Day 27 of DevOps class

Agenda – what is a function in Python, how do create a function and how do they work and write a program using a function

Functions in Python you use functions in programming to bundle a set of instructions that you want to use repeatedly or that, because of their complexity, are better self–contained in a sub program and called when needed.

1. What is function?

A function is a block of code that only runs when it is called.

You can pass data, known as parameters, into a function.

A function can return as a result

1. How to create a function?

In Python a function is defined using the def keyword:

Example:

def python():

print(“Hello from a python”)

#Call function:

Def add(a , b)

return a + b

sum = add(10, 20)

print(sum)

output:

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Passing a list as an Argument

You can send any data type of argument to a function (string, number, list, dictionary, etc.), and it will be treated as the same data type inside the function.

E.g. If you send a List as an argument, It will still be a List when it reaches the function:

def items(food):

for x in food:

print(x)

fruits = [‘apple’ , ‘banana’ , ‘kiwi’]

items(fruits)

Example programs for functions:

def add(a , b):  
 return a + b  
  
def sub(a , b):  
 return a - b  
  
def mul(a , b):  
 return a \* b  
  
def div(a , b):  
 return a / b  
  
def add(a, b):  
 return a + b  
  
  
Item\_1 = int(input("Enter the value of Item 1: "))  
Item\_2 = int(input("Enter the value of Item 1: "))  
  
print(f"add", add(Item\_1, Item\_2))  
print("sub", sub(Item\_1, Item\_2))  
print("mul", mul(Item\_1, Item\_2))  
print("div", div(Item\_1, Item\_2))

Fibonacci series using functions concept

def is\_fibonacci(n):  
 n0 = 0  
 n1 = 1  
 count = 0  
  
 if n <= 0:  
 print("Enter a value which is greater than 1 :", n)  
 elif n == 1:  
 print("Fibonacci series up to:", n)  
 else:  
 print("Fibonacci Series:")  
 for i in range(n):  
 fibonacci\_series.append(n0)  
 print(n0)  
 nth = n0 + n1  
 n0 = n1  
 n1 = nth  
  
 return fibonacci\_series  
  
n = int(input("Enter a max number of terms in the fiboniacci series:"))  
print("selected values of n is: ", n)  
fibonacci\_series = []  
check = is\_fibonacci(n)  
print(check)