Exercise 4: Creating Classes

CS 116

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1. Take a look at the file `Lesson4.java` from the web page. Create a `Lesson4` project and try it out.

2. Create a second `MyPanel` object in your applet which will appear on the right or "east" border of the applet.

3. Change the `MyPanel` class so that the constructor takes 4 `String` arguments which specify the labels of the four buttons. Change the applet so that the buttons on the first panel are still labeled "1", "2", "3", "4" but the buttons on the second panel are labeled "A", "B", "C", "D". Notice that all that changes in your applet is how you call the constructor for `MyPanel`.

4. Add another class called `MyCanvas` which extends the `Canvas` class. (A canvas is a container which has a `paint` method with which you can add graphics.) Your class should have a constructor function which simply sets the canvas background to yellow. Your class should also have a public paint method which draws a red circle somewhere on the canvas. Now in your applet, create a `MyCanvas` object and add the object to the center of the applet. (Look up how you add to the center with the `BorderLayout`.)

5. Change `MyCanvas` so that the circle is always drawn in the center of the canvas (even when the canvas is resized!). To do this you need to determine the size of the canvas within the `paint()` method. The method `getSize()` returns a `Dimension` object indicating the size of the container.

   Look up the `Dimension` class in the documentation and see if you can figure out how to do this more challenging problem.