**Global Variables:-**

**The Variables which are declared inside the python file and outside the function or Class are called global variables.**

* **The Scope of global variable is anywhere it means within the same python file (or) outside the python file.**

**Example:-**

**a=100 >>>>>>>>>>>it is a Globaal vriable**

**def fun1():**

**print(“function1”)**

**print(a)**

**print(a)**

**fun1()**

**print(a)**

**Output:-**

**100**

**Function1**

**100**

**100**

**Local Variable:-**

**The variable which are declare inside the function or method is called Local Variable.**

**>> The Scope Of the lacal variable is within the function or method only.**

**Example:-**

**a=100**

**def fun1()**

**print(“function1”)**

**print(a)**

**b=500**

**print(b)**

**print(a)**

**fun1()**

**print(b) #Error**

**Output:**

**100**

**Function1**

**100**

**500**

**Note:-**

**We connot modify global variable value inside a function**

**Example:- memory**

**a=100---------------------------------------it is a global variable a---🡪100----int class obj**

**def fun1(): local memory**

**a=”Bunny”-----------------------it’s a local variable a---🡪Bunny----str cls obj**

**print(“a”)**

**print(a)**

**fun1()**

**print(a)**

**Output:-**

**100**

**Bunny**

**100**

**Note 1:-**

**To modify a global variable in a function we use “global” Keyword.**

**Note2**

**To Global Keyword is used to declare global variable inside a function.**

**Example of Note 1:-**

**a=”Bunny”**

**def fun1():**

**global a**

**a=100**

**print(a)**

**print(a)**

**fun1()**

**print(a)**

**Output:-**

**Bunny**

**100**

**100**

**Example:-**

**a=100**

**def fun1():**

**print(“function1”)**

**print(a)**

**def fun2()**

**print(“function2”)**

**print(a)**

**print(a)**

**fun1()**

**fun2()**

**Output:-**

**100**

**Function1**

**100**

**Function2**

**100**

**Example:-**

**Def fun1():**

**Print(“function1”)**

**a=50 # local variable**

**print(a)**

**def fun2():**

**print(“function2”)**

**global a**

**a=60**

**print(a)**

**print(“global variable”)**

**a=70**

**print(a)**

**fun2()**

**print(a)**

**fun1()**

**print(a)**

**Output:-**

**Global variable**

**70**

**Function2**

**60**

**60**

**Function1**

**50**

**60**

**Example on Global variable inside the function:-**

**Def fun1():**

**global a**

**a=50**

**print(a)**

**def fun2():**

**print(a)**

**fun1()**

**fun2()**

**print(a)**

**Output:-**

**50**

**50**

**50**

**PARAMETER/ARGUMENTS:-**

**The variables which are declare in function header are called parameter.**

**The scope of parameter is throughout the function body.**

**Parameters are nothingbut arguments these are divided into 4 types they are**

1. **Required argument**
2. **Default argument**
3. **Argument length**
4. **Keyword argument**

**Example on Required keyword argument:-**

**If a function is defined using required parameter so it is mandatory to call function with “Values” else returns error.**

**Def add(a,b):**

**Print(a)**

**Print(b)**

**Print(“sum of=”,a+b)**

**add(10,25)**

**add(25.5,32.5)**

**add(“Bunny”,”tech”)**

**Output:-**

**10**

**25**

**Sum of=35**

**25.5**

**32.5**

**Sum of=58**

**Bunny**

**Tech**

**Sum of=Bunnytech # in string which is a cancadination**

**Example on Default Arguments:-**

**If a function is defined using default argument so it is “not” mandatory to function callig time**

**Def add(a=10,b=50):**

**Print(a)**

**Print(b)**

**Print(“sum of=”,a+b)**

**# Calling without passing value**

**add()**

**# Calling with one value**

**add(25)**

**# Calling function with named arguments**

**add(b=20)**

**# Calling function with two arguments**

**add(a=Bunny,b=nani)**

# **Calling function with named arguments**

**add(a=25,b= -65)**

**Output:-**