Lab 10
Weather stats

10 November 2015

The drill this week will give you some practice with using `getline` and with stringstreams. The idea is that the data file represents a log file or diary, one entry per line, and your program can then process it. Come to lab on Tuesday either with it completed or with a specific written question in your notebook identifying which drill step you got to and what about it you're stuck on.

1. Start by creating a test file that has at least five lines in the format

   ```
   11 5 Got up early, feeling good!
   11 5 Finished a bunch of work in the afternoon
   11 6 Overslept my alarm. :(
   ```

   Each line should start with a month and day, and then the rest of the line has a short message.

2. Write a program that reads each line of the input, as long as there's input, and prints how many lines there were in the log file. Note that we can put a `getline` call into a `while` condition just like we could with `>>`:

   ```
   while (getline(cin, line))
     //...
   ```

3. Modify your program to print just the dates on which a log file entry was made. To do this, you'll make an `istringstream` to process the line—similar to the code we wrote in class—and then from the line, read the two numbers (month and day) into int variables.

4. Modify your program to reformat the input into the following output format:

   ```
   11/05:  Got up early, feeling good!
   ```

   Note that the way you can get the "rest of the line" in the stream is to make a call to `getline` using your stringstream instead of `cin`.

5. Modify your program to only print the *first* log entry from a particular day. You can assume all the dates are in order already; this will thus involve remembering what date was used in the previous line, and only printing if the current line has a different date number.

6. Modify your program again so that if there are multiple log entries for a particular date, it prints the first one followed by

   ```
   (subsequent entries omitted)
   ```

   It should only print that message once per date, even if the date has more than two total entries.