CS 118 - Project 1

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1 Design

From a top-level perspective, we implemented four different classes, utilizing object-oriented abstractions, to create the web client and web server. These include the following classes: `HttpRequest`, `HttpResponse`, `Client`, and `Server`. In the following sections we will describe our high-level design decisions in implementing each of these classes.

1.1 HTTP Request and Response

1.2 Web Client

1.3 Web Server

2 Problems and Solutions

2.1 Client File Reception

Problem: How does the client know the entire file has been transmitted

Solution: use content length

2.2 Client Multiple URL Handling

Problem: When parsing multiple URLs with muliple host, port, file combinations, how do we structure our data.

Solution: Use a map from host-port pairs to file path vectors

3 Build Instructions

4 Test Cases

5 Contributions

5.1 Alex Crosthwaite

- Server (50%)

5.2 Jacob Nisnevich

- Client (50%)
- HTTP Request and Response Classes

5.3 Jason Yang

- Server (50%)
- Client (50%)