**Python Advance Assignment 3**

1. **What is the concept of an abstract superclass?**

An abstract class can be considered as a blueprint for other classes. It allows you to create a set of methods that must be created within any child classes built from the abstract class. A class which contains one or more abstract methods is called an abstract class. An abstract method is a method that has a declaration but does not have an implementation. While we are designing large functional units we use an abstract class. When we want to provide a common interface for different implementations of a component, we use an abstract class.

1. **What happens when a class statement’s top level contains a basic assignment statement?**

“Top-level code” is the first user-specified Python module that starts running. It’s “top-level” because it imports all other modules that the program needs. Sometimes “top-level code” is called an *entry point* to the application. \_\_main\_\_ is the name of the environment where top-level code is run.

1. **Why does a class need to manually call a superclass’s \_\_init\_\_ method?**

The main reason for always calling base class \_init\_\_ is that base class may typically create member variable and initialize them to defaults. So if you don't call base class \_init\_\_, none of that code would be executed and you would end up with base class that has no member variables

1. **How can you augment, instead of completely replacing, an inherited method?**

What we really want to do here is somehow augment the original give Raise, instead of replacing it altogether. The good way to do that in Python is by calling to the original version directly, with augmented arguments.

1. **How is the local scope of a class different from that of a function?**

Local scope is the area between an { and it's closing }. Function scope is the area between the opening { of a function and its closing }, which may contain more "local" scopes. A label is visible in the entirety of the function within which it is defined.