Backend Developer Trial Task A

NodeJS

Brief

Implement URL shortener web application API, using databases and frameworks of your choice. The index page should display a form offering the user to shorten a URL. After the form was submitted, a short URL should be displayed to the user.

Short URLs should redirect to original URLs.

Your implementation should be able to sustain 100 URL submissions and 1,000 short URL accesses per minute.

You may assume that there will be approximately 1,000,000 unique URLs and all further submissions will be duplicates of URLs submitted previously.

Scale

Assuming we want to scale it up to 10,000 URL submissions and 10,000,000 short URL accesses per second with up to 10,000,000,000 unique URLs.

Please add a note (as a separate document) summarizing what changes need to be done in your code to support such scale and how to set up such a system.

Extras (optional)

Include a docker file in your solution. You can help us to better understand how you approach complex tasks by sending us a git repository containing all intermediate commits you made while working on this task.