

Project Proposal

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(should be 3 team members unless agreed upon earlier with instructors)

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Project Title: Public Blog Platform

Summary and Description

- Describe the problem that your project will address.

In this project we propose to build a platform for users to share their ideas by blogs. It will accept plenty of words as their content. We will send the content to AWS and store it in MongoDB. Users can login with valid username and matched password and see their personal posts and public posts, which are all sorted by post time. The profile page will show personal information blogs of a specific user while the public page shows current user's information and all the public content from all the users. Meanwhile, each blog also shows the address and user local time based on where it is posted.

1 Proposed Architecture

Our project will consist of a front-end web-application, a backend web server, and a Mongo database to store users' information. We will create the backend server in Node.js and use GraphQL for the API. Users will interact with the API through a front-end client (web-page). We expect the app to include at least the following web pages. We will generate these pages as a combination of static assets and dynamic content using Angular.

Home Welcome page, with static content where user could choose either Login or Sign up to access the app.

Login Login to the app given username and password.

Sign-up Create an account as a user. Gather basic info such as username, password, nickname and bio.

Public Display all of the blogs posted by all of users in the order of time. Users could check the profiles of other users and post a blog.

Profile Display personal information and blogs posted by a specific user. Users could edit their own profile and delete their own post. Also, users could set their own blogs as public or private.

2 Datasources and Additional APIs

Users will provide their own words content. Our system will ensure their content is less than 200 characters.

- ip address: https://ipinfo.io/?token=YOUR_TOKEN_ID
- physical address: https://ipinfo.io/?token=YOUR_TOKEN_ID
- local time: [http://worldtimeapi.org/api/\[ip_address\]](http://worldtimeapi.org/api/[ip_address])

Likely Outcome and Expected Results

The outcome we expected is that we could get the complete functions that we provide in the first section which is we can achieve user login, sign up, and users can post and delete their post, set private or public, and see the public post. The most likely reasons for project failure is that we haven't used AWS before, we don't know whether the deployment would succeed and we haven't built the whole project using both frontend and backend technology so we don't know what will happen when combining them. Moreover, we haven't used the additional api before, so we are not sure whether something happens when using them. We may build a home page, login and sign up

first and then finish the post, delete functions and test them. Finally add the additional api and optimize the interface.

3 References, Tutorials, Codebases, Documentation, and Libraries

- IP API tutorials: <https://ipinfo.io/developers>
- GraphQL.js tutorials: <https://graphql.org/graphql-js/>
- Angular tutorials: <https://angular.io/tutorial>
- Worldtime API <http://worldtimeapi.org/api/>
- HTML/CSS tutorials: <https://www.w3schools.com>

4 Estimated Compute Needs

We will create a new private VPC in the AWS cloud. We anticipate a single t2.small server will suffice. We do not anticipate any unusual hardware or computing need.

5 Team Roles

The following is the rough breakdown of roles and responsibilities we plan for our team:

- Yuqi: Primary: HTML page design and overall "look and feel". Secondary: coordinate the API integration between Jian and Bei.
- Jian: Backend server design and API. Primary: Personal post and Public Post GraphQL resolvers and database access. Secondary: coordinate the API integration between Yuqi and Bei.

- Bei: Backend server design and API. Primary: home, login, sign in resolvers and database access. Secondary: coordinate the API integration between Jian and Yuqi.

All team members will work on the final presentation, slides, and report.