Scoping Points to Remember

❖ Scope refers to the visibility of variables, parameters and functions in one part of a program to another part of the same program.

❖ The process of binding a variable name with an object is called mapping.= (equal to sign) is used in programming languages to map the variable and object.

❖ Namespaces are containers for mapping names of variables to objects.

❖ The scope of a variable is that part of the code where it is visible.

❖ The LEGB rule is used to decide the order in which the scopes are to be searched for scope resolution.

❖ Local scope refers to variables defined in current function.

❖ A variable which is declared outside of all the functions in a program is known as global variable.

❖ A function (method) with in another function is called nested function.

❖ A variable which is declared inside a function which contains another function definition with in it, the inner function can also access the variable of the outer function. This scope is called enclosed scope.

❖ Built-in scope has all the names that are pre-loaded into program scope when we start the compiler or interpreter.

❖ A module is a part of a program. Programs are composed of one or more independently developed modules.

❖ The process of subdividing a computer program into separate sub-programs is called Modular programming.

- ❖ Access control is a security technique that regulates who or what can view or use resources in a computing environment. It is a fundamental concept in security that minimizes risk to the object.

- ❖ Public members (generally methods declared in a class) are accessible from outside the class.

- ❖ Protected members of a class are accessible from within the class and are also available to its sub-classes

- ❖ Private members of a class are denied access from the outside the class. They can be handled only from within the class.

- ❖ Python prescribes a convention of prefixing the name of the variable/method with single or double underscore to emulate the behaviour of protected and private access specifiers.

- ❖ C++ and Java, control the access to class members by public, private and protected keywords

- ❖ All members in a Python class are public by default whereas by default in C++ and java all members are private.