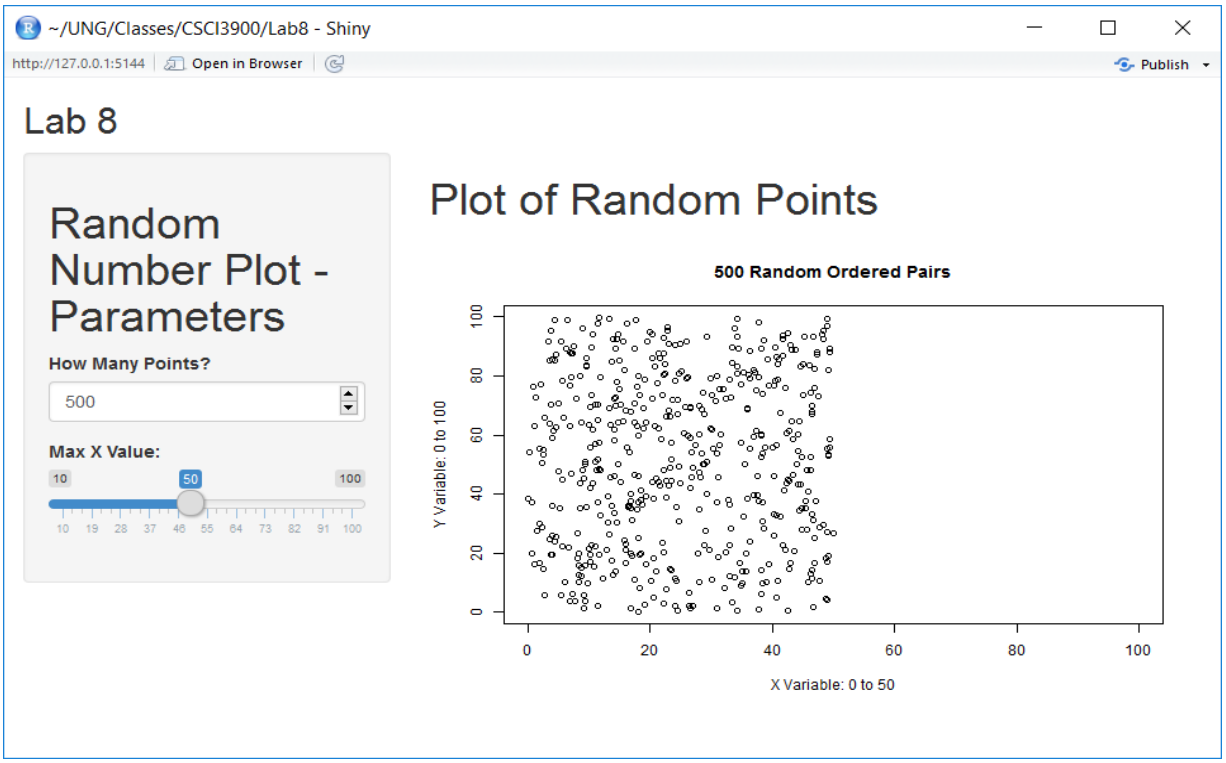
CSCI 3900C Lab #8 (40 points)

Write a simple shiny app that meets the following minimum requirements:

1) Display a scatterplot of random numbers that automatically updates using two input values from the user:
    a. A numericInput that specifies how many points
    b. A sliderInput that specifies the *range* for either the x or the y coordinate
2) The input for number of points should have possible values between 0 and 500, which can be changed in increments of 50 by clicking the up/down arrows.
3) The method for generating the random values is up to you; the example shown below uses random values from uniform distributions. You may generate random values from any distribution you choose (e.g., uniform, normal, exponential).
4) The range of values for one coordinate will remain the same; the example shown below generates y values that are always between 0 and 100.
5) The range of values for the other coordinate will be determined by your slider input. The options you choose for the slider input will depend on the type of distribution you will use to generate the random values. The example below generates x values that are between 0 and some positive maximum; the maximum can vary from 10 to 100, based on the slider.
6) The upper and lower bounds of the x-axis and y-axis on the plot should remain fixed at an appropriate scale, so that it is evident when the range of coordinates has changed.
7) The title and axis labels on the plot should be updated to represent what has changed.

Submit your complete R script(s) to the Lab 8 Dropbox. If you used the 2-file solution, place both files into a compressed (zip) folder and submit the zip file.

Example screens from a working app:



(see next page)

~/UNG/Classes/CSCI3900/Lab8 - Shiny

http://127.0.0.1:5144 | Open in Browser | Publish

Lab 8

Random Number Plot - Parameters

How Many Points?

150

Max X Value:

10 80 100

10 19 28 37 46 55 64 73 82 91 100

Plot of Random Points