

## Zoom.java

### Phase one:

Write a JFrame that displays a Panel that shows an Image. It is advised that the Image is small in size (<1 MB) so you don't require a media tracker to load it. Use the simplest version of drawImage() for this work.

### Phase two:

Make the JFrame hold a second Panel of equal size to the first one, to the right of or below the first one (use Grid Layout).

Add listeners and interactive components to your Panel that shows the original Image. Use these listeners and interactive components to zoom in on part of the image, showing that image in a second Panel that the JFrame holds. Show this zoomed image by using the most complex version of drawImage(). You could use at least one kind of listener and at least one interactive component to:

- Pick what part of the image to zoom in on
- Decide how much to zoom
- Execute the display of the zoomed image

You can use any listeners and interactive component(s) we have learned about in class. Do not use listeners, interactive components, or methods not taught in class.

For instance, either of these could be done:

- Identify a region by clicking, dragging, then releasing a mouse, and then upon pressing a button, trigger drawing of the zoomed image.
- Choose to use a scrollbar to specify how much to zoom, and then click a checkbox to create the zoomed image (centered on a constant point so only so much is visible in the panel).
- Use text fields to specify corners of the image to zoom on, and then use a menu item to select the ratio of original to zoomed image.
- Use a radio button in a group of four to specify the quadrant of the image to zoom in on, and then use up arrow on the keyboard to zoom 10% at a time.

Be sure to add pseudocode and a testing plan. Pseudocode should indicate how the program overall works, then there should be code next to every method or conditional block to indicate what it does (in detail). **PSEUDOCODE SHOULD BE WRITTEN AT THE BEGINNING OF THE PROGRAMMING PROCESS.**