CS:APP Proxy Lab

Directions to Instructors

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1. Overview

In this lab, students build a simple concurrent caching Web proxy that

accepts HTTP 1.0 requests from clients, forwards them to end servers, and then sends the replies back to the clients. The proxy caches objects returned by the end servers, and attempts to satisfy requests from clients from the cache before forwarding the requests to the end servers.

2. Files

Makefile Builds the entire lab

README This file

proxylab-handout/ Handout directory that goes to the students.

Regenerated from src/

src/ Source code for the solution and the driver

writeup/ Latex lab writeup

grade/ Grading directory where instructors/TAs run the

autograder

3. Building the Lab

Step 1: Modify the Latex writeup in writeup to reflect the handout and

handin instructions for your site.

Step 2: Type "make clean; make" to format the writeup in writeup/proxylab.pdf and to build the proxylab-handout.tar file.

Step 3: Distribute proxylab.pdf and proxylab-handout.tar to the students.

4. Grading the Lab

Autograding scripts are available in the grade/ directory. See grade/README for details.

When we offer this lab at CMU, we do some additional manual grading: - Manually test on four real sites (see writeup/proxylab.tex for details)

- Manually grade for Style
- Manually check for errors that the autograder doesn't check for, such as race conditions on shared data structures.

5. Solutions

The reference solution is in ./src/proxy. [ch] and ./src/cache. [ch]