For this project, you will create a GUI drawing application.

* Note that there is code for a sample drawing application in the textbook. You might use that as a reference, but the requirements for this assignment are different.
* Your drawing application should function as follows:
  + The user can select from three different pen colors.
  + The user can also select an "eraser" pen.
    - Hint: Do you really need to "erase" a point? Or is there a shortcut you can use?
  + When the user clicks in the drawing space, the pen is activated. The user can then move the mouse to draw. The user clicks again to de-activate the pen.
    - Note: the user **does not** click-and-drag to draw. Instead, it's click once to turn on, move to draw, click once to turn off.
    - Make sure you test that your program works when you change the color of the pen!
  + There is a clear button that clears the entire drawing space.
* You need to keep track of both the location and color of a point on which the user has drawn.
  + You will likely use an ArrayList to keep track of this.
    - What kind of object should the ArrayList hold? Does Java provide a class that represents a Point with Color?
  + For full credit, design an **object-oriented solution** to keep track of an object with a location and a color.
  + For full credit, do not use double-buffering. Use the approach of keeping track of points instead. (We don't cover this in our course, so if you don't know what this is, don't worry!)
* I have provided an executable jar sample file.

**Extra Credit**

20 points extra credit: Include an additional drawing functionality. This must be different from simply choosing another pen color- that will not count for any extra credit. Be creative!!

Submit a zip file containing your java file(s). Include your name in the name of the zip file. If you are working in a group, submit only one assignment. Put the names of all group members in the comments of each java file.