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# IT FDN 110

Assignment 07

# Link to Github:

<https://github.com/STrostle/IntroToProg-Python-Mod06>

# Statements, functions and classes

Functions are organized into classes when a programmer believes they will be used many times in many programs, or just to make their code more organized. Classes model how something should be defined and represents an idea or a blueprint for creating objects in Python. The basic structure for creating a class is using the keyword class, giving it a name and adding a colon. Then you can begin to add functions to the class. Functions within a class are called methods.

# Constructors, Attributes, Properties

In python a constructor is a special method within a class designated to initialize new class instances. There are three types of constructors, parameterized, non-parameterized, and default constructors. A non-parameterized constructor in Python is a constructor that does not accept any arguments except the mandatory self. The default constructor does not modify any attributes or perform actions other than creating the object and does not use the \_\_init\_\_ or self constructor.

# Class Inheritance

Inheritance in Python classes allows a child class to take on attributes and methods of another class. Below is an example of using inheritance. You can see we are passing the class Person into the new class student.

A computer screen shot of a computer code

Description automatically generated

# Overriden method

Part of inheritance in python is allowing a subclass to override a super class. This allows a child class to access and use the functions of a parent class but also change functionality when needed. Overriding is useful for avoiding duplication of code while allowing some functionality changes. Two requirements for the override method are that inheritance is used and that the child class has the same number of parameters.

# Git vs. GitHub Desktop

Git is a version control system while Github is a cloud based service that allows you to manage your Git repository. They both provide source code management and allow users to share code more easily. Git is installed locally, and is open source. Github offers additional features and a user interface, but depending on your licensing and usage it may not be free.