

**ASHTI**  
**Project Design Plan**

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## **1. Design Plan**

### **1.1 Requirements**

Requirements for this project was to create a HTTP server that will take a folder on the command line and serve web pages from the passed folders sub directories. The sub directories required were “www” and “cgi-bin”. “www” would contain regular files and “cgi-bin” would contain scripts that would dynamically generate pages.

### **1.2 Design Plan**

Initial plans were to utilize my thread pool library worked on earlier in the week and have the threads pull in jobs from a linked list and process them as needed. I wanted to have a server library as well, but that didn't come to fruition during this project. My main thread was intended to loop forever and accept incoming connections and hand off the file descriptor to the sleeping threads and the thread would parse the request, respond and subsequently close the file descriptor.

### **1.3 Additional Thoughts**

I intentionally didn't do any checking on the folder passed in because that's only used to find file paths later. I didn't feel the need to throw errors if the user sends me an invalid folder, that's their fault when they get 404 errors.

### **1.3 Setup**

Supported targets: make, make debug, make profile, make clean

Running: ./bin/ashti [folder]

-Will bind to port specified by UID if possible, if under 1024 will default to 9001