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Writeup asgn3

Testing

- Created multiple servers for my loadbalancer to prioritize between with close total requests
- Did not send any curl requests to see if healthcheck happens in background on its own every 5 seconds
- Sent many curl requests, to see if the correct server was handling it until another healthcheck happened
- Sent individual put,get, head requests to see if correct server was getting the request

Drawbacks

- Can send multiple requests and get the correct outputs on my end but sometimes it can get caught in a loop for put requests
- My thinking is that I am reconnecting to the server file descriptor in the middle of sending data to it or something
- Because i set the file descriptor everytime i connect after a checkhealth
- The health check might be changing the fd while i'm still writing to the original server fd
- Did not have enough time to figure out how to multithread the client requests
- My asgn2 multithreading worked for the most part so I don't know how it didn't switch over easily to this assignment.
- Only multithreading is for health checks while i'm still handling client requests linearly

Questions

1. Implementing health checks with performance attributes would be incredibly more complex as there would be many more categories to compare between servers. It would also be difficult to implement in the server itself to measure its own performance.
2. If we were to slightly process the client requests we could be able to immediately check if the request is in the correct format before even sending it to the server. That would save time for the server to not even have to parse, but we would have to to be able to send 400 errors. The cost for this would not be too much as most client requests before data are not very long. If we were receiving the data from the client as well though that would take much longer to parse through and would be very taxing on the loadbalancer since it is the bottleneck for all client connections to go through.
3. Yes since my implementation is linear in how it sends requests to servers it makes a big difference. Not having an extra server slows it down because I am not able to prioritize another server with a big file so the servers that I have already sent the requests to I have to send again with another big file so it takes longer. If I had an extra server then I would be able to balance the load better.