ASSIGNMENT 3

FSDS BOOTCAMP

ANSWER 1 :

Function helps in reducing the duplicacy and increasing the reusability of code in a program, which in turn helps in making the code shorter and easier to debug.

ANSWER 2 :

The code written inside a function will run/execute only when the function is called, at this point the compiler will leave the current line of the code in the program and will go to the function and execute it, get a return value if the function returns a value and will proceed from the point where it left.

ANSWER 3:

`def` statement followed by 'function name' and `():` will create a function.

ANSWER 4:

A function is a block of code *(which means there is code written with proper indentation inside the function)* and function name is preceded by `def` keyword and followed by `():`

However, a function call means that the compiler will now goto the called function and will start to execute the code written in the function, and will return a value (None if function doesn't return a value).

ANSWER 5:

There is one *global* scope in the python program and a *local* scope is created each time a function is called.

When the code is written in the main body of python, the variables are created in a global scope, which means the variable will be there in the whole program. Functions define a *local* scope, every time a function is called, a new local scope is created which gets destroyed when the function call returns and all the variables inside that function are also destroyed, this is done so that variables inside the function won't clash with those outside (in main body or other function).

ANSWER 6:

When a function call returns, the local scope gets destroyed and all the variables in it are also destroyed

ANSWER 7:

Concept of return value: A return value is the value that a function call is evaluated to. A return value can also be used as a part of an expression.

ANSWER 8:

If a function doesn't specify a return value or doesn't have a return statement, its return value is evaluated to **None**.

ANSWER 9:
`global` keyword is used to make a function variable refer to the global variable.
for example:

```
X = 5   #global variable in module
def local_scope(y):
       global Z     #global variable in function declared
       Z = X + y
       return Z
```

ANSWER 10:
Data type of `None` is `NoneType.`

ANSWER 11:
The `import` statement will import the module named `areallyourpetsnamederic` to the current python code.

ANSWER 12: `spam.bacon()`

ANSWER 13:
To save a programme from crashing if it encounters an error exception handling is used, `try - except` statements are used and the line of code which is causing error is put in `try` block and the name of error in `except` block.

ANSWER 14:
Try and Except statements are used to handle exceptions within Python code.

- The `try` block is used to check some code for errors i.e the code inside the try block will execute when there is no error in the program.
- The code inside the `except` block will execute whenever the program encounters some error in the preceding try block.