C# Programming Homework 14

Chapter 14, C# Step by Step

November 6, 2019

Readings

Read chapter 14, pages 305 { 328 in the C# Step by Step book.

Discussion Questions

Answer the discussion questions in writing.

1. What is the difference between a managed resource and an unmanaged resource?

Managed resources are those that are pure .NET code and managed by the runtime and are under its direct control. Unmanaged resources are those that are not.

1. When is memory for an object (reference type) allocated? When is the memory deallocated?

When the object is instantiated. When there is no longer a reference.

1. What is a destructor?

Perform any tidying up that’s required when an object is garbage collected

1. What is the difference in syntax between a constructor and a destructor?

A destructor has a tilde and can’t take parameters

1. Give some examples of scarce resources. Why would you want to manage scarce resources?
2. What is exception-safe disposal?

A way to ensure a disposal method is always called regardless of whether there is an exception.

1. How do you think that the using statement works for resource management? Give an informal, English

language, explanation of how it works.

1. What ill effects could result from attempting to dispose of a resource more than once?

The reference to the resource remains in scope after the finally block.

1. We will look at threads later in the term. For now, what is your understanding of how threads interact

with resource management? A good guess is a sufficient answer to this question.

1. Why does the book recommend not attempting to force the garbage collector? Are their any exceptions

to this recommendation?