Web Server Core Extensions
Cpt S 422 Homework Assignment
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Assignment Instructions:

Read all instructions *carefully* before you write any code.

In this assignment you will extend your web server to have proper timeouts and request limits for security and reliability purposes.

Part 1: Timeouts

Implement the 2 read-oriented timeouts discussed in class in your server core code. The first is a timeout for an individual read on the network stream. Set this to some value between 1 and 2 seconds. The second is a timeout for the request to send up to the double line break, which is the start of the body and therefore the point at which the server finds a handler for the request. If the double break has not been received after 10 seconds total, then terminate the request by closing the socket connection.

Part 2: Request Size Limits

In your server core, implement 2 size thresholds as you are reading the request. The first is a threshold just to reach the first line break. If you have read 2048 or more bytes from the socket and not received the first CRLF line break, then terminate the request. The second threshold is for the content up to the body. If you have read (100 * 1024) bytes or more and have not received the double line break, then terminate the request. Put both of these thresholds in const member variables in the class so that they could be easily changed to new values in a future version.

Submit all code needed to build and run your server. You are expected to build automated tests, but do NOT include that code in the zip file. Include the demo service created in a prior assignment as well.