Team 8: Team Weekly Activity Submission: Propose a New APP or Website

Team Introductions

Since this is your first assignment as a team, spend some time getting to know each other

1. Introduce yourselves: name, major and concentration, any particular career interests/goals, something on your mind, or anything else you want your team to know about you.
    - **Chang Liu**:
    - **Tao Yuan**:
    - **Venkata Sai Advaith Kandiraju**: MS Robotics student at Boston campus
    - **Yueyang Xu**: 2nd year student in CS Align Program (Seattle campus), background in biochemistry
2. Figure out how your team would like to communicate outside the class: Slack channel? Discord? Email? Text message? WhatsApp? A combination of multiple channels of communication?
    - Microsoft Teams for the majority of communication and file transfer
    - Email as a backup method
3. Set expectations for communication: How quickly do you expect responses from others, and how quickly do you expect to be able to respond at various points during the week? **Remember, you should treat each week as two weeks this semester.**
    - Weekly meeting for progress update
    - For general communication via Teams or email, response within the same day is preferred. If there are days when you would not be available, communicate with the team beforehand.
4. Are there any other technologies you want to use or try to facilitate teamwork?
    - Google Drive and Github for code sharing
5. Compare schedules: Are there times when most of you are free other than class? Are there times any of you are completely unavailable?
    - We plan to have a weekly team meeting on Thursdays at 11:00 am EST
6. Set up a place for you to keep your shared files: One Drive/Google Drive is recommended
    - We created a folder in Google Drive to facilitate file sharing: [cs5340 group8 - Google Drive]

Websites/APPs from which We Took Inspiration

1. Myfitnesspal: it is a comprehensive fitness app that provides a variety of diet and exercise related features. We took inspiration from its Nutrition functionality, where the user can search for food items by raw ingredients, brand, or dish name, and log their daily intake.

2. Keep: it is a fitness app specializing in offering body assessments and personalizing training plans in the form of pre-recorded lessons. We took inspiration from its physical assessment quiz where the user can provide their height, weight, and other optional physical measurements. Then the user can enter a goal, areas of focus, along with a weekly schedule. With this information, the app will propose a schedule of classes, which the user can further modify to fit their schedule.

Project Idea

We aim to design a fitness app that simplifies and personalizes the process of workout planning and fitness tracking. The core mechanic of our app is an AI-powered virtual fitness coach that interacts with users to create and manage their fitness routines. This coach will function similarly to virtual assistants like Siri or Alexa, providing workout recommendations and nutritional advice. Users can interact with the coach by asking questions such as "What is the best workout for fat loss?", “What are some arm workout routines with no equipment?”, or general dietary and nutritional tips. Users can also participate in a short quiz about their current fitness level, goals, workout preferences, and equipment availability. Upon participation, the coach will use this information to draft a workout and diet plan, and continuously modify it based on user feedback.

The virtual fitness coach will use a variety of data sources for access to accurate information and construction of effective plans. Many web APIs, such as Chomp and Nutritionix, are available to provide nutritional information on branded food and raw ingredients, or estimate calorie consumption for any given exercise. In addition, there are many existing exercise-related APIs that can generate workout routines based on targeted muscle groups, available equipment, and a variety of other requirements. The coach will be trained with these existing data sources, along with user input throughout the interactive process.