

Project 2: Regression Line Plotter

CSC 1351, Spring 2006

Due: 2 March 2006

Design and implement a program for plotting a regression line as described in Project 12.2 on pages 464–465 in the textbook. Implement a user interface with a `JComponent`, in which your program records the coordinates of mouse clicks and draws a regression line as explained in the book. For drawing the line, you could use an object of class `java.awt.geom.Line2D.Float`.

Also draw the clicked points themselves (e.g., as tiny rectangles) and include a button in your window to clear the regression line, the points, and all the values calculated from the mouse coordinates. For drawing the points themselves, your `JComponent` needs to keep track of an `ArrayList` of all the points that need to be drawn.

Caution: the formula for calculating the slope of the regression line involves division. Be careful not to divide by zero as this would result in an `ArithmeticException`.

Administrative Stuff

Put your files in the directory `~/prog2` in your `cs1351xx` account on `byte` and submit it using

```
~cs1351c/bin/r_copy 2
```

Your main program should be in class `Main`. For simplicity, keep all the classes in the default package (i.e., don't use package declarations). Also submit a `README` file in which you describe how you designed your code and what the functionality of the user interface is.