

# Homework 14, ISTA-220

Chapter 14, C# Step by Step

July 28, 2018

## 1 Homework

### 1.1 Readings

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

### 1.2 Discussion Questions

Answer the discussion questions in writing.

1. What is the difference between a *managed* resource and an *unmanaged* resource?
2. When is memory for an object (reference type) allocated? When is the memory deallocated?
3. What is a *destructor*?
4. What is the difference in syntax between a constructor and a destructor?
5. Give some examples of scarce resources. Why would you want to manage scarce resources?
6. What is *exception-safe disposal*?
7. How do you think that the *using* statement works for resource management? Give an informal, English language, explanation of how it works.
8. What ill effects could result from attempting to dispose of a resource more than once?
9. 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.
10. Why does the book recommend not attempting to force the garbage collector? Are there any exceptions to this recommendation?