Kernel: SageMath 10.4

CODE INDENTED BY RJD

Aim :- Write a Program in python to demonstrate the use of functions.

Declaring and calling a Normal Non Parameterized function.

In [6]:
```
def my_function():
    print("This is my Function.");


my_function();
```

Out[6]:
```
This is my Function.
```

In [7]:
```

def my_function():
    print("Hello World.");
    print("This is my Function.");
for i in range(4):
    my_function();
```

Out[7]:
```
Hello World.
This is my Function.
Hello World.
This is my Function.
Hello World.
This is my Function.
Hello World.
This is my Function.
```

Declaring and calling a Single Parameterized function.

In [8]:
```
def your_name(name):
    print("My Name is "+ name);

your_name("Rushi");
```

Out[8]:
```
My Name is Rushi
```

In [9]:
```
def your_name(name):
    print("My Name is "+ name);

your_name("Rushi");
your_name("Sumit");
your_name("Shravan");
your_name("Piyush");
your_name("Harshit");
```

Out[9]:
```
My Name is Rushi
My Name is Sumit
My Name is Shravan
My Name is Piyush
My Name is Harshit
```

Declaring and calling a Multi Parameterized function.

In [10]:
```
def your_name(name_1,name_2):
    print("My Name is " + name_1 + " and my name is "+ name_2 + "." + " We both Love each other");

your_name("Meet","Shlok");
```

Out[10]:
```
My Name is Meet and my name is Shlok. We both Love each other
```

In [11]:
```
def your_name(name_1,name_2):
    print("My Name is " + name_1 + " and my name is "+ name_2 + "." + " We both Love each other");

your_name("Person_1","Person_2");
your_name("Person_2","Person_1");
your_name("Person_1","Person_2");
```

Out[11]:
```
My Name is Person_1 and my name is Person_2. We both Love each other
My Name is Person_2 and my name is Person_1. We both Love each other
My Name is Person_1 and my name is Person_2. We both Love each other
```

Python Program to ADD two numbers using the concept of Parameter Passing in functions.

In [12]:
```
def addTwoNumbers(num_1,num_2):
    num_3 = num_1 + num_2;
    print("The Numbers " + str(num_1) + " and " + str(num_2) + " Add to give " + str(num_3));

addTwoNumbers(68,1);
```

Out[12]:
```
The Numbers 68 and 1 Add to give 69
```

In [13]:
```
def subTwoNumbers(num_1,num_2):
    num_3 = num_1 - num_2;
    print("The Numbers " + str(num_1) + " and " + str(num_2) + " Substract to give " + str(num_3));

subTwoNumbers(70,1);
```

Out[13]:
```
The Numbers 70 and 1 Substract to give 69
```

Printing a String List Using a Function.

In [14]:
```
def myList():
    for x in fruits:
        print(x);
fruits = ["Banana","Apple","Gauva","Mango"];

myList();
```

Out[14]:
```
Banana
Apple
Gauva
Mango
```

Printing a Number List Using a Function.

In [15]:
```
def myList():
    for x in fruits:
        print(x);
fruits = [1,2,3,4,5,6,7,8,9,10];

myList();
```

Out[15]:
```
1
2
3
4
5
6
7
8
9
10
```

Python program to print Factorial of a Number.

In [18]:
```
def factorial(num):
    result = 1
    for i in range(1, num + 1):
        result *= i
    print("The factorial of " + str(num) + " is " + str(result))

factorial(1);
factorial(3);
factorial(5);
factorial(10);
```

Out[18]:
```
The factorial of 1 is 1
The factorial of 3 is 6
The factorial of 5 is 120
The factorial of 10 is 3628800
```

Conclusion :- The Experiment has been successfully Executed.