1 Introduction

The purpose of this assignment is to get you started learning about the Java virtual machine, bytecode, classfiles, and cvs.

2 Try out SandMark

SandMark source code is stored in a CVS repository at cvs.cs.arizona.edu. To get the source, do the following:

```bash
> cvs -d :ext:MyLogin@cvs.cs.arizona.edu:/cvs/cvs/wmark \\
   checkout -P smark2 smextern smapps2 smbloat smbin
```

where MyLogin is your normal (lectura) account name.

Compile and run SandMark according to the installation instructions in the SandMark manual.

3 Viewing Classfiles

Write a small Java program. Compile it. View the bytecode using

1. javap,
2. cck (BCEL’s Class Construction Kit), and
3. BCEL’s listclass.

Appendix A of the SandMark manual describes how to use these tools.

4 Writing Java bytecode

Write a small program in bytecode. It doesn’t have to do anything particularly interesting, but it should—at the very least—do some arithmetic, print something out, and make a method call.
Use the Jasmin assembler to convert the assembly code to a classfile. Run the program. Examine the classfile using javap.

Appendix A of the SandMark manual describes how to invoke Jasmin.

5 Adminstrivia

This assignment is due Thursday, January 17. It is worth 1% of your final grade. To submit, email me (collberg@cs.arizona.edu) the Java assembly code you wrote.

This is an individual assignment!