

## Program 2: Due 9/13

Write a program that takes a file name as input, reads the file in XML format, and loads the contents of the file in a DOM object. Provide a simple command line interface to print the contents of the document (by traversing the DOM object), explore the contents, and modify the elements. You may use the JDOM parser example as a starting point. Your command line interface should respond to the following commands, any of which may be abbreviated to a single character:

SHOW	print the contents of the current element
CHANGE param value	change the <param> of the current element to value
WRITE filename	write the DOM object to an XML text file
NEXT	output the contents of the next element
PREVIOUS	output the contents of the previous element
EXIT	quit the program

The input XML files will have limited nesting. The general layout will be

```
<object_type>
  <parameter_name> value </parameter_name>
  ...
</object_type>
```

There may be any number of object\_type's in the file. Each may have any number of parameter\_name's. Here's an example.

```
<Student>
  <Name> Jose </Name>
  <Rank> Freshman </Rank>
  <GPA> 0.0 </GPA>
</Student>
<Student>
  <Name> Alma </Name>
  <Rank> Senior </Rank>
  <GPA> 3.49</GPA>
</Student>
<Grade>
  <Name>Jose</Name>
  <Assignment>Exam1</Assignment>
  <Value>100</Value>
  <LetterGrade>A</LetterGrade>
</Grade>
```

On startup, your program should read this file and print:

```
Student: Name=Jose, Rank=Freshman, GPA=0.0
if you enter "C GPA 2.1", your program should respond with
Student: Name=Jose, Rank=Freshman, GPA=2.1
```

If you Write the file, the changes should be written to the specified file.