FDR Design Plan

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Overview

Create A server that accepts HTTP requests and servers content from the servers directories.

Architecture

Significant functions

bool validate_root_dir(const char *directory);

This function accepts a string and validates that the directory exists and that it has a www and a cgi-bin folder inside.

char *extract_filename(const char *request);

This function takes a GET/HEAD request header and takes out the filename, calling validate_request_method in the process, which ensures it is, in fact, a GET/HEAD request.

static bool validate_request_legality(const char *root, const char *target);

This function ensures that a requested file on the server both a. exists and b. is allowed to be reached (inside of www or cgi-bin).

static bool validate_request_method(const char *request);

Features

-Write a man(1) page to document the program
-Write the writeup, test plan, and design plan using TeX or LaTeX.

-Support Content-type: text, jpeg, png, or gif.
-Support 405 responses for requests with unimplemented request
 methods
-Support 403 responses for files lacking read permissions (in www) or
 read/execute permissions.

Tasks

Viner

-parse HTTP request
-validate file path and file integrity
-error pages

Lefler

-Design Plan
-Test Plan
-Multiplex server