Project Proposal: Globetrotter
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Project Description: I have decided to build a mobile app where users can use AI to generate new trip itineraries based on specific user input. These itineraries will suggest certain travel times, activities and accommodations at each destination. Users can sort the results/itineraries by budget, see each trip on a map with pins at each destination, save each trip to their user profile, and create a wishlist of their desired destinations. Some of the constraints I want to add would be trip length, number of destinations, number of travelers, domestic/international, temperature preference, environment (beach, city, mountains, cruise), vacation style, etc. The end user of this app would be anybody who is looking to plan a trip. Currently, there are webapps and mobile applications that generate trip itineraries through AI; however, a lot of these softwares have users communicate with chatbots. I am more interested in users filling out forms with dropdown menus for each constraint. Furthermore, I want each user to have a profile where they can save the itineraries that they are interested in. To accomplish this project, I will utilize Swift for the frontend, the openAI API (possibly), the Google Maps API, 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 trip 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 itineraries. This project is also very interesting to me as I am passionate about traveling, and want to discover new places to travel to.