# Announcements

- **Assignment 5 due Friday.**
- **Assignment 6 out Friday as well.**
  - Due on March 6th, just before midnight.
  - The assignment has you build a network application—something called a proxy—that happens to function as a server and a client at the same time.
  - You'll need to understand virtually everything we've discussed over the course of the entire quarter, because your final product deals with the filesystem, signals and signal handling, C++11, anonymous functions with capture clauses, concurrency, and networking.
  - Much of the legwork is being managed by your Assignment 5 **`ThreadPool`** class, which is why I actually broke the **`ThreadPool`** out into its own assignment.
- **Today's Agenda**
  - Implement the **`time-client`** application, and in the process learn how to establish bidirectional file descriptors that act as pipes bridging computers.
  - Implement the **`web-get`** client application to emulate the **`wget`** built-in.
    - Implementation of **`web-get`** requires we both read and write from an **`iosockstream`**, which itself layers over the socket descriptor returned by the **`createClientSocket`** function we'll first write for the time client.
    - Implementation of **`web-get`** requires we understand a little bit of the HTTP protocol.
      - I'll cover the HTTP protocol in lecture, not only because we need to implement **`web-get`**, but also because your Assignment 6 HTTP proxy requires you understand the protocol fairly well.
      - The HTTP protocol is discussed in Sections 11.5 and 11.6 of your B&O textbook, so give it a good read.
  - Once we implement **`web-get`**, we'll march onward and write our first server.
    - We'll keep the server-side computation simple and focus more on the socket API directives.
    - I'll also explain why threading and networking go hand in hand.
  - No new examples in today's slides, as we have tons of material from previous slide decks to work through.