

Assignment 3

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

Ans - Functions are used so that we do not have to write repeated codes which returns same results in our project. It makes our program more efficient by avoiding duplicate codes.

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

Ans - A function will execute when it is called.

3. What statement creates a function?

Ans - To create a function you have to start with def keyword.

example - `def function_name():`

`<body of function>`

`return`

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

Ans - A function is defined where it consists of code for a particular task. But the code will be executed only when the function is being called by its name.

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

Ans - There is only one global scope in python and one local scope. Enclosing scope is limited to nested functions.

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

Ans - The variables defined inside a local scope of a function is only available within function body (local scope). Thus, when a function is called, and it returns a value then the local variables are killed.

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

Ans - A function performs a particular task and is expected to return a result. The return is achieved with the help of return keyword. If not return is specified, function will return a default value.

Yes, it is possible to have a return value in expression.

Example:

```
def squ(a):  
    return a*a
```

The squ function returns the square of the value passed. The return statement is an expression.

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

Ans - When a function doesn't have a return value , it returns a None type value.

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

Ans - By using parameters a function can refer to global variables.

10. What is the data type of None?

Ans - NoneType

11. What does the sentence import areallyourpetsnamederic do?

Ans - It imports the module named areallyourpetsnamederic , it throws exception if it's not defined.

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

Ans - bacon() is just a function defined in spam module. So bacon() feature is a function inside spam module.

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

Ans - Exception handling.

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

Ans - Any code inside a try block will not throw a runtime exception in case the code fails to execute properly. This will ensure that the whole code executes without halting the program execution.

Except clause will collect the error encountered during a try block and is often used to log the exception for fault finding later. Also, it can throw a custom defined message regarding the error.