C# Programming Homework 17

Chapter 17, C# Step by Step

Readings

Read chapter 17 in the C# Step by Step book.

Discussion Questions

Answer the discussion questions in writing.

1. What is a type parameter?

It’s used to indicate that a class is a generic class

1. What does a type parameter do?

It’s a generic that specifies the types of objects on which they operate.

1. How many type parameters can a generic class have?

Multiple

1. What is the difference between a generic class and a generalized class?

Generic classes uses type parameters and a generalized class is designed to take parameters that can be cast to different types.

1. What is a constraint? How do you specify a constraint?

A constraint limits the type of parameters of a generic class to those that implement a particular set of interfaces and therefore provide the methods defined by those interfaces.

1. What is a generic method? How do you define a generic method?

Is a method that take generic types as parameters or that have a return type that is a generic type.

1. What do we mean when we cay that a generic type interface is invariant?

You can only use the type specified

1. What do we mean when we cay that a generic type interface is covariant?

You can assign an object to a reference as long as there is a valid conversion

1. Does covariance work with value types? Does it work with reference types?

It only works with reference types because value types can not form inheritance hierarchies

1. What do we mean when we cay that a generic type interface is contravariant?

It works in the opposite of covariant.