Development
Winter Assignment

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Contents

Information Management Group

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Age of Ultron

LAST DATE OF SUBMISSION: **Mar 12, 2023**

Overview

Nick Fury has asked for your help to develop a solution for the Avengers' communication issue with Hulk. Hulk's unique speech of grunts, growls, and body language has caused coordination issues during battles. Introducing 'Avengers Language Quest,' a new and innovative language learning app. This app is specifically designed to help Hulk learn a new language with the help of his friends.

The web app should consist of exercises, designed to help Hulk improve his English in an interactive and entertaining manner. Tony Stark, who is busy fixing Jarvis after Ultron attacked him, suggests taking inspiration from the Duolingo app.

Objectives

Don't feel overwhelmed; we have simplified the problem statement for you in order to avoid any confusion.

So, take a deep breath, and dive in!

Essential Features - Your web application MUST contain these features:

1. **Authentication**

   Sign-up or log in with a unique username and password is possible for users. When signing up, they have the option to either upload a profile picture or choose a default one.

2. **Dashboard**

   After logging in, the user lands on a dashboard to see an overview of their learning and the coins earned.
   The dashboard would specifically show the user:
   a. A card displaying the languages that the user has chosen to learn, along with their current proficiency level for each language
   b. The coins earned by the user should also be displayed in this tab.
   c. A menu containing tabs for Friends and Profile Page.

3. **Profile**

   a. The user should be able to see their personal information, like name, and profile photo, along with an option to edit the information.
   b. The user's follower and following count should be displayed here, and clicking on either will bring up a list of the respective followers or those being followed.
   c. The user's high scores in various activities must also be displayed.

4. **Chat Box**

   a. Users should be able to engage in one-to-one chat with their friends within the web application, allowing them to discuss their mistakes and collaborate on learning.

   Hint: Make it real-time using web sockets, or you can just refresh the chat box after every 5 seconds. (Tony would prefer the former one)

5. **Question Answer**

   a. Use your creativity to present questions and answers in an interactive way to help Hulk comprehend better.
   b. Coins will be awarded for each question. The user will receive coins if they respond correctly.
   c. When designing a language learning program, ensure to include multiple levels with a progressive increase in difficulty.

Brownie Points

Your application may or may not contain these features, but implementing them will help your project stand out!

1. Authentication - Instead of using plain vanilla username and password, you can implement the authentication in these alternative ways:
   a. Channeli OAuth.
   b. Email/phone-number and password authentication, where email/phone is verified through OTP.
   c. Google OAuth
2. Deploy the application on a server to enable public access through a URL.
3. Implement the chat feature with end-to-end encryption.
4. Add a group chat feature.
5. Implement the "Streak" feature to track the user's consistency.
6. Display a leaderboard for ranking the users based on the coins earned or streaks.

Frequently Asked Questions

1. **Is this an individual or group project?**
   This is an individual project, and submission is limited to one per person :)
2. **Is hosting necessary?**
   Brownie points for hosting, but be sure to include your app setup instructions in the README file of your GitHub repository!
3. **What tech stack can I use?**
   You are free to use anything and everything to build your web application!
4. **Can I follow online tutorials?**
   Yes, of course! However, we do not encourage direct copies. We expect you to understand and take inspiration from tutorials, but the core effort should be your own.

Still, have a Question? Ask Us!

We at IMG are here to help throughout your development from a learner to a web developer. Just ping us at any point if you are stuck; we surely like to stick to the motto, "Help will always be provided to those who ask for it."

Remark: Please post your queries on the discord server. We would be delighted to see your progress. Even if you don't reach the end, what's most important is that you learned something new. That's all that matters to us. We're always looking for talented developers and designers who have a constant desire to learn and grow. So, please submit your code to us via a GitHub link for a public repository. If your hard work is reflected in your code, you may even get a chance to directly appear for recruitment interviews.

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All the best!

Stay tuned, as we will soon release the submission form on our recruitment site and social media pages. Keep following us for updates.

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