**Why are functions advantageous to have in your program?**

Ans> One of the key advantages of having a function in our program is the code reusability. Once we write a function, we do not need to write the same code again and again for the same thing, all we need is to call the function to obtain the desired output.

Another use of function is that it promotes modularity in the program and in the debugging process we can easily figure out where the problem is. Also breaking the program into module helps keep things local to the function and enforce security as well as access permissions.

Python also has the provision of function overriding due to which we can write a function and overwrite them in different classes as per requirement of that specific class.

**When does the code in a function run: when it’s specifies or when it’s called?**

Ans> the code in the function only runs when we call that specific function. Functions are just block of code and require explicit calling in order to be used. This actually helps as we will only have the effect of the method when required so that desired output can be obtained.

**What statement creates a function?**

Ans> to create a function we use the

* def function\_name(\*args):

// function body

**What is the different between a function and a function call?**

Ans>

* Function is the block of code written to perform a specific task which contains more or less all the data and logics involved to perform the task encapsulated inside of it while some are provided using the parameters. But this block of code cannot be used unless called, so when we call a function, we refer to the term “function call” which means we are now invoking the code written inside a function.
* A function is made using a keyword “def” where as in a function call we write the name of the function and provide adequate parameter values to it if required.

**How many global scopes are there in python? How many local scopes?**

Ans> There can only be one global scope in python as global reference to an entity which is outside the scope of all the block in the python program and can be accessed by them when required. Any number of local scopes are possible in python.

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

Ans> the life of the local variables is only until the scope of the block it is written in. So, when a function call returns, or function execution ends the local scope entities are all discarded meaning memory assigned to them will be reset which is why they are called local variables. Even the values of these local variables depend on the current state of the block they are in if the block is reused local variable take up the newer value or the values provided in that particular instance.

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

Ans> Return statement is the ending statement in the function body which is mainly used to return or send the results that the function generated to the statement which called it. While implementing recursion we use return to call the function. Return can only be used inside a function.

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

Ans> None is returned if no return statements are found. None in python is used to define a null value, or no value at all. None belongs to NoneType.

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

Ans> to refer to a global variable we use the keyword global before the variable declaration in python. If x is a global variable and we need to use it inside a function then we declare variable x as global x inside the function body which creates a reference to the global value of x. If keyword is not used the variable x inside the function will have a local scope which basically mean x outside and x inside will refer to 2 difference memory areas which leads to different values.

**What is the data type of None?**

Ans> the data type of None is NoneType.

**What does the sentence import areallyourpetsnamederic do?**

Ans> the import keyword is used to fetch the code in one module in another module. So here we are fetching the code from areallyourpertsanamederic module into another module where this import statement is written. The import statement searches for the named module and then binds the results of that search to a name in the local scope. When import is used it calls the \_\_import\_\_().

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

Ans> to call a function from an imported module all we need is to use ‘.’ Operator like module\_name.function\_name()

**What can you do to save a program from crashing if it encounters an error?**

Ans> try except statements can be used to handle the error encountered so that the program can be saved. The try block is used to check the code for error and if error is encountered the code inside the except block will execute if the error matches its condition. In the try clause of python we other 2 keywords namely else and finally, where else is executed when try block does not generate any exception and finally is always executed.

**What is the purpose of the try clause? What is the purpose of the except clause?**

And> the try clause is used to implement the concept of exception handling in a python program. If a piece of code I likely to throw an exception or error, we write them inside the try clause which basically check the block of code. The except clause is used when the code inside the try block produces an exception, the except clause can be multiple and each have condition which is basically the expected error that the code inside except is made to handle.