

# Lab 07: Java Graphics

(Bonus lab)

In this lab, we'll be practicing what we learned about GUIs, and Mouse events. You will need to implement the following:

- A GUI with a drawing panel. We can click in this panel, and you will capture those clicks as a Point (see `java.awt.Point`) in a `PointCollection` class (you need to build this).
  - The points need to be represented by circles.
- Below the drawing panel, you will need 5 buttons:
  - An input button to register your mouse to the drawing panel.
  - A show button to paint the points in your collection on the drawing panel.
  - A button to shift all the points to the left by 50 pixels.
    - The x position of the points is not allowed to go below zero.
  - Another button to shift all the points to the right 50 pixels.
    - The x position of the points cannot go further than the

You can implement this GUI in any way you choose. I suggest using the `BorderLayout` for a panel containing the buttons, and a `GridLayout` to hold the drawing panel and button panels.

Regardless of how you choose to implement this though, you'll essentially need to create a single public subclass of `JFrame`, and then create inner classes for the drawing and button panels, then add action listeners for the various buttons.

## Grading Criteria:

Style/submission guidelines: [https://gmierzwinski.github.io/bishops/cs321/style\\_guidelines.html](https://gmierzwinski.github.io/bishops/cs321/style_guidelines.html)

<b>Comments, Formatting, &amp; Readability</b>	<b>5 Marks</b>
<b>Submission Guidelines</b>	<b>5 Marks</b>
<b>Program</b>	<b>30 Marks</b>
<b>Total</b>	<b>40 Marks</b>