Homework 2

Hello World Server

Develop a web server that can parse requests and send responses following the HTTP protocol.

As explained on the course website, no HTTP libraries/frameworks are allowed. You must manually parse and write HTTP requests and responses.

Objective 1: TCP Socket Server

Write a TCP socket server in your chosen language. This TCP socket server must accept valid TCP client connections and receive messages sent by the client. Your server does not have to have any meaningful functionality for this objective. Printing the received messages will suffice.

Testing Note: Any web browser is a TCP client. With your server running you can enter "localhost:<port_number_of_your_server>" and it will connect to your server and send a message.

As explained on the course website, you can use libraries to setup the TCP socket server as long as their use is a standard practice for your language of choice.

Objective 2: Hello World

Implement an HTTP server that will respond with a welcome message using your TCP socket server. Choose a path and a message to serve such that server will respond to a GET request for that path you server will respond with your chosen text in an HTTP response. The message type can be plain text (eg. content type "text/plain").

Example: GET /hello returns "Hello World!"

Testing Note: Navigating your browser to "localhost:<port_number_of_your_server>/<path>" will display your message.

Objective 3: 301

Choose a second path which will redirect your users to the path you chose in objective 2.

Objective 4: 404

If a request is received for any path other than the two used in objectives 2 and 3, return a 404 response with a message saying that the content was not found. This can be a plain text message.

Submission

To earn credit for this homework you must complete all 3 submissions.

1. Submit all the files of your site to AutoLab in a **zip** file
2. Submit your report to AutoLab as a **txt** file
3. Fill out the [homework self-grading form](#)