



Computer Science S-75

Building Dynamic Websites

Harvard Summer School
<https://www.cs75.net/>

Lecture 0: HTTP

David J. Malan
malan@harvard.edu
<http://cs.harvard.edu/malan>

DNS



DNS

- A
- CNAME
- MX
- NS
- ...

Prerequisites

- Multiple years of programming experience in any language; comfort with HTML and CSS



Expectations

- Attend all lectures
- Implement three projects

Lectures

- Lecture 0: HTTP
- Lecture 1: PHP
- Lecture 2: PHP, Continued
- Lecture 3: XML
- Lecture 4: SQL
- Lecture 5: SQL, Continued
- Lecture 6: JavaScript
- Lecture 7: Ajax
- Lecture 8: Security
- Lecture 9: Scalability



Sections, Office Hours

- Mondays, after lecture
- Wednesdays, after lecture



Projects

- Project 0
- Project 1
- Project 2

Grades

- Scope
- Correctness
- Design
- Style

$\text{scope} \times (3 \times \text{correctness} + 2 \times \text{design} + 1 \times \text{style})$

www.cs75.net

The screenshot shows a web browser window displaying the website for Computer Science S-75. The browser's address bar shows the URL <https://www.cs75.net/>. The page features a navigation menu on the left with links for Main Page, FAQs, Lectures, Projects, Resources, Sections, Software, Staff, and Syllabus. The main content area includes a search bar, a "Main Page" heading, and a section for "Computer Science S-75 Building Dynamic Websites" by David J. Malan. Below this is an "Announcements" section with a single item about Lecture 0's video, and a "Schedule" section with a calendar view for Monday, June 25, Wednesday, June 27, Monday, July 2, and Monday, July 9. A "Google Calendar" button is visible at the bottom right of the schedule section.

Computer Science S-75

Press **tab** to search Computer Science S-75 (en)

staff only

Page Read [View source](#)

Main Page

Computer Science S-75 Building Dynamic Websites

[David J. Malan](#)
malan@harvard.edu

Websites are increasingly dynamic. No longer static HTML files, pages are instead generated by scripts and database calls. User interfaces are more seamless, with technologies like Ajax replacing traditional page reloads. This course teaches students how to build dynamic websites with Ajax and with Linux, Apache, MySQL, and PHP (LAMP), one of today's most popular frameworks. Students learn how to set up domain names with DNS, how to structure pages with XHTML and CSS, how to program in JavaScript and PHP, how to configure Apache and MySQL, how to design and query databases with SQL, how to use Ajax with both XML and JSON, and how to build mashups. The course discusses issues of security, scalability, and cross-browser support and also discusses enterprise-level deployments of websites, including third-party hosting, virtualization, colocation in data centers, firewalling, and load-balancing.

Announcements

- Lecture 0's video will be posted by Tue 6/26 evening.

Schedule

Today **Monday, June 25** ▾

Monday, June 25
15:15 Lecture
Wednesday, June 27
15:15 Lecture
18:30 Section
Monday, July 2
15:15 Lecture
18:30 Section
Monday, July 9

Events shown in time zone: Eastern Time

CS50 Discuss

This is CS50 Discuss.

Hi, Tommy!

New Post

Search Posts

Search

Watched

Open

Unread

All

Week 1

Week 2

Week 3

Week 4

Give your post a title.

What does your post relate to?



Bold

Italic

Underline

Insert Code

LaTeX

Elaborate here...

Keep me anonymous to classmates

Keep this post private to staff

Attach File

Post

Web Hosts

Features Satisfaction Guaranteed Account Control Panel One-Click Installer E-Commerce

Shared – All this for just \$8.95 per month!

Core Resources

Disk Storage	<u>Unlimited TB + 50GB Backups</u>
Monthly Bandwidth	Unlimited TB
Domains Hosted	Unlimited
Full Shell / SSH / FTP / SFTP Users	Unlimited
E-Mail Accounts (POP/IMAP/Webmail)	Unlimited
MySQL 5 Databases	Unlimited
Operating System	Debian Linux







Show More

Virtual Private Servers

Plans and Availability

[View larger plans »](#)


No set up fees, pay month-to-month, 7 day money back guarantee

	Linode 512	Linode 768	Linode 1024	Linode 1536	Linode 2048	Linode 4096
						
RAM	512MB	768MB	1024MB	1536MB	2048MB	4096MB
Storage	20GB	30GB	40GB	60GB	80GB	160GB
Transfer	200GB	300GB	400GB	600GB	800GB	1600GB
Price	\$19.95	\$29.95	\$39.95	\$59.95	\$79.95	\$159.95
	1923 Available	774 Available	520 Available	525 Available	394 Available	20 Available
	Sign Up Now!	Sign Up Now!	Sign Up Now!	Sign Up Now!	Sign Up Now!	Sign Up Now!

CS50 Appliance



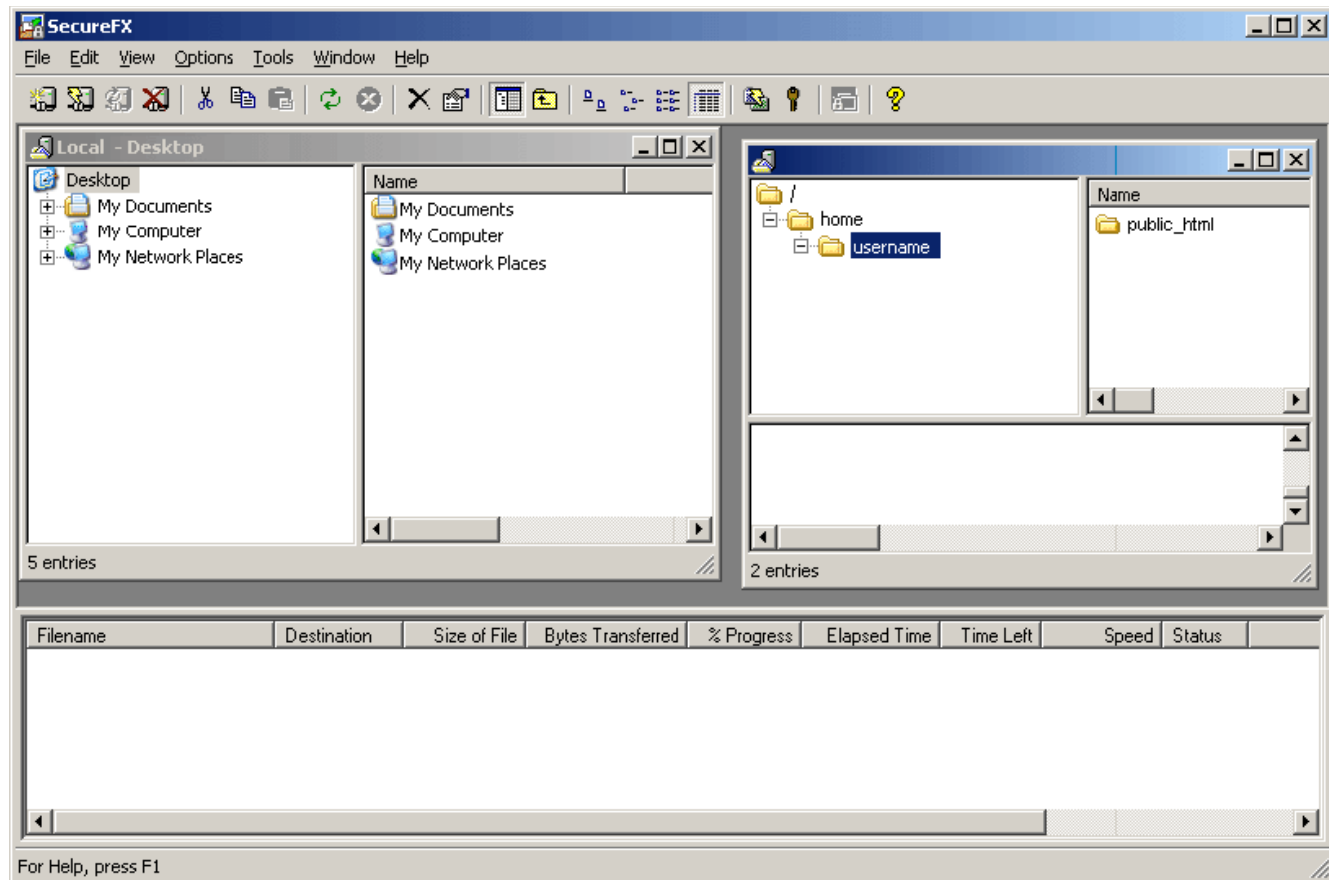
SSH



```
Terminal — tcsh — 80x24
Welcome to Darwin!
[mac:~] username% █
```

A screenshot of a terminal window titled "Terminal — tcsh — 80x24". The window contains the text "Welcome to Darwin!" followed by a prompt "[mac:~] username%" and a cursor. The terminal window has a standard macOS-style title bar with three colored buttons (red, yellow, green) on the left.

SFTP



Forms

- Text Fields
`<input name="email" type="text" />`
- Password Fields
`<input name="password" type="password" />`
- Hidden Fields
`<input name="id" value="123" />`
- Checkboxes
`<input checked="checked" name="remember" type="checkbox" />`
- Radio Buttons
`<input name="gender" type="radio" value="F" />`
`<input name="gender" type="radio" value="M" />`
- Drop-Down Menus
`<select name="state">`
 `<option value=""></option>`
 `<option value="MA"></option>`
 `<option value="NY"></option>`
`</select>`



Computer Science S-75

Building Dynamic Websites

Harvard Summer School
<https://www.cs75.net/>

Lecture 0: HTTP

David J. Malan
malan@harvard.edu
<http://cs.harvard.edu/malan>