CSCI 485 Programming Languages
Assignment 7

Due Friday, April 1

1. (20 points) What are the two kinds of abstractions in programming languages? Support your answer using examples in C and in Java.

2. (20 points) What is an *abstract data type*? Afte you provide a formal definition to it, support your answer using an example in C++.

3. (20 points) What are the language design issues for abstract data types? Illustrate your answer using examples in Java.

4. (20 points) What is a friend function? What is a friend class? *Support your answer using examples in C++.* Then, explain why Java does not have friend functions or friend classes?

5. (20 points) What is the fundamental difference between the classes of Ruby and those of C++ and Java? Support your answers using examples in those languages.