**Front End**

The front end of MealMe was created using React which is a component based javascript library for building user interfaces. The website is a single page application that is navigated through using buttons on the screen.

**Home Page**

There is a button that prompts the user “Get Started”. This button uses the useRef function to track sections of our website and scroll the page to the next accordingly based on the sections created.

**Price and Location Page**

The next page of our website has 4 buttons to decide which pricepoint you desire to choose from and an input for an address you want to search in. Then there is a button that says “Match Me” that assigns the price and address to a global variable in the App.js file to be accessed by the back end. This button also uses the useRef to then scroll to the next reference section which displays the restaurant cards.

**Restaurant Card**

The user is shown a picture of a restaurant, the distance away from their chosen location, and a brief description of the type of food the restaurant serves. Under this information there are three buttons, one to like, dislike, or superlike the restaurant. Once the user makes their choice they are shown another restaurant close to their chosen location and in their selected price range. This process is repeated until the user wants to find their match by pressing the watermelon button. This then leads them to the match page.

**Match Page**

The process of matching an individual is chosen based on an algorithm. The algorithm is stored in a function which takes three arrays as a parameter. The arrays contain which restaurants were, liked, disliked, and superlike. The arrays are indexed through and information based on the restaurant's cuisine type is extracted. A count is kept for each cuisine count which is adjusted based on whether the user liked, disliked, or super liked it. At the end it finds the largest count and returns the string equivalent to that cuisine type. This string is then used to call the API one last time to produce a match based on all the parameters including, price, location, and the algorithm chosen cuisine type.

**Back End**

Using React's state hook library, the state of which button is pressed allows for variables to be updated on the event of a click. These variables are then stored to be used later in a function that calls the yelp API to display restaurants based on the user's specifications.

**API**

Initially the plan was to integrate multiple APIs, at least bearing: the GeoLocation API to locate the user by allowing location access, SerpAPI for transposing google images, and most importantly, the Yelp Fusion API to collect data from restaurants and dining locations. Being the most integral part of the project, the Yelp Fusion API takes in a variety of query parameters (19 of them) and returns a JSON script of a business’s information. A user would input their location and price preference, while the radius of how far away the business could be, if it’s open in 30 minutes, and sorting by distance would be kept at a constant. The initial conversion of reading the JSON details was quite difficult, as the JSON’s format could not be held into an array. Requiring a lot of research, troubleshooting/debugging, and a sht ton of mentorship help, we eventually found out that the JSON’s information could only be stored via usage of the useState() JavaScript function. The API function call still spits out the image url, the distance from the inputted location, type of food, and the name. We then use this information to populate the Meal-Me card. Because of how long it took to implement the main API, the other two uses of the API functionality got scrapped.