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Assignment-3

--------------------------------------------------------------------------------------------------------------------------------------1. Why are functions advantageous to have in your programs?

A)Functions are advantageous to have in python programs for several reasons:

1. Modularity

2. code organization

3. Reusability

4.Abraction

2. When does the code in a function run: when it's specified or when it's called?

A) The code inside a function in python runs when the function is called.

When the define a function in python , are essentially careating a reusable block of code.

Ex:def greet(name):

print("Hello, " + name + "!")

greet("Alice")

3. What statement creates a function?

A) In python ‘def’ statement is used to create a function.it is followed by the name of the function ,parenthesis that may contain parameters and a colon.

Syn: def function\_name(parameters)

Ex: def add\_numbers(a, b):

sum = a + b

return sum

4. What is the difference between a function and a function call?

A) Function: A function is a block of reusable code that performs a specific task.it is defined using the ‘def’ staeement and a block.

Function call: The act of executing a function and invoking its functionality.

Ex: def greet(name):

print("Hello, " + name + "!")

greet("Alice")

5. How many global scopes are there in a Python program? How many local scopes?

A) In python program there is typically one global scope and multiple local scopes.

-> Global scope: It refers to the top-level scope of a python program. Variables are defined in the global scope can be accessed from everywhere within the program.

-> Local scopes: Created when functions or other nested code blocks are executed. Variables defined within a local scope are only accessible within that scope or its nested scopes.

Ex: global\_var = 10

def my\_function():

local\_var = 20

print(global\_var)

my\_function()

6. What happens to variables in a local scope when the function call returns?

A) When the execution of the function terminates (returns), the local variables are destroyed. the function execution ends and with it, the variable goes out of scope, it gets deleted from the memory.

7. What is the concept of a return value? Is it possible to have a return value in an expression?

A) A return is a value that a function returns to the calling script or function when it completes its task. A return value can be any one of the four variable types: handle, integer, object, or string. The type of value your function returns depends largely on the task it performs.

8. If a function does not have a return statement, what is the return value of a call to that function?

A) If no return statement appears in a function definition, control automatically returns to the calling function after the last statement of the called function is executed. In this case, the return value of the called function is undefined.

9. How do you make a function variable refer to the global variable?

A)  when we create a variable inside a function, that variable is local, and can only be used inside that function. To create a global variable inside a function, and can use the global keyword.

10. What is the data type of None?

A) The None keyword is used to define a null value, or no value at all. None is not the same as 0, False, or an empty string. None is a data type of its own and only None can be None.

11. What does the sentence import areallyourpetsnamederic do?

12. If you had a bacon() feature in a spam module, what would you call it after importing spam?

A) If we had a bacon() feature in a spam module.This function can be called with spam  bacon().

13. What can you do to save a programme from crashing if it encounters an error?

A) we have moved our code inside a try and except statement. Try running the program and it should throw an error message instead of crashing the program.

14. What is the purpose of the try clause? What is the purpose of the except clause?

A) The try block lets you test a block of code for errors. The except block lets you handle the error.