

For questions please email krishnan@nimble.ai

Nimble Fullstack Challenge

Software Engineer Cloud Services Requirements

Overview:

You will need to make a simple chat room application.

1. Frontend: Any frontend framework (preferably **React Typescript**).
2. Backend: Any backend languages/framework (preferably **Go**).
3. Protocol: Choice of **RESTful API, GraphQL or Websockets**
4. Database: Choice of **PostgreSQL, MSSQL, MongoDB (self-deployed version)**
5. Infrastructure: Please use **Minikube** (local kubernetes)

For Frontend:

1. It should be able to sign up a new account with a username and a password.
2. It should be able to login in with an existing username and password.
3. After login successfully, the user should be able to send messages and see history messages from other users.
4. Users should be able to send messages.
5. Users should be able to upvote or downvote each message
6. User interface & user experience should be polished and professional.

For Backend:

1. It should be able to accept sign up requests, and store them in the database.
2. It should be able to accept login requests.
3. It should be able to reject login requests if username and password are not correct.
4. Whenever it receives a message from a user, it should store them in the database.
5. Should handle race conditions for a horizontally scalable upvote and downvote functionality.
6. Basic password authentication (do not use external services for handling authentication)

Anything else not specified in the requirements are open to your choices and could be potential bonus points.

In your submission:

1. Include all source files and deployment files for backend + frontend.
2. Include a detailed README/instructions on how to deploy the backend, the db and the frontend together.
3. Include a video showing a working local deployment