

Announcements

- CMSC 198N – Introduction to Computer Programming via the Web
- Web site:
<http://www.cs.umd.edu/class/spring2007/cmssc198N/>
- Announcements section in web site

Fundamentals: Web Server

- Web Server –
 - computer program that delivers (serves up) web pages.
- Popular Web Server Programs
 - Apache - <http://www.apache.org/>
 - IIS – Internet Information Services
 - Sun Java System Web Server
- Web server statistics
 - <http://survey.netcraft.com/Reports/0612/>
- Some web server statistics (by domain)
 - <http://survey.netcraft.com/Reports/0612/bydomain/com/>
 - <http://survey.netcraft.com/Reports/0612/bydomain/mil/>

Fundamentals: DNS

- DNS – Domain Name Systems
- Protocol for translating domain names to IP addresses
 - Example: cs.umd.edu → 128.8.128.44
- Multiple DNS servers on internet
- DNS server may need to query other DNS servers
 - edu DNS server queries umd.edu server to find cs.umd.edu

Fundamentals: Port Number

- What is a port number?
 - A number representing an application (program) running in a machine
 - Assuming the IP Address is a phone number, the port represents a phone number extension.
 - A server machine could have several applications (programs) “listening” to different ports
- Web servers default port number is 80
- ssh
 - Application to connect to a remote computer
 - port number is 22
- Complete list at: <http://www.iana.org/assignments/port-numbers>

Fundamentals: URLs

- URL – Uniform Resource Locators
- Represent web resources
 - Arbitrary files
 - Web pages
- Examples
 - `http://www.cs.umd.edu/index.html`
 - `ftp://www.cs.umd.edu/pub/doc/policies.pdf`
 - `https://login.yahoo.com/`
 - `file://dir/my.txt`

Fundamentals: URL Structure

- URL consists of
 - Protocol
 - http
 - ftp
 - https (secure http)
 - file
 - ...
 - IP address (or domain name)
 - Port (optional most of the time)
 - `http://www.cs.umd.edu:80/`
 - path

Fundamentals: Web Server

- Web Server – Let's access a web server again but using an URL with all the information (no default values)
- Notice that www is not part of the name of the web server domain name. It is convention to use www as part of the name but you can name it anything you want.
- Could there be other servers running in a machine?

Fundamentals: Web Hosting

- Web hosting- Service that stores the files representing your web page on a server so users on the internet can access them
- As students of the university you have a place where you can put the files representing your web page.

Firefox

- Browser we will use
- Extensions we would like to have
 - Error Console
 - Live HTTP Headers
 - ShowIP

Technology Minute

- Generating your own pdf files