1. Declare a subclass of JPanel named MyColorChooser that provides three JSlider objects and three JTextField objects. Each JSlider represents the values from 0 to 255 for the red, green and blue parts of the color. Use these values as the arguments to the Color constructor to create a new Color object. Display the current value of each JSlider in the corresponding JTextField. When the user changes the value of the JSlider, the JTextField should be changed accordingly. Use your new GUI component as part of an application that displays the current Color value by drawing a filled rectangle.

2. Modify the MyColorChooser class of exercise 1 to allow the user to enter an integer value in the JTextField to set the red, green, or blue value. When the user presses Enter in the JTextField, the corresponding JSlider should be set to the appropriate value.

3. Modify the application of exercise 2 to draw the current color as a rectangle in an instance of a JPanel which provides its own paintComponent method to draw the rectangle and provides set methods to set the red, green and blue values for the current color. When any set method is invoked, the drawing should automatically repaint itself.

4. Modify the application in exercise 3 to allow the user to drag the mouse across the drawing panel (a subclass of JPanel) to draw a shape in the current color. Enable the user to choose what shape to draw.

5. Modify the application in exercise 4 to provide the user with the ability to terminate the application by clicking the close box on the window that is displayed and by selecting Exit from a File menu.

Turn in a printed copy of your source code and screen captures of your programs executing. You do not need to turn in any of my code, unless you have modified it.