ASSIGNMENT 3 Solutions

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

A: Advantages of functions are:

* Reducing duplication of code. This makes programs shorter, easier to read, and easier to update.
* Increases program readability.
* Divide a complex problem into simpler ones.
* Reduces chances of error.

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

A: The code in a function executes when the function is called, not when the function is specified. When a function is "called" the program "leaves" the current section of code and begins to execute the first line inside the function.

3. What statement creates a function?

A: The def() statement defines a function

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

A: A function is a block of code that does a particular operation and returns a result. It usually accepts inputs as parameters and returns a result. However parameters are not mandatory. A function call is the code used to pass control to a function

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

A: There is one global scope, and a local scope is created whenever a function is called. A variable created inside a function belongs to the local scope of that function, and can only be used inside that function whereas A variable created in the main body of the Python code is a global variable and belongs to the global scope.

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

A: When a function returns, the local scope is destroyed, and all the variables in it are forgotten. A local variable becomes undefined after the function call completes

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

A: We can use the return statement to make functions send Python objects back to the caller code. These objects are known as the function’s return value. A return value is the value that a function call evaluates to. Like any value, a return value can be used as part of an expression.

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

A: If there is no return statement for a function, its return value is None. The function always returns None if return is not written.

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

A: A global statement forces a variable in a function to refer to the global variable. If we want to refer to a global variable in a function, we can use the **global** keyword to declare which variables are global.

10. What is the data type of None?

A: The data type of None is **NoneType**.

11. What does the sentence import areallyourpetsnamederic do?

A: That import statement imports a module named areallyourpetsnamederic.

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

A: 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 can place the line of code that might cause an error in a try clause and use except block to handle the error

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

A: The code that could potentially cause an error goes in the try clause. The code that executes if an error happens goes in the **except** clause.