Week 5 Lecture:
Interlude: Python Web Programming (kind of)

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6.009: Quiz Logistics

Quiz 1 is this Wednesday.

Rooms:

- Last (Family) Name starts with A-D: 10-250
- Last (Family) Name starts with E-P: 50-340
- Last (Family) Name starts with Q-S: 34-501
- Last (Family) Name starts with T-Z: 34-101

No office hours Wednesday night (9 March)

No office hours Thursday morning (10 March)
What Is a Web Application?

What does a web application do?

- **Receive request from user**  
  (show me a page, submit this answer, etc)
- **Find relevant information**  
  (page content, user info, history of submissions, etc)
- **Log new information if necessary**, and
- **Send response**  
  (typically, HTML to be displayed in the browser)
The World Wide Web

https://www.ntu.edu.sg/home/ehchua/programming/webprogramming/HTTP_Basics.html
Sockets

Sockets allow communication across processes (on the same machine or different machines).

Typically, a server will wait for a client to make a connection on a designated port (a virtual endpoint for a connection).

Once the client connects, the socket allows for communication between the server and the client.

Client and server can each send/receive data via the socket.

Example: yelling echo server.
The Rest of Today

Designing a:

- Web Server
- Web Application Framework
- Web Application
HTTP Request and Response

GET /doc/test.html HTTP/1.1
Host: www.test101.com
Accept: image/gif, image/jpeg, */*
Accept-Language: en-us
Accept-Encoding: gzip, deflate
User-Agent: Mozilla/4.0
Content-Length: 35

bookId=12345&author=Tan+Ah+Teck

HTTP/1.1 200 OK
Date: Sun, 08 Feb xxxx 01:11:12 GMT
Server: Apache/1.3.29 (Win32)
Last-Modified: Sat, 07 Feb xxxx
ETag: "0-23-4024c3a5"
Accept-Ranges: bytes
Content-Length: 35
Connection: close
Content-Type: text/html

<h1>My Home page</h1>