

Homework 07, ISTA-220

Chapter 07, C# Step by Step

1 Homework

1.1 Readings

Read chapter 7 in the *C# Step by Step* book.

1.2 Discussion Questions

Answer the discussion questions in writing.

1. What is a *class*? According to the book, what does a class “arrange?”
2. What are the two purposes of *encapsulation*?
3. How do you *instantiate* an instance of a class? How do you access that instance?
4. What is the default access of the fields and methods of a class? How do you change the default?
5. What is the syntax for writing a *constructor*?
6. What is the difference between class fields and methods, and instance fields and methods? How do you create class fields and methods?
7. How do you bring a static class in scope? Why would you want to bring a static class in scope?
8. Can you think of a good reason to create an *anonymous class*? What is it?
9. What is *polymorphism* as this term is used in computer science? This is not in the book.
10. What is *message passing* as this term is used in computer science? This is not in the book.
11. What was the first object-oriented programming language?
12. Consider this quote by Alexander Stepanov:

I find OOP technically unsound. It attempts to decompose the world in terms of interfaces that vary on a single type. To deal with the real problems you need multisorted algebras — families of interfaces that span multiple types. I find OOP philosophically unsound. It claims that everything is an object. Even if it is true it is not very interesting — saying that everything is an object is saying nothing at all.

Who is Alexander Stepanov? What do you think about this quote?