Module 1 - Lecture 13

Inheritance Part 2

Review

- What is polymorphism?
- What are two ways to achieve polymorphism?
- What is an interface?

Let's Code!

Final keyword

- Making variables final means that their value cannot change once it is set.

- Making methods final means that children cannot override what the parent has defined.
  - Prevents logic that is integral to the application from being overridden by a poorly behaving subclass.
  - Just a design decision that should have good reason for being.

- Making class final means that another class cannot inherit from it.
  - Just a design decision that should have good reason for being.

Abstract

- Abstract classes cannot be instantiated, but they can provide logic and structure to their subclasses.

- Abstract methods are methods without logic and must be implemented by their subclasses.

- If a class includes an abstract method, it must be marked as abstract.

- If a class derives from an abstract class, it must override all abstract methods from its parent or it must also be marked abstract.

Abstract vs Interface

- Abstract classes can have implemented methods. An interface cannot.

- A class can only inherit from one class, but can implement many interfaces.

- Inheriting from a superclass is akin to making a more specialized version of that class. Implementing an interface means that you can be used in the context the interface is for. For example, there is a difference between being a Book and a TextBook vs being Sellable or Readable.

Reading

- Module 1
  - Unit Testing