Project Proposal: Mixology
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Project Description: I have decided to build a mobile app where users can use AI to generate new mixed drink ideas based on ingredients that they have around the house. They can then share/name these drinks, post them, find new drinks and save them to their wishlist on their profile for the future. Moreover, I want each user to have a profile where they can input their favorite flavor profiles and have drink recommendations based off of those. The end user of this app would be anybody over the age of 21, and I would account for this by having each user input their date of birth before they create an account on the app. Currently, there are webapps and mobile applications that generate mixed drink and cocktail ideas, such as Mixel and Cocktail Flow; however, I want to make my app unique through building community and utilizing social media to find new recipes along with AI. I also want to accommodate for users who do not drink alcohol and create a mocktail option when inputting ingredients. To accomplish this, I will utilize Swift for the frontend, the openAI API (possibly), Firebase/Firestore, and Python for the backend.

Justification: I think that this project will be a good test of my knowledge learned through my previous courses, as well as an extension beyond my project from Senior Project I. I am familiar with Swift, but have not used it for a project of this caliber, and am excited to tackle this challenge. Furthermore, I want to incorporate a more fleshed out back-end for this project. If I have time, I would like to create AI/ML-powered features for drink recommendations using Python libraries, like Pandas or PyTorch. However, if I don't have time, I will use the openAI API to handle the generation of the drinks. This project is also very interesting to me as I am passionate about making drinks and I think it is relevant to me as a college student who wants to save money by using ingredients/mixers that they already own.