1. What is the result of the code, and explain?

>>> X = 'iNeuron'

>>> def func():

print(X)

>>> func()

Answer:

X = 'iNeuron'

def func():

print(X)

func()

# The global variables are accessible in side the functions in python.

#But we can not access function variable out side function.

#Since x is global variable we are able to print it in side the function solution : 'iNeuron'

2. What is the result of the code, and explain?

>>> X = 'iNeuron'

>>> def func():

X = 'NI!'

>>> func()

>>> print(X)

Answer:

X = 'iNeuron'

def func():

X = 'NI!'

func()

print(X)

#Ans. The global variables are access in side the functions in python. But we can not access function variable out side function.

# Since x is golbal variable we are able to print it out side of the function solution = 'iNeuron'

iNeuron

3. What does this code print, and why?

>>> X = 'iNeuron'

>>> def func():

X = 'NI'

print(X)

>>> func()

>>> print(X)

Answer:

X = 'iNeuron'

def func():

X = 'NI!'

print(X)

func()

print(X)

# The global variables are access in side the functions in python. But we can not access function variable out side function.

# X is updated with 'NI' which is local to function and its immutable. its name space is with in the function solution = 'NI!', 'iNeuron'

NI!

iNeuron

4. What output does this code produce? Why?

>>> X = 'iNeuron'

>>> def func():

global X

X = 'NI'

>>> func()

>>> print(X)

Answer:

X = 'iNeuron'

def func():

global X

X = 'NI!'

print(X)

func()

print(X)

#Ans. since the X in side function is made Global, it will be accesible out side of the function too.

#now X will have new value.

#solution : 'NI!', 'NI!'

NI!

NI!

5. What about this code—what’s the output, and why?

>>> X = 'iNeuron'

>>> def func():

X = 'NI'

def nested():

print(X)

nested()

>>> func()

>>> X

Answer:

X = 'iNeuron'

def func():

X = 'NI'

def nested():

print(X)

nested()

func()

X

#. the nested() function will print 'iNeuron', Then func() does not display anything,

# and x ='NI' is not accessible out

#side the function.

#Solution : 'iNeuron'

iNeuron

6. How about this code: what is its output in Python 3, and explain?

>>> def func():

X = 'NI'

def nested():

nonlocal X

X = 'Spam'

nested()

print(X)

>>> func()

Answer:

def func():

X = 'NI'

def nested():

nonlocal X

X = 'spam'

nested()

print(X)

func()

#Nonlocal variables are used in nested functions whose local scope is not defined.

#This means that the variable can be neither in the local nor the global scope. it print the updated value from nested

#function

#Sol : 'spam'

spam