## **Object-Oriented Software Development** Project 3 – Due: Tuesday, February 28

Write a Java application that implements a simple Etch-a-Sketch panel on which the user can draw figures with straight lines.

The surface begins all white. When the user presses one of the four arrow keys, a pink box moves across the surface, leaving no mark in its wake. When the user presses one of the four arrows keys with the shift key down, the moving box is blue, and it paints a blue line as it moves. Make the boxes 10 pixels by 10 pixels. Draw the instructions on the panel.

Here is a picture of a simple drawing made with the program.

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| Use arrow keys to move about on the surface.<br>Hold the shift key down to draw on the surface with the arrow keys.<br>Your drawing will be erased if you resize the window. |    |
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The keystrokes can be captured by creating a KeyListener object that overrides the method

```
public void keyPressed(KeyEvent ke)
```

Inside that method you recognize the keystrokes using methods and constants from the KeyEvent class.

int code = ke.getKeyCode();

Useful Boolean expressions:

| code == KeyEvent.VK_UP    | // true if up arrow pressed    |
|---------------------------|--------------------------------|
| code == KeyEvent.VK_DOWN  | // true if down arrow pressed  |
| code == KeyEvent.VK_RIGHT | // true if right arrow pressed |
| code == KeyEvent.VK_LEFT  | // true if left arrow pressed  |
| ke.isShiftDown()          | // true if shift key is down   |

Turn in a listing of your program and submit your source file with a comment at the top with your name.

Your program will be graded based on its correctness, clarity, and the overall design of the program.