Project Name **Restaurant Recommendation System**

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Project Description: The Restaurant Recommendation System project is a mobile application that allows for groups of people to have an easier time deciding where to get dinner together. The core idea that motivates the project is decision paralysis, which is where an individual or group of people ends up over-analyzing the list of choices for a decision and ultimately ends up spending an unnecessary amount of time just to reach a decision that is unsatisfactory or perhaps no decision at all. The project hones in on the scope of specifically deciding where to eat as a group, and will offer recommendations to groups based on each individual's preferences with the goal of achieving the highest possible level of satisfaction across the group.

Features: The app will primarily revolve around groups of users interacting together in a group message. Within the group message, users can initiate a survey process, where the app queries individuals on whether or not they would like to eat at certain restaurants in the nearby area. It then takes the results and determines which location(s) would be the most agreed-upon across the board. Naturally, there are some scenarios where unanimous agreement is impossible, but the app still makes an attempt to deliver a recommendation regardless. On top of this core functionality, the app serves as a general-purpose messaging system where users can communicate with each other within groups as well as in 1-on-1 messaging. It will also have a friend system for ease of group creation.

Evaluation: The primary metric for evaluating performance of the project is through user feedback. Essentially, by seeing how often users approve of and/or agree with the recommendations produced by the app, the overall performance and effectiveness of our choice of recommendation algorithm can be evaluated.

Challenges & Future Work: Many of the challenges with the app lie in upscaling it for a wider audience. Currently, it is designed to operate on a hard-coded database of restaurants local to Florida Tech, while the ideal version would be capable of pulling restaurant data from services like Google Maps to allow for more widespread use. Additionally, the performance of the recommendation algorithm would likely benefit from the introduction of artificial intelligence/machine learning aspects, but acquiring enough data to properly train such an algorithm is beyond the time scope of this project. However, both of these changes would make the app significantly more useful.