This project was created for a networking class. I built a web client, server, and load balancer. I was not allowed to use any Python functions to execute other applications, and I was not allowed to use any libraries that handled HTTP requests.

Instructions:

Step 1) Open as many servers (server.py) as you wish.

Step 2) In the run configurations – parameters of balancer.py add the address of the servers (every server you open will state the port it is on as shown below. Format of server in configurations – localhost:port



Configurations – parameters for balancer with the two servers above:

Graphical user interface, text, application

Description automatically generated

The balancer now will of connected to the servers, while doing this the balancer would will of tested the speed of each server and ranked them.

Step 3) Requesting a file from the server from a web client. In the client.py configuration – paramters enter the address of the balancer and the file you want from the servers of format – localhost:port/file

The balancer will show you the port to connect to like this:



Example of downloading the file test.png from the servers.

Graphical user interface, application

Description automatically generated