



Module 1 Day 12

Polymorphism

Polymorphism

- “Many forms”
- We know that subclasses can override methods defined on the superclass
 - “Implementation” defined in each subclass
- The appropriate method gets invoked based on the Type of the target object
- Inheritance naturally lends itself to polymorphism
 - If B is a subclass of A and a function can accept A as a parameter, then it can also accept B

Interfaces

- Defines a contract between a class and its user
- Defines the **public** properties and methods, but NEVER the implementation
 - No need for access modifiers because all members are *public* by definition
- Classes which inherit the interface MUST provide the implementation
 - For **ALL** its methods
- Class inheritance → “is a”; Interface inheritance → “Can do”

Interfaces

- All members of an interface are public
- A class can
 - derive from ONE class
 - Implement MANY interfaces
- Polymorphism works with Interfaces!
 - If B is a class that *implements* interface IA and a function can accept IA as a parameter, then it can also accept B