■ What did we talk about last class?
■ Do you have any questions about the reading?
■ Do you have any questions about the assignment?
■ What is a GUI? What types of things do you do with GUls? What do you build GUls out of?
Java actually contains two GUI libraries in the standard distribution. Your reading was for the Swing library as that is what we will be using this semester in class. However, the original GUI library in Java was the AWT library. Swing is built on AWT and for that reason we will still be using aspects of AWT in this class.

Swing is found in the javax.swing package and other packages beginning with that. AWT is found in java.awt and those descended from it.

Swing is generally considered the main library you should use now for Java. Most of what you do in the two is that same so it won't matter.
The GUI libraries have some of the most prolific use of inheritance of anything in Java. One could argue that they use it too heavily as the inheritance hierarchies can be quite deep.

Everything that you add into a GUI inherits from java.awt.Component. One of the things that inherits from it is java.awt.Container.

Everything in Swing inherits from javax.swing.JComponent which happens to inherit from java.awt.Container.

Let's look at the API at some of the things that are in there.
How are you supposed to specify where things go in a Java GUI?

I want you to write code that will bring up a window and allow a user to input the values specifying a rectangle (x, y, width, height). It should have a button labeled done. For today you won't have it actually do anything, just pop up and allow you to type in values.
For extremely simple input tasks and notifying the user of significant events you can use the JOptionPane class. This has quite a few static methods in it that will pop up little dialog boxes.

We will often use the showMessageDialog in order to notify the user of things. We'll use the input methods a lot less.
At this point we are going to move away from doing code in small little programs when we code together and instead move to a larger project so that you can see some of the benefits of OO programming and design outside of your game project.

The program that we are going to write is a drawing program. In some ways it is like Paint, but the functionality will be a bit different. Instead of drawing single objects we will have a scene graph of objects.

We'll start coding the GUI for this today.
■ Remember that assignment #3 is due today.
■ One of the advantages of the fact that “From C to Java” is in text instead of just being me talking is that you can go back and reread sections. You should strongly consider doing that as there are details that you inevitably missed the first time through.