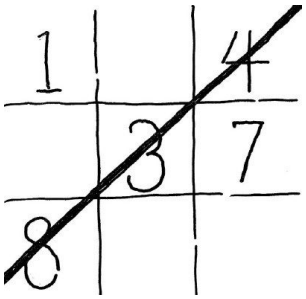
CISC 3110

Project 1: Tic-Tac-Math Implementation



You've already made some design decisions for this project, organizing functions into modules. Now, implement those functions (obviously including a `main()` function!)

How To Submit

Your code is due at the beginning of class on Class 11; we will be doing a code review then.

Bring to class one hardcopy of

- all your `.h` and `.cc` files
- your `makefile`
- output of your program (see page 2 for info about printing, etc.)

Please make sure these are all bound together with a staple or very sturdy paper clip—I do *not* provide office supplies.

As you've had a good few weeks to practice with Linux, vi, and emacs, I expect you to do all your editing in `vi` and/or `emacs`, and to use `g++/make` as your compiler. (You should expect an exam question having to do with how these tools are used in the software development process—easy to answer as long as you've had some experience.)

Grading

I will grade Project 1 as follows:

5 points for bringing code on Class 11
5 points for reviewing code on Class 11

And 20 points(maximum) for the code itself, as follows:

4 Using Linux, correctly printed code and output
4 Design
4 Documentation/comments
4 Style
4 Correctness/Efficiency

Please review the C++ Style Guide to understand what I expect for documentation and style.

Printing and Output

Be sure all your files contain your name; this is, of course, most easily done with a comment.

Your code will be more useful with line numbers; you can do that with the `nl` command. For example,

```
$ nl helloworld.cc > helloworld.cc.nl
```

will produce a text file called `helloworld.cc.nl` that has line numbers on the left margin.

The easiest way to capture the output of your program is with the `tee` command, which copies its input to standard output AND to a file (like a "T"-shaped pipe). So, if your executable is called `tictacmath`, this command

```
$ tictacmath | tee tictac.output
```

will create a text file called `tictac.output` that contains all of your program's output. Note that your *keyboard input* will not appear in the output; this is why it's often a good idea to *echo* the input in the output ("Your move was xyz, so now the board looks like ...").

How to print your files? If you're using vagrant on your personal computer, remember that your `/sync` folder is shared between vagrant and the "host" operating system. You can just print your files directly from your computer (you *may* need to add `.txt` to the filenames in order to get the OS to treat these as text files and preserve your formatting). If you're working from the Linux lab machines on campus, you can use the College's new Papercut system (the same that the Library uses); ask for instructions at the WEB building. Alternatively, you can use `sftp` (part of the `ssh` family of software) to copy your files from the remote Linux machine to your personal computer for printing that way.

Feel free to print double-sided.