

## Homework #6 Lexi, Iterator, and Visitor

**Issued:** Thursday, April 18

**Due:** Thursday, April 25

### Purpose

This assignment allows you to learn about the Iterator(257) and Visitor(331) design patterns. You should also use Command(233). By using Iterator(257), you will be using FactoryMethod(107) implicitly.

### Assignment

Design (in UML) and implement (in Java) the Textual Analysis part of the Lexi editor, as described in Section 2.8 of our textbook. Rather than spell-checking and hyphenation, add a Command to compute the set of “words” in a Glyph structure, and write them to `System.out`.

### Notes and Suggestions

- Use the design suggestions from our textbook.
- Use the Java code in:

`pub/hw5`

There is no new code for this assignment.

- As usual, casting is prohibited!
- As usual, indicate with a comment at the top of each source file, the relevant patterns and participants.
- Store the new Command in your KeyMap, under “w” for words.
- Glyph iterators make `Glyph.child()` obsolete. Remove it.

- Use the PreorderIterator developed in lecture. Graduate students must make this class reusable! You may want to research Java 1.5 generics in more detail. For example:

`pub/assignments/hw6/generics-tutorial.pdf`