial\*i

print("The factorial of",num,"is",factorial)

**Task 2: Sum and Average:Create a function that takes a list of numbers as input and returns the sum and average of those numbers**

**Code:**

# Python program to find the sum and average of the list of numbers

def sum\_average(num\_list):

# variable to store the sum

sum = 0

# Finding the sum

for i in num\_list:

sum += i

# calculate the average

avg = sum/len(num\_list)

return sum, avg

num\_list = [4, 5, 1, 2, 9, 7, 10, 8]

sum, average =sum\_average(num\_list)

print("sum of numbers is",sum)

print("average of numbers is", average)