Course Professor: Dr. Johnson

Team Members: Bree Betts, Maya Dahlke, Adriana Donkers, Henno Kublin, Lexi Weingardt

CMSI 401

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Coco 2.0 Project Proposal

Description

Coco Nutrition is a diet tracking application that implements Natural Language Processing (NLP) to track a user's meals. This application was developed by Dr. Korpusik alongside her research team at MIT. Coco 2.0 aims to improve upon the existing application. It will be an IOS application with a backend Python Flask server. Currently, the Coco application is using an AWS database and AWS storage, but we plan to migrate the entire backend application to AWS. Additionally, we will work to improve the application's Chatbot to behave more similarly to a nutritionist. We will also create an algorithm to match users to food recipes using the Spoonacular API. Our final objective is to provide users with more actionable insights into their diets by keeping track of their specific data and providing users with trends we uncover. The end-user for this application is a person who is conscious of their diet, but may not have the resources to meet with a nutritionist or the time to manually log the food they eat. The primary stakeholders for this project are the members of Dr. Korpusik's MIT research team and members of the associated company, MealMate Inc.

Justification

Each team member has different skills and interests that all mesh together to enable us to work on various aspects of the project individually. This summer, Adriana worked on an intern project that helped with integrating a chatbot. Her intern experience and her interest in the backend will be transferable for working on the chatbot. Henno is Solution Architect Associate certified and he plans to take a full-time offer with AWS after college, so working to migrate to AWS would definitely be his best fit. Lexi has had prior experience with IOS development from Interaction Design. As it's one of her interests, she will contribute a great portion of her skills to IOS

development. Bree's experience taking Dr. Forney's Artificial Intelligence courses and interest in backend development make her a great fit to work on the data analytics portion of the project. Maya's prior experience working on APIs from classes and side projects makes her a great team member to work on the recipe recommendations. With all our skills put together, we can delegate tasks and keep our final projects individualized, while still working together towards the common goal of building a more robust version of Coco. We would be taking skills we've learned from all of our classes, especially courses like Interaction Design for iOS development or Intro to Databases for the back end. We've also left the project description to be highly scalable in case we finish early (for example we can make the backend serverless if time allows).