Homework #2 Lexi and Decorator

Issued: Thursday, February 22
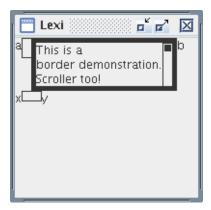**Due:**   Tuesday, March 12

Purpose

This assignment allows you to learn about another design pattern: Decorator(175).

Assignment

Design (in UML) and implement (in Java) the Embellishment part of the Lexi editor, as described in Section 2.4 of our textbook. Add borders and scroll bars.

Test your solution with a simple graphical demonstration. For example, these are the results of my tests:

Notes and Suggestions

- Use the design suggestions from our textbook. In particular, think carefully about your inheritance hierarchy: What is the superclass of Embellishment? Is it Glyph, CompositeGlyph, or Composition?

- Use the `Window` interface and `SwingWindow` implementation in:

  pub/hw2

  You can remove the packaging stuff, at the top, if you wish.

- Use fancy constructors to simplify your main class. For example:

```
14  public Row(String string, Window window) {
15    super(window);
16    try {
17      for (int i=0; i<string.length(); i++)
18        insert(new Character(string.charAt(i)));
19    } catch (GlyphException e) {
20      System.out.println(e);
21    }
22  }
```

```
14  public Column(String[] strings, Window window) {
15    super(window);
16    try {
17      for (int i=0; i<strings.length; i++)
18        insert(new Row(strings[i],window));
19    } catch (GlyphException e) {
20      System.out.println(e);
21    }
22  }
```

- Test your code thoroughly. For example:

  border.insert(new Row("Scroller too!",window));

- As usual, casting is prohibited!