**Week 6 Term Definitions**

abstract class

A class that cannot be instantiated and only acts as a base class to other classes. In some programming languages an abstract class also implies the presence of at least one abstract method, although this is not the case in C#, where a class can be abstract without the presence of an abstract method.

abstract method

A method for which no implementation has been specified/provided. The presence of an abstract method also implies that the class must also be abstract. Derived classes must provide an implementation for abstract methods defined in a base class, otherwise those derived classes are also abstract.

concrete class

A class which contains no abstract methods and/or is not marked as abstract, meaning that the class is complete and can be used for creating instances.

concrete method

A method that is not abstract, i.e., a method that has been implemented.

dynamic binding

As opposed to static binding, a mechanism that is required for polymorphism, where the compiler generates code to allows a program to determine the address of a method in memory that is invoked for an unknown type, i.e., a polymorphic method.

implementation inheritance

Refers to traditional inheritance, where a class inherits both the interface and the implementation of its base class.

interface

blah blah

interface inheritance

As opposed to implementation inheritance, where only an interface is inherited without any implementation. Usually referred to as a class implements an interface.

operator overloading

Where functionality can be defined for an existing operator, such as arithmetic operators, to allow the operators to apply to custom data types.

polymorphism

Exploiting dynamic binding, allowing two or more objects of different types to respond to the same request. Alternatively can be described as the ability to operate on and manipulate different objects in a uniform way.

sealed class

A class which has been marked/flagged as to not permit any further inheritance, i.e., the class cannot act as a base class for any other class.

sealed method

A method which cannot be overridden further, i.e., the method applies unchanged to any further derived types.

static binding

As opposed to dynamic binding, where the compiler is able to determine the data type for an object at compile time, and the address of those methods are substituted directly for any invocations to those methods.