Lecture 2: socket programming and HTTP

Reading: Ch 2.2-2.2.3 (HTTP)
  2.7-2.7.1 (socket programming with TCP)

Homework 1 is due Monday Aug 31 at 2 pm
Getting to ERF 2054
socket() - create a new socket
connect() - connect a socket to some end point address+port
recv() - receive a packet (part of a message)
send() - send a packet
shutdown() - close connection
recvfrom/sendto - UDP related packet handling
bind() - specify address and port of a server socket
listen() - wait for a connection attempt
accept() - gets a socket to remote client
select() - listen for events on multiple sockets at once
gethostbyname() - resolves host name (www.google.com) into an IP address (128.93.83.2)

http://www.theplace.com/thedirectory/thefile.html
layered protocol model / protocol stack

http, smtp, imap, pop, skype
firefox

TCP - byte-oriented transport, reliable, in-order
UDP - datagram oriented, unreliable, not in order
end-to-end communication / app-to-app
provides host-to-host communication
no reliability
routing - figuring out how to get there
one-hop communication