

In MP7 I had the task of implementing an effective web proxy server. To do this I had to take advantage of many operating system devices such as threads and sockets. Using these elements together proved to be less than trivial, however, with logical planning, the task was made significantly simpler.

In order to determine whether I had to read the HTTP response or not, I checked the first line of my request against my cache. If there had existed a value for the appropriate key, I simply returned the value stored and never forwarded the request to the web server. Furthermore, to support persistent connection with my proxy, I could keep the client connection open and continuously send data.

Finally, one of the most difficult tasks was ensuring fast response of large files. In order to do this, I was required to send data to the client as soon as I received it from the web server and then store it in the buffer for later (i.e. if I need to cache the response). Therefore, sending data to the client immediately after it is received from the web server ensured fast delivery.