Introduction Document for Week8 Hand-In Assignment

This project contains 3 public classes:

1. ShapePanel
   1. This class, which extends JPanel, serves as the blueprint of the panel, on which a line, oval, or rectangle are drawn.
   2. Contains instance variables for:
      1. Line start and stop coordinates with the data type of integer:
         1. x1, y1, x2, y2
      2. Oval and rectangle values with the data type of integer:
         1. Upper left corner coordinates, represented by x,y.
         2. Width and height of the shape.
      3. Shape, which is of type String, and is used to tell which shape will be drawn on the JPanel. It will either be “line”, “oval”, or “rectangle”.
   3. Contains public methods:
      1. setCoordinates()
         1. Used to set the values of the instance variables above. If the values given are not valid (0 <= value <=500), then it will set it to zero.
         2. Values set depend on the shape variable.
      2. paintComponent()
         1. Draws the shape, given the shape type and dimensions.
2. Assignment8Driver
   1. This class is used to create an instance of the ShapePanel class.
   2. Extends the JFrame class, and places a ShapePanel inside it.
   3. Contains instance variables:
      1. JLabels, JPanels, and JTextFields for:
         1. Necessary coordinates and dimensions for the shapes to be drawn.
   4. Contains the private method:
      1. displayInvalidInputMsg(), which takes as argument a message, and displays it in a JOptionPane window. Executes if the user gives invalid values (non-integers).
   5. Contains public methods:
      1. askUserForLineInput(), which executes if the user selects line from the draw menu.
         1. Input is given through JOptionPane dialog box.
      2. askUserForInput(), which executes if the user selects oval or rectangle from the draw menu.
         1. Input is given through JOptionPane dialog box.
   6. Menus are created:
      1. fileMenu, which contains:
         1. About, which if selected displays that this application is Assignment 8, written by me.
         2. Exit, which if selected, exits the program.
      2. drawMenu, which contains the selections
         1. Line, oval, and rectangle.
      3. All menus items have their own anonymous inner class named ActionListener, which is used within their respective addActionListener() method.
3. Assignment8Driver
   1. This class is used to create an instance of the Assignment8App class.
   2. The size of the JFrame created is specified.
   3. When the JFrame is closed, the program exits.

Screen shots:

















