CS 444 - Project 1 - Stage 1

* There actually seem to be a NUMBER of ways leJOS pieces can work or work together -- here's our simplest FIRST approach:
  * on a workstation, type in a leJOS application class (a class with a method `public static void main`) using Notepad++ or some "plain" text editor
  * on a workstation in BSS 315 -- using powershell -- compile the leJOS application class and then link it using leJOS commands
  * transfer the appropriate resulting program file from the workstation to an NXT brick using a USB cable
  * execute that program file on the NXT brick

program specifications for Project 1 - Stage 1

* write a leJOS program in source code file `HelloTeam.java` that outputs all 3 of your names to an NXT brick's screen, and continues to do so until any of the NXT brick's buttons are pushed
* follow class coding standards, including use of javadoc-style comments for each class and method
* make sure ALL of your names are in the `@author` comment in the class javadoc comment

EXAMPLE leJOS application class - `Hello444.java`

```
import lejos.nxt.*;

/**
 * see if leJOS NXJ is working -- try to
 * display "Hello Spring 2015 CS 444" on connected Lego
 * NXT brick's screen
 *
 * @author www.lejos.org
 * @author adapted by Sharon Tuttle
 * @version 2015-01-27
 **/

public class Hello444
{
    /**
     * see if leJOS NXJ is working -- try to display
     * "Hello Spring 2015 CS 444"
     * on connected Lego NXT brick's screen
     **/

    public static void main(String[] args)
    {
```

```
        System.out.println("Hello Spring 2015 CS 444");
        Button.waitForAnyPress();
    }

}
```

compiling and linking on a BSS 315 workstation

* log into a workstation in BSS 315
  * account: `student`
  * password: `netlab1!`
* go to the E: drive and create a folder containing your team name and number (e.g., `team1` or `team7` etc.)
* use Notepad++ or some text editor available on that BSS 315 workstation to create your source code file `HelloTeam.java` within your team folder on the E: drive
* go to the Start button in the lower-right, and type:

  `powershell`

  ...and select "Windows PowerShell" from the probably-3 choices to start up a Windows PowerShell
* in PowerShell:
  * type:

    `e:`

    ...to go to the E: drive, and

    `cd teamX`

    ...to go to your team folder on the E: drive (replace X with your team's number)
  * compile your leJOS class:

    `nxjc HelloTeam.java`
  * link your leJOS class to what it needs:

    `nxjlink -o HelloTeam.nxj HelloTeam`
  * connect your NXT brick to your workstation using the USB cord
  * push the orange button on your NXT brick
  * in PowerShell, type:

    `nxjupload -r HelloTeam.nxj`

  ...if you see your program's output on your NXT brick's screen, it has been uploaded to your brick and executed!

running your loaded program from the NXT brick

* now... to check that your program is ON the brick, and to run it FROM the brick:
  * push the center orange button -- you should get initial leJOS screen shortly followed by its "home" screen
  * push the right-arrow button to highlight the files icon
  * push the orange button to "open" the files icon
  * push the right or left arrow buttons as desired to select the desired file
  * push orange button to open the selected file
  * push orange button to execute that program
  * (and push any button, in THIS program's case, to END that program!)

completing Stage 1

  * once you have created and entered your program, compiled it, linked it, uploaded it to your team's NXT brick, and confirmed that it works as desired

    (backtracking as needed until you have a suitable working program on your brick...! 8-)),

    * write your team name on the NEXT list on the white board
    * I'll look over your source code to see if it meets the specifications (style AND actions), and CHECK OFF that it does so
    * you'll SHOW me your running program on your NXT brick, and I will CHECK OFF that I have SEEN it running successfully
    * one of you will COPY the final version of source code file `HelloTeam.java` to a flash drive, and the TEAM will go into BSS 313, transfer it to nrs-labs and SUBMIT it using `~st10/444submit` a homework number of 11 --

    ...and NOW you have completed STAGE 1 of PROJECT 1.

* ASK ME what you should do next...