Inheritance at its core is the ability for one Java class to be able to inherit its structure from another class. In many ways it is akin to taking a skeleton structure and being able to reuse it for additional classes. We are taking code and making it easier to reuse in essence. Most often this is the methods and fields of the class. When referring to a class that we inherit from, we can call that class the parent class, super class or base class. When we refer to the class that inherits, we often refer to it as the subclass or child class. It is possible to add layers to the classes in the form of hierarchies. This refers to the superclass and the subclass structure however, a more complex structure can occur when a subclass acts a superclass as well. When we inherit from a superclass we utilize the keyword “extends”. This tells Java what class we are inheriting from and to. A simple example would be:

ArrayList is a Java class that is most often used when storing a collection that can be mutable. In Java the array class is not mutable and needs to be declared ahead of time. This makes changing an array difficult whereas the arrayList class can easily be extended etc. When we declare and arrayList we do so with: