C# Programming Homework 12

Chapter 12, C# Step by Step

Readings

Read chapter 12 in the C# Step by Step book.

Discussion Questions

Answer the discussion questions in writing.

1. How does inheritance promote the principle of don't repeat yourself (DRY)?

It provides common functionality between classes to avoid excess coding

1. What is the syntax of a derived class that inherits from a base class?

Class DerivedClass : BaseClass

1. Do all user defined types (classes and structs) inherit from some base class? If so, what is it?

Yes and No. All classes inherit from System.Object. The abstract class System.ValueType

1. What happens if you do not have a default constructor in a base class when creating a derived class?

Calls to the default constructor

1. Can you assign a variable of a derived class to another variable of its base class? Why or why not?

Yes.

1. Can you assign a variable of a derived class to another variable of a derived class of its base class

Why or why not?

No because that’s not the way the chain works.

1. Can you assign a variable of a base class to another variable of a derived class? Why or why not?

No because the properties are different.

1. Under what circumstances would you want to use the new keyword when defining a method in a

derived class?

When you want to override the warning

1. What is a virtual method? Why would you want to define a virtual method?

A method that is intended to be overridden.

1. What does override do? Why does it do it?

Provides different implementations of the same method

1. How do you define an extension type?

With the this Keyword

1. Why do you define an extension type?

To extend an existing type with additional static methods

13. (Not in book) Explain the Liskov substitution principle.