

CS141, Homework 1  
Due: Wed, Sept 10 at 2:59PM

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**Part I:** We want to make sure that you are getting comfortable with the “tools of the trade”. We want you to have familiarized yourself with the CS computing environment. This is essentially on the honors system -- you will confirm that you have completed each of the items below. Your confirmation will be in the form of a readme file to be submitted together with your program for part II.

1. I have registered for the CS141 piazza page.
2. I am able to remotely login to the CS department servers -- `bert.cs.uic.edu` using my personal computer. This may be through `putty` or similar tool on a Windows machine or by running `ssh` from the shell on a mac.
3. I am able to transfer files between my personal machine and the department machines using a tool such as `WinSCP` or `sftp` (mac/unix shell).
4. I have changed my CS account password so that it is no longer my UIN. To do this, you do the following:
  - Connect to `bert`
  - Run the `yppasswd` program from the shell and follow the directions
5. I can do all of the following basic UNIX operations from the shell:
  - Navigate the directory system
  - Create directories
  - Move and copy files
  - Edit and save text files
  - Compile and run a C program
6. I have successfully used the Proquest/Safari system to access and read the available texts for the class.

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**Part II:** You will write a C program called `stairs` which does the following when run:

- Prompts the user to enter an integer `n`
- Displays an “up” staircase with `n` steps
- Displays a “down” staircase with `n` steps
- Displays an “up-down” staircase composed of `n` levels: up followed by down (see example below).

```
./stairs
enter number of stairs: 3
up:
```

```

    X
   XX
  XXX

down:

    X
   XX
  XXX

up-down:

    X
   XXX
  XXXXX

goodbye.

$
```

What to do:

Download the files:

- simpleio.h, simpleio.c
- stairs.c (this is just a template for your program)
- makefile
- readme (this is for part I)

Write and test your program (by modifying stairs.c). You can compile your program simply by typing:

```
$make stairs
```

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### Submission:

You will submit your assignment through Blackboard. Details forthcoming.