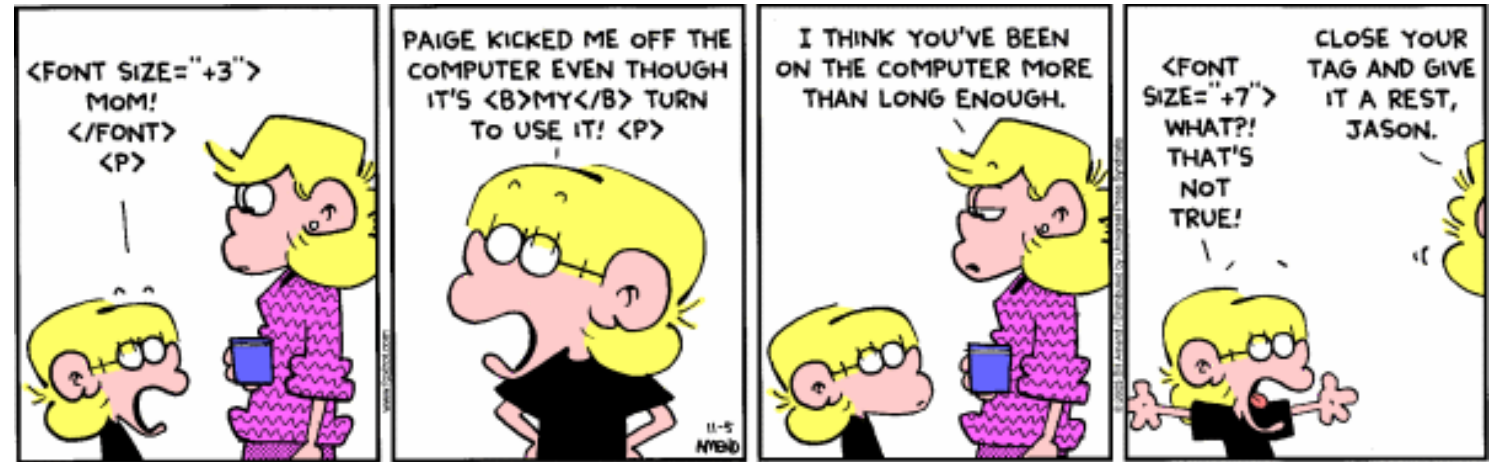


CSE 154



LECTURE 1: BASIC HTML AND CSS

The Internet



- Wikipedia: <http://en.wikipedia.org/wiki/Internet>
- a connection of computer networks using the Internet Protocol (IP)
- layers of communication protocols: IP → TCP/UDP → HTTP/FTP/POP/SMTP/SSH...

Web servers and browsers

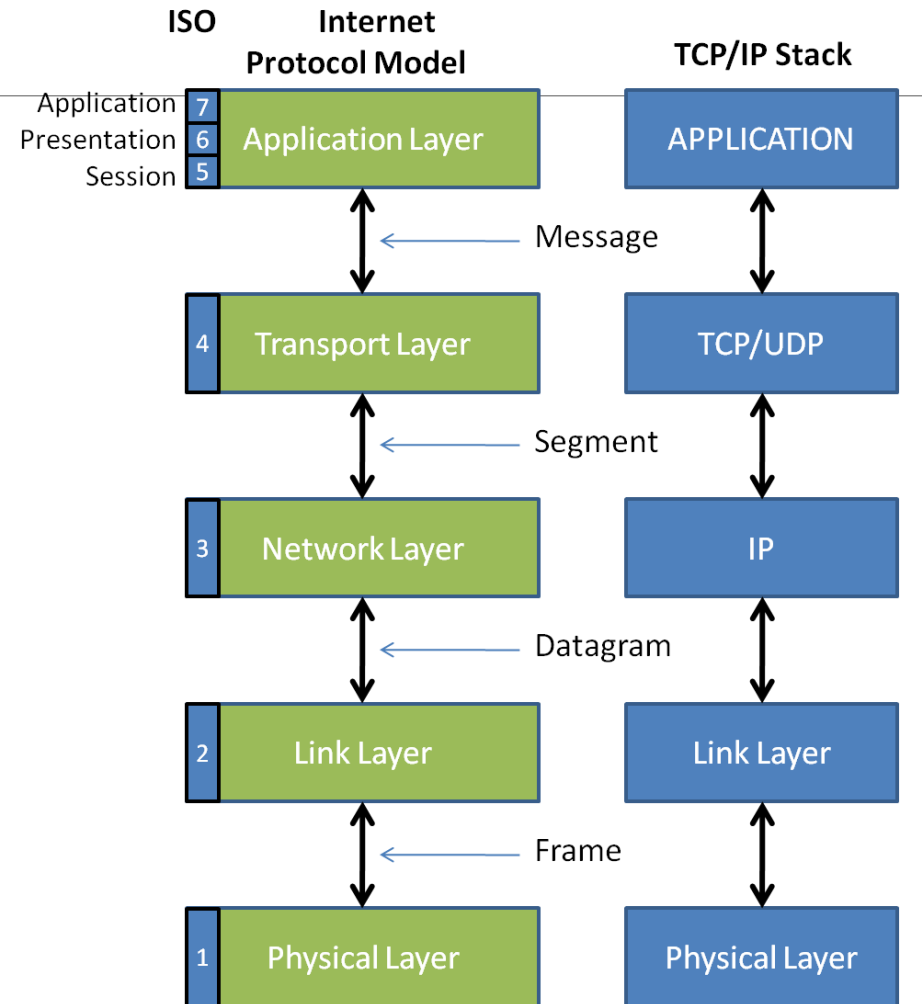
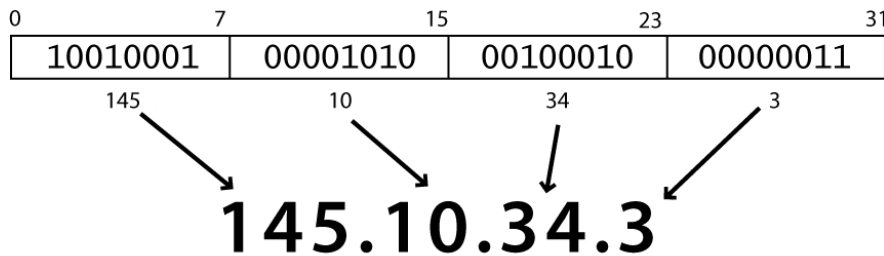
- **web server:** software that listens for web page requests
 - [Apache](#)
 - Microsoft Internet Information Server (IIS) ([part of Windows](#))
- **web browser:** fetches/displays documents from web servers
 - [Mozilla Firefox](#)
 - Microsoft [Internet Explorer](#) (IE)
 - Apple [Safari](#)
 - [Google Chrome](#)
 - [Opera](#)



Layers of protocol

Protocol:
a set of rules governing the format of data sent

IP address:



How do web addresses work?

DNS:

- a set of servers that map written names to IP addresses
 - Example: `www.cs.washington.edu` → `128.208.3.88`
- many systems maintain a local cache called a hosts file

URL:

- a basic URL: `http://www.aw-bc.com/info/regesstepp/index.html`
~~~~ ~~~~~~ ~~~~~~  
protocol host path

# Who "runs" the internet?

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- Internet Engineering Task Force ([IETF](#)): internet protocol standards
- Internet Corporation for Assigned Names and Numbers ([ICANN](#)):  
decides top-level [domain names](#)
- World Wide Web Consortium ([W3C](#)): web standards



# Brief History

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- began as a US Department of Defense network called [ARPANET](#) (1960s-70s)
- initial services: electronic mail, file transfer
- opened to commercial interests in late 80s
- WWW created in 1989-91 by [Tim Berners-Lee](#)
- popular web browsers released: Netscape 1994, IE 1995
- Amazon.com opens in 1995; Google January 1996
- [Hamster Dance](#) web page created in 1999



# Web languages / technologies

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- Hypertext Markup Language ([HTML](#)): used for writing web pages
- Cascading Style Sheets ([CSS](#)): stylistic info for web pages
- PHP Hypertext Processor ([PHP](#)): dynamically create pages on a web server
- [JavaScript](#): interactive and programmable web pages
- Asynchronous JavaScript and XML ([Ajax](#)): accessing data for web applications
- eXtensible Markup Language ([XML](#)): metalanguage for organizing data
- Structured Query Language ([SQL](#)): interaction with databases



# Structure of an HTML page

---

```
<!DOCTYPE html>
<html>
  <head>
    information about the page
  </head>
  <body>
    page contents
  </body>
</html>
```

# Page title: <title>

---

*describes the title of the web page*

<title>Chapter 2: HTML Basics</title>

- placed within the head of the page
- displayed in the web browser's title bar and when bookmarking the page

# Paragraph: `<p>`

---

*paragraphs of text (block)*

```
<p>You're not your job.  
You're not how much money you have in the bank.  
You're not the car you drive.    You're not the contents  
of your wallet. You're not your          khakis.  You're  
the all-singing, all-dancing crap of the world.</p>
```

You're not your job. You're not how much money you have in the bank. You're not the car you drive. You're not the contents of your wallet. You're not your khakis. You're the all-singing, all-dancing crap of the world.

- placed within the body of the page
- [more paragraph examples](#)

# Headings: `<h1>`, `<h2>`, ..., `<h6>`

---

*headings to separate major areas of the page (block)*

```
<h1>University of Whoville</h1>
```

```
<h2>Department of Computer Science</h2>
```

```
<h3>Sponsored by Micro$oft</h3>
```

University of Whoville

Department of Computer Science

Sponsored by Micro\$oft

- [More heading examples](#)