Setting Up The Programming Environment **for Eclipse** CSIS-2420

- Create a folder called `algs4` (e.g. C:\Users\yourUserName\algs4)
- Copy the 2 jar files `algs4-package.jar` and `stdlib-package.jar` in the newly created folder
- Optional: download sample data
  algs4-data.zip includes data files that are very useful for testing code.
  Some of these data files are small, others are large, some are huge. If you want you can download all of them now or you can download selected datafiles as we will need them over the term.
  If you want to download them right away do the following:
  Go to http://algs4.cs.princeton.edu/code/
  Search for (CTRL F) algs4-data
  It'll take you to a link to download algs4-data.zip
  Copy `algs4-data.zip` in the newly created `algs4` folder and unzip it, so that you'll have a subdirectory `algs4-data` with all of the data files used in the textbook (you'll need them for testing) When you are done delete the zip file

- Create a workspace for this course (optional)
- Create a Java Project called Exercises
- Create a package called `test` with a class called `Test.java`, that prints *Hello World*
  Run the program and verify that it works.

- Create a second file called `TestAlgs4.java`
- Copy paste the following code into your class:
  http://algs4.cs.princeton.edu/windows/TestAlgs4.java.html
- The code won't compile because TestAlgs4 uses classes from the jar files that we downloaded but the Java project doesn't know how to find them.
  In order to make the classes accessible we need to add the jar files to the build path
- Right click the project Exercises > BuildPath > Configure Build Path
  Click the tab *Libraries* > Add External JARs
- At this point there are still red wiggly lines.
  Roll over `StdOut.` Eclipse will provide multiple quick fix options. Choose the one that imports StdOut from the Princeton course. Do something analogous with the other missing imports.
- Run the code. You see a gui with 2 concentric circles.
  There is also an IllegalArgumentException because the file name doesn't exist.
- Import a small image of your choice and adjust the file name. Then run it again

- Get familiar with Stdlib.jar
  Create a file called DemoInputOuput.java.
  Import the content from the java file with the same name. It shows you how to read user input, print to the screen, and how to read to and from a file

- If there is some time left write a small sample program that uses file input and/or output.