

Course Recap

CS518

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Administrative

- Last lecture
- Next week: Milestone 4 & Midway Reports
No accompanying lecture
- Finals week: Milestone 4 due
Grad student projects due

Course Objectives

- LAMP development
- Web programming practice
- Web architecture
 - And what it means for web development
- Web standards
- “Live with your crappy code”

LAMP

- Linux Apache MySQL PHP
- Linux: Open Source Operating System
- Apache: OS Web Server
- MySQL: Free Database
- PHP: Server-side development

- Equipping a server with a database, programming language, and serving web content

Web Architecture

- POST vs GET vs DELETE vs ...
- HTTP
- Role of clients vs servers
- Resources vs representations vs URIs

Other Programming Things

- HTML: Web markup
- CSS: formatting
- JavaScript: client-side programming
- LAMP (Server) + HTML/CSS/JS (Client)
 - Development in the context of web architecture
 - Why do we develop this way and how is it different from other development paradigms

Docker

- How it works
- How we used it
- How do use it on your own
- When to use it

Web Programming Best Practices

- User input
- Sessions/Cookie/Environment variables
- Proper formatting
- REST vs SOAP
- Password handling
- Favicon

- GitHub

APIs

- Design
- Implementation
- Use/Adoption
- Gravatar, Google Maps, CAPTCHA, ...

Impact

- Web development jobs
- Extend to other stacks
 - MEAN
 - Node.js
- Research practice and examples

Intangibles

- Technical writing
- Presenting research to peers
- Explaining design decisions
- Preparing for changes to requirements
- Understanding the impact of design choices