Title: Table for Two

Project Summary:

Table for Two is a web application that pairs people up to explore local restaurants together based on their unique preferences. The purpose of this project is to encourage people to go out of their comfort zone and try new cuisines while also fostering meaningful connections over lunch or dinner! Our application currently is tailored for people living in New York City and provides restaurant recommendations in the area

When a user creates a profile, they have the option of adding what kinds of restaurants and meals they want to try. After they are matched with another user, they have the option of reserving a table for two at a restaurant that reflects their preferences. The dataset we use for this project contains information about numerous restaurants in New York City, and we plan on collecting user preference information to pair people together.

Description:

When moving to a new destination, people often need to become more familiar with their environment. Especially in a large city like New York City, there are so many places to explore, including food spots, and it can be overwhelming to some. In addition, those who are moving alone may want to meet new people and make friends. To resolve these problems, the Table for Two application allows users to input their preferences into the site and matches them with restaurant options and people to enjoy their meals with.

Specifically, given basic information such as availability, cuisine preference, budget, dietary needs, and more, we encourage users to explore the city, step out of their comfort zone, and find new favorite restaurants, all with a buddy! Our app is intended for both newcomers to New York City who are looking for delicious cuisine and friends, as well as lifelong New Yorkers who are looking to try local restaurants and experiment with their tastes.

Creative Component:

Our creative component is a matching feature that would allow different users of the site to connect with each other. Rather than simply providing restaurant recommendations based on their preferences, we also want users to have the ability to socialize with other users. This will involve a more complex user database on the backend to store different user preferences, and we would need to find similarities between various users' preferences. This feature would make the application more interactive and unique compared to other restaurant finders on the market (Yelp, Google Maps, etc). To further encourage interaction, we also plan on expanding this feature to include a chat functionality that would allow users to facilitate their conversations after they are paired up. The chats would use a database for the backend as well.

Usefulness:

Table for Two is a useful application because it exposes users to new restaurants to expand their taste and introduces them to other people in the city with common interests. When users arrive on the website, they will be prompted to make a profile. The profile will hold information about the user's name, availability, cuisine preference, etc. to match them with restaurants and people. The app's simple features are the matchmaking system, the profile creation process, and the restaurant recommendation system since it uses information directly from the users' profiles. Some of the more complex features include a map that displays where the restaurant is in proximity to the user, a feedback system where users can rate their experience, and a chat box for users to communicate with each other.

Our application is similar to a mobile app that was launched in 2021 called Munch. Munch is similar to Tinder, the dating app that matches pairs, however, in Munch, users swipe through restaurants. What makes Table for Two different from Munch is that our application makes users create profiles and input preferences in order to make recommendations and form matches, rather than having the user swipe through options immediately. Additionally, Munch only gave the option of swiping through restaurants with friends that you create groups with. Our application will give suggestions for both the restaurants and friends to dine with. Table for Two is also similar to Yelp, but we emphasize the opportunity for users to step out of their comfort zone and enjoy their experience looking for new dining options.

Data Sources:

We will use the NYC Restaurant Food Order & Delivery Dataset on Kaggle. Data collected by the online food order and delivery company FoodHub on real orders from restaurants in New York City, this dataset contains information about the restaurant name, cuisine type, the cost of the order, the day of the week (weekend/weekday), rating (out of five stars), the average food preparation time, and the average delivery time. The data also has a unique order ID for each order and a customer ID, which will track multiple orders from the same customer. Stored as a CSV, there are 1898 entries, with each entry containing the 9 pieces of information specified above.

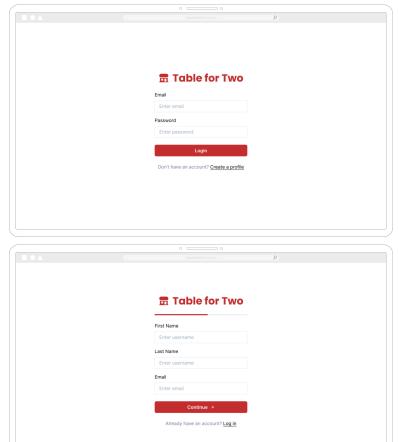
The second database will be an AI-generated database to represent user information. This database will store the User ID, First Name, Last Name, Cuisine Preference, Maximum Budget, Average Accepted Wait Time, Gender Preference, Allergens, Time Availability, and Day of the Week. We estimate that there will be about 500 users in the database, stored as a CSV.

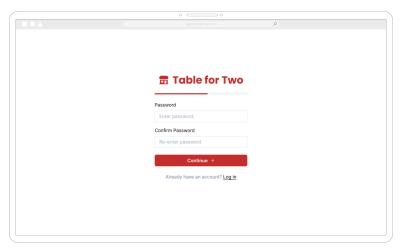
A third database will store user login information: user id, username, and password. The password may be hashed for security.

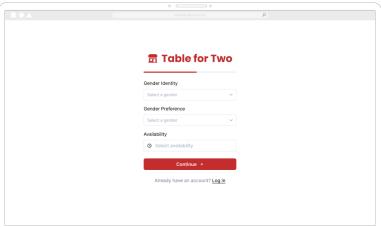
Functionality:

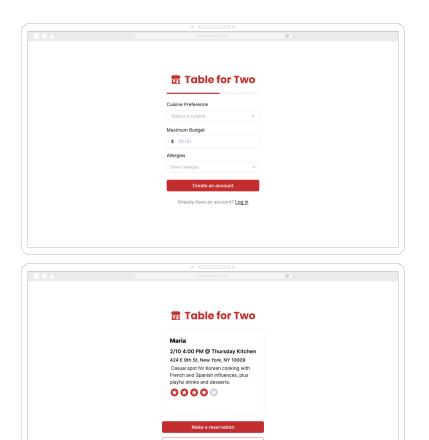
Upon landing on the site, users have the option to sign into their account or to create a new profile. During this process, they will be asked for preferences in cuisine, maximum budget, availability, allergens, and other factors that will help them be matched to another user. From there, they will be able to view a potential match. The match will display information about the other user and suggested NYC restaurant information from our first database. This includes the restaurant name, cuisine type, cost of an order, rating, and other information. A user can also choose to refresh the match and receive a new one.

UI Mockup:









Project Work Distribution:

The project can be separated into several main categories that represent specific user interactions, general UI, algorithms, and interfacing with databases. These categories, and the assignee for each one is listed below:

Frontend:

Login page UI: Rahul Account sign-in: Emily Main dashboard UI: Emily User preference selection: Dan Match selection interface: Meghana

Backend:

Account information database: Meghana Potential match algorithm: Emily and Dan

Interfacing with the user information database and the NYC Restaurant database: Rahul