

assignment 3

June 10, 2023

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

ANS: Functions reduce the need for duplicate code. This makes programs shorter, easier to read, and easier to update. The main advantage of functions is code Reusability. Functions allow clean and manageable code to be designed. Divide a complex problem into simpler ones. Python gives us many built-in functions like `print()`, etc. but we can also create our own functions.

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

ANS: The code in a function executes when it's called not when it's specified.

3. What statement creates a function?

ANS: In Python, we define a function with the `def` keyword, then write the function identifier (name) followed by parentheses and a colon. The syntax to declare a function is:

```
def function_name(arguments):
```

```
# function body
```

```
return
```

Here,

`def` - keyword used to declare a function

`function_name` - any name given to the function

`arguments` - any value passed to function

`return` (optional) - returns value from a function

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

ANS: A function is nothing but just a set of statements which is written as a block to perform a specific type of job. while function call is using this function to achieve that task. Using a function to do a particular task at any point in program is called as function call. Unless a function is called there is no use of that function.

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

ANS: There is one global scope, and a local scope is created whenever a function is called.

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

ANS: When a function returns, the local scope is destroyed, and all the variables in it are forgotten.

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

ANS: A return is a value that a function returns to the calling function when it completes its task. 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?

ANS: If there is no return statement for a function, its return value is None.

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

ANS: A global statement will force a variable in a function to refer to the global variable. If you want to refer to a global variable in a function, you can use the global keyword to declare which variables are global.

10. What is the data type of None?

ANS: The data type of None is NoneType. The None keyword is used to define a null value, or no value at all.

11. What does the sentence `import areallyourpetsnamederic` do?

ANS: 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`?

ANS: This function can be called with `spam.bacon()`.

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

ANS: 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?

ANS: 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.

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