CS631 - Midterm Review & Final Discussion

TA: Patrick Murray

2016-10-17

Agenda

Midterm Review

Final Project

In-Class Exercise

Midterm Review

Demo

- Any volunteers?

Midterm Review

Demo

- Any volunteers?

Testing & Debugging

Final Project

Assignment

/~jschauma/631/f16-final-project.html

Manual

/~jschauma/631/sws.1.pdf

Final Project

Objective

- Implement a simple web server that speaks a limited dialect of the HTTP/1.0 protocol.
- Understand the process of reading RFCs and technical specifications.
- Accept concurrent connections from both IPv4 and IPv6 clients.
- Allow dynamic content through the use of CGI files.
- Log HTTP requests in a formatted output file.

Final Project

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RFC - Requests For Comments

- RFC1945 : Hypertext Transfer Protocol – HTTP/1.0
- RFC3875 : The Common Gateway Interface (CGI) Version 1.1
- RFC3986 : Uniform Resource Identifier (URI): Generic Syntax

Final Project

HTTP Methods

- GET
- HEAD

HTTP Headers

- Date
- Server
- Last-Modified
- Content-Type
- Content-Length

Final Project

System Portability

- Linux Lab [Ubuntu]

  linux-lab.cs.stevens.edu

- AWS Instance [NetBSD]

  cs631apue.netmeister.org

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Version Control

- Groups are required to use Git to track progress on the assignment.

  /~jschauma/631/git.html

Final Project

Groups

1. group1

   Runxi Ding (rding6), Sean Kung (skung1)

2. group2

   Jason Sarwar (jsarwar), Marlon Seaton (mseaton)

3. group3

   Bradford Smith (bsmith8), Kyle Thompson (kthompso)

4. group4

   Conghao Xu(cxu4), Bo Zhang (bzhang41)

In-Class Exercise

Reference: /~jschauma/631/git.html

SSH Key Authentication

- Using the SSH key provided to Professor Schaumann before class, connect to the NetBSD machine provided.

```
$ ssh USERNAME@cs631apue.netmeister.org
Enter passphrase for key '~/.ssh/id_rsa':
```

Questions?