Performance

Results from Lighthouse give us a 70-80/100 on performance on the different home tabs, with the issue being long JavaScript execution times. On the main workout runner app (/workout), we receive a 57/100 on performance.

Most modern web apps have performances of 60-70/100 on Lighthouse on their different pages, so that is the amount we were aiming for, along with the goal of avoiding any overtly long loading times. Though the actual workout app falls a little short, it is difficult to notice any performance issues visually, and so we're satisfied with our performance metrics.

See performance reports on Performance_home.pdf and Performance_app.pdf.

Security

Users are authenticated by checking their usernames and hashed passwords stored in the database.Upon authentication, users get a JSON Web Token for general authorization. The JWT is valid for one hour and is being checked on every page route by a middleware to ensure proper authorization. Users with an expired JWT are routed back to the login page, with their expired JWT destroyed.

Scalability

We have yet to deploy the application, so it is difficult to estimate how our systems handle large user loads. However, the different systems of our app are segmented into their own containers, allowing for easy horizontal scalability in case user loads start becoming larger.