

Project 2: An Enhanced Shapes Package

September 22, 2016

Introduction

Your boss is pleased with the work you did on the hierarchical chart application. He now wants to be able to make flowcharts as well. This will entail adding a few features to your application, including some new shapes and arrows. He also wants to be able to remove elements from his drawing by clicking on them. See full details in the Tasks section below.

The third-party vendor whose software you are using in your application has released a new version that you are to use for your enhancements. The new version allows you to do the following things:

1. set an initial size for the drawing window
2. resize the drawing window
3. set foreground colors
4. set background colors
5. handle mouse events

See the javadoc for details. To use many of these new features, you must extend the `SimpleDrawing` class from your third-party vendor and override the relevant methods. `SimpleDrawing` implements both `ComponentListener` and `MouseListener` and adds itself as the listeners for the appropriate events. If you extend `SimpleDrawing`, you will get the listeners for free. The new event handling methods are piggy-backed onto (wrap) the corresponding methods in the `javax.swing` package. You can get further information on how to use them there.

Tasks

1. Draw upward and downward pointing triangles. Triangles may have any shape you like.
2. Draw circles.
3. Draw parallelograms. Parallelograms may have any shape you like.
4. Draw diamonds. Diamonds may have any shape you like.
5. Draw arrows.
6. Remove elements that are clicked on from the drawing.
7. The user should be able to specify elements outside of the current dimensions of the drawing window. Your application should make these visible when the window is resized to include

any elements whose coordinates are inside the resized window. This includes showing partial elements that overlap the edges of the window.

8. Keep a log of what changes you needed to make to each component of your application as you develop your enhancements.

Submission

The assignment is due Thursday, October 6, at midnight. Place all your source files, a pdf of your change log, and any other documentation in a folder, zip it, and submit via Moodle.