

Project Proposal

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1. Present your basic project idea and motivation. Why should your consumers care? Cite relevant sources for similar projects if in existence, and how your project improves over those ideas. [~2 pages excluding figures, 1 point]

The main aim of our app is to solve the common problem of indecisiveness when it comes to choosing a restaurant. This can be particularly challenging when dining with a group of people who have varying preferences or simply cannot decide where to eat. Our app provides a solution to this problem with its restaurant randomizer feature.

Using this feature, users can input their location and filter by cuisine type, price range, and other factors. The app will then generate a random restaurant suggestion that matches their criteria, ensuring that everyone has a fair chance to have their input, and the final decision is made through an unbiased process. To make it more fun, the app offers a "spin the wheel" or "choose for me" option for a surprise selection.

The app also provides restaurant details such as the menu, reviews, and location to help users make informed decisions. Additionally, users can make reservations, view current wait times, and earn rewards for frequent dining. The social features allow users to share their dining experiences with friends and family, and discover new restaurants based on their connections' recommendations.

Consumers would find our app useful for several reasons. Firstly, the restaurant randomizer feature provides a simple and easy solution to the problem of indecisiveness when it comes to choosing a place to eat. This saves time, reduces stress, and eliminates disagreements among group members.

Secondly, the app helps users break out of their usual dining routines and try new things by discovering new restaurants based on their preferences and filters. The personalized recommendations feature and ability to save favorite restaurants further enhance the experience.

Thirdly, the app's social features create a sense of community, fostering a culture of sharing and exploration. Finally, the additional features such as the ability to make reservations, view wait times and earn rewards incentivize users to continue using the app and exploring new restaurants.

Our restaurant-picking app not only benefits users, but also aims to establish partnerships with restaurants in order to offer exclusive deals and promotions to users. By partnering with restaurants, we hope to help them attract more customers and provide a better dining experience to users who use our app to find and visit their restaurants.

Through the app, users can redeem exclusive deals and promotions at participating restaurants, such as discounts on meals or free drinks. These deals and promotions can be tailored to each user's preferences, based on their dining history and feedback. For example, a user who

frequently dines at Italian restaurants might receive a deal for a discounted pizza at a nearby Italian restaurant.

In addition to offering deals and promotions, our app will also collect data on user preferences and feedback, which can be used to help restaurants improve their offerings and tailor their menus to better meet customer preferences. By analyzing user data, restaurants can identify popular dishes, adjust portion sizes, modify ingredients, or add new items to their menus, ultimately enhancing the overall dining experience.

Overall, our app's partnerships with restaurants are designed to benefit both users and restaurants, by providing users with exclusive deals and promotions and helping restaurants improve their offerings to better meet customer preferences.

There are a lot of restaurant roulette apps out there, so our app will need to offer something unique and valuable to users. Here are a few ways we plan to improve on the existing restaurant roulette concept:

Personalization: Unlike some other restaurant roulette apps that simply choose a restaurant at random, our app will take into account each user's preferences, such as cuisine type, price range, and atmosphere, to provide personalized recommendations. Users will also be able to provide feedback on their dining experiences, which will help our app learn and refine its recommendations over time.

Partnered deals: As mentioned earlier, our app plans to partner with restaurants to offer exclusive deals and promotions to users. This will not only help users save money, but also encourage them to try new restaurants that they might not have considered otherwise.

Social features: Our app will include social features that allow users to connect with friends, family, and other users to share restaurant recommendations and dining experiences. This will make the app more engaging and encourage users to keep coming back.

User-generated content: In addition to restaurant recommendations, our app will also allow users to create and share their own content, such as reviews, photos, and ratings. This will create a community-driven platform where users can discover new restaurants and connect with other foodies.

In summary, our goal is to create an all-in-one dining app that makes choosing a restaurant and dining out a stress-free and enjoyable experience. With its unique features and focus on enhancing the dining experience, our app aims to become the go-to solution for restaurant indecisiveness.



Our App Icon

2. From a platform strategy lens, where does your project fit? How would you generate network effects? What is the estimated TAM? Provide market research including data (consider designing and if possible running a survey to check for the feasibility of the idea and market interest). What is your app diffusion strategy? [~2 pages excluding figures, 1.5 point]

From a platform strategy lens, our app would fit under the category of a "matching platform." A matching platform is a type of platform that connects two or more parties with complementary needs. In our case, our app would match consumers who are indecisive about where to eat with restaurants that fit their preferences. More specifically, the app would fall under the subcategory of a "two-sided matching platform," which involves connecting two distinct groups of users who need each other to create value. The two groups of users are the consumers who are indecisive about where to eat and the restaurants that are available to them. As a two-sided matching platform, our app would need to focus on building a strong network effect, which means that the value of the platform increases as more users join. This is because as more consumers use the app to find restaurants, more restaurants would be incentivized to join the platform to reach those consumers. And as more restaurants join, more consumers would be incentivized to use the app to find more options for where to eat.

To ensure a good user experience, we are planning to implement a rating and review system that will help users make more informed decisions. This will help users choose a restaurant that best suits their needs and preferences. Additionally, we plan to create a user-friendly interface that is easy to navigate and understand. In order to incentivize more restaurants to join the platform, we are thinking about offering special deals or promotions for restaurants that sign up early. This will help to create a strong supply-side network effect and increase the number of options available to users. To build a strong network effect, we would need to prioritize both acquiring new users and ensuring that they have a good experience with the app. This could involve building features that encourage users to invite their friends, implementing a rating and review system to help users make more informed decisions, and leveraging social media to increase the app's visibility and reach.

A platform that creates network effects is one that provides value to its users by connecting them to other users or businesses in a mutually beneficial way. The more users or businesses on the platform, the more value the platform provides, which in turn attracts even more users and businesses, creating a virtuous cycle of growth. There are several strategies that can be employed.

First, we would focus on user acquisition. By building a large user base, we can create demand for the services or products being offered by the app such as restaurants and food delivery. This can be accomplished through marketing efforts, incentivizing referrals or sign-ups, or creating partnerships with other companies or organizations. By attracting more users, the platform becomes more valuable to all users and businesses, creating a network effect that drives growth. Secondly, optimizing the user experience is key to creating network effects. A seamless and enjoyable user experience keeps users engaged and coming back to the platform. This involves optimizing the platform's design and functionality, reducing friction in the user flow, and implementing features that make it easy for users to find and connect with others on the platform. This could be through a favorites tab, a filtration system, and a positive customer service system. By creating a positive user experience, users are more likely to refer others to our app and to continue using the app over time. Thirdly, data can be a powerful tool to generate network effects. By collecting and analyzing data on user behavior and preferences,

we can improve the platform's matching algorithms and create more value for users. Analyzing usage patterns, feedback, and user-generated content such as reviews and ratings can help us identify areas for improvement and make data-driven decisions to improve the platform.

Encouraging feedback and user-generated content is another strategy for generating network effects. By creating a culture of feedback and user-generated content, platform creators can create a sense of community around the platform and encourage users to engage with each other. This involves soliciting feedback through surveys or forums, incentivizing users to create content such as reviews or posts, and creating social features that encourage users to interact with each other. By building a community around the platform, users are more likely to refer others to the platform and to continue using the platform over time. Lastly, creating incentives for participation is key to generating network effects. By offering incentives for the customer base as well as the restaurants, a virtuous cycle of growth can be created. For example, offering discounts or other perks to users who participate in the platform, or offering incentives to businesses that sign up early can encourage participation and growth.

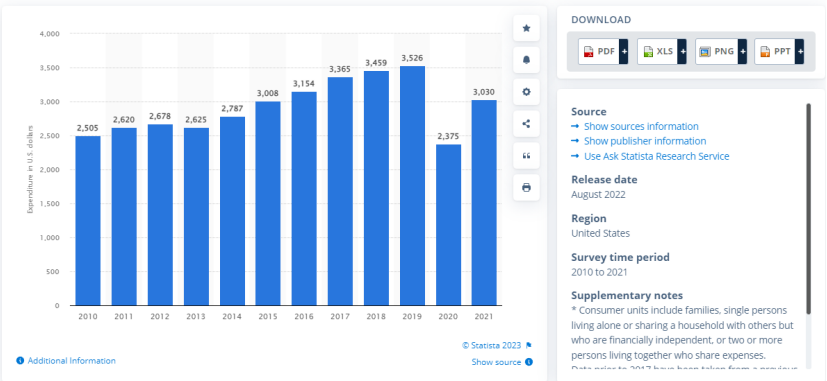
For our TAM, we first found out how large the market base is for people who eat out at restaurants or use food delivery apps and then found out the percentage of people who had trouble picking foods. These are the consumers that we are targeting when we release our app because we want to see out of all the people who like eating out, what percentage of them struggle with selecting where they want to eat. According to a 2021 survey conducted by the National Restaurant Association, 61% of adults in the United States report that they eat at a restaurant at least once a week. The survey also found that 33% of adults eat at a restaurant 1-2 times per week, 17% eat out 3-4 times per week, and 11% eat out 5 or more times per week. Another survey conducted by Zagat in 2020 found that the average American eats out 4.5 times per week, which includes both fast food and sit-down restaurants. Additionally, we looked at statistics of the most common food delivery services to see how large the customer base is for people who like to look through restaurants and choose where to eat. In 2022, Uber eats has a customer base of 85 million, DoorDash has 32 million, and Postmates has 9 million. Based on these numbers alone, the market for this app is very large. Additionally, there are similar apps available online that have a large customer base for this kind of service. After, taking the average amount of consumers for this market, which is about 170 million customers, I multiplied this value by 30% because this is the average amount people that would benefit from using this kind of service/application. This means that our TAM is about 51 million for this kind of application.

We believe that for our application we would develop a strong value proposition, use app store optimization, referral programs, and post on social media for our diffusion strategy. A good app diffusion strategy is critical to the success of any app. Even the best app in the world won't get adopted if people don't know about it.

First, it's important to develop a strong value proposition for your app. Our app offers a unique value proposition that sets it apart from other apps in the market. For example, because we are creating a restaurant decision-making app, we offer a unique algorithm that helps users find the perfect restaurant based on their preferences and location. Additionally, we would provide better customer service as well as a more personalized search engine. After we develop a strong value proposition, we need to make sure that our app is getting recognized in the app store search results. This is where app store optimization (ASO) comes in. ASO is the process of optimizing your app's metadata, including the title, description, keywords, and images, to improve its awareness in the app store search results. As such, we would use ASO to help our app get more organic downloads and increase its visibility in the app store. After our app gets some traction, we would market it and spread the word out through various social media

platforms. Platforms such as Facebook, Twitter, and Instagram can be used to create targeted ad campaigns, share content, and engage with our audience. In addition to social media, we would also offer incentives for referrals and reviews. This would encourage our users to refer their friends to the app and leave positive reviews by offering incentives such as discounts or exclusive features. This can help us build a strong and loyal user base and increase.

Average annual food away from home expenditures of United States households from 2010 to 2021 (in U.S. dollars)*



As for other age groups:

- 18-24 year olds spent \$53 per week on average
- 35-44 year olds spent \$75 per week on average
- 45-54 year olds spent \$48 per week on average
- Those aged 55 and over spent \$42 per week on average

Ratings and Reviews

4.5 out of 5

1.2K Ratings



★★★★★

Scattered home office mom, 04/05/2022

Mostly great!
I like this app, and find it helpful when we can't decide where to go to eat. I have a "Master List" which has everything from high end to burgers. Another called "The 10 p [more](#)

★★★★★

Superjac, 04/28/2021

Many things to love
I was searching for something like this an [more](#)

Developer Response,
Hi Superjac, [more](#)

★★★★★

JoeAppStoreNickname, 11/15/2019

Better than flipping a coin
Awesome app! I LOVE the "Add My Own [more](#)

Developer Response,
Thanks for your review! We really apprec [more](#)

Postmates annual users 2016 to 2021 (mm)

| Year | Users (mm) |
|------|------------|
| 2016 | 2.5 |
| 2017 | 4 |
| 2018 | 5.5 |
| 2019 | 6 |
| 2020 | 8.8 |
| 2021 | 9.3 |

Uber Eats annual users 2016 to 2021 (mm)

| Year | Users (mm) |
|------|------------|
| 2016 | 5 |
| 2017 | 9 |
| 2018 | 15 |
| 2019 | 21 |
| 2020 | 66 |
| 2021 | 81 |
| 2022 | 85 |

DoorDash annual users 2018 to 2022 (mm)

| Year | Users (mm) |
|------|------------|
| 2018 | 4 |
| 2019 | 10 |
| 2020 | 20 |
| 2021 | 25 |
| 2022 | 32 |

3. Discuss the architecture of your project. For e.g., databases (such as JSON structure), screens (mockups/wireframes) and user experience/journey from one screen to another, structures and classes you intend to use. Support your answers with illustrations. [~3 pages excluding figures, 5 points]

The overall architecture of Restaurant Roulette enables the app to provide personalized, random restaurant recommendations to users based on their preferences.

Overview of UX Journey and Screens:

The user interface of Restaurant Roulette is designed to be simple and intuitive. It allows users to enter their location, cuisine preferences, and other filters. The overall journey provides the user with the ability to input their preferences, receive recommendations, confirm their selection, and navigate to the selected restaurant, all within the app. Once the user inputs their preferences, the app generates a random restaurant suggestion. The user can then choose to accept the suggestion or request another random suggestion. The UI's functionalities are visually appealing, easy to navigate, and responsive to user input. It also provides feedback to the user, such as loading indicators and progress bars, to keep the user informed of the app's progress. Using Figma to wireframe, we created three main screens within Restaurant Roulette: a main landing page, a near me module, and a favorites module. All three of the main screens within Restaurant Roulette consist of components that allow the user to input their preferences and interact with the app.

The initial landing page of Restaurant Roulette will be the first screen that users see when they open the Restaurant Roulette app. It serves as an introduction to the app and provides a brief overview of its features. The landing page features a bold welcome message that greets users and introduces the app. The landing page prominently displays the app's logo and name. This helps users to quickly identify the app and distinguish it from other apps. The logo includes a unique graphic/ icon that represents the app's purpose. This page also includes icons such as a plate, fork, and heart. The app name is displayed in a bold and readable font, making it easy to read and remember. The landing page provides an overview of the app's main features, such as restaurant recommendations near the user, a Call-to-Action button, and a favorites module. This provides users with a clear idea of what the app can do and how it can help them. The app logo and name are prominently displayed at the top of the landing page to help users easily identify the app. Also, there is a hamburger button included to easily help the user navigate to the settings menu of the app. Next to the hamburger button is a profile icon. When the user interacts with the profile icon, this is where they can manage their cuisine preferences, location, price ranges, dietary restrictions, payment information, etc. The app logo, name, hamburger button, and profile icon are all displayed at the top of the landing page from left to right. Therefore, the user will intuitively know what the app is, its purpose, and how to interact with it.

The landing page showcases the app's design and branding to create a consistent and visually appealing user experience. This includes the app's color scheme, typography, and imagery. The color scheme reflects the app's purpose, such as warm colors that evoke a sense of comfort and satisfaction, intertwined with a casino-color scheme to drive the theme of the app. The typography is easy to read and consistent throughout the app. Within the app's functionalities, the imagery includes photos of food, restaurants, or people enjoying meals, further reinforcing the app's purpose.

The Call-to-Action button within Restaurant Roulette is the most critical function of the app. The app's main purpose for the user is embedded in this button. The call-to-action button, located in the center of the screen, will encourage users to actually start using the app. The button design is a casino-style roulette table, signifying the application's main theme. Within the button the bolded word "Spin. " The button is prominently displayed and easily tappable, making it easy for users to take the next step and start using the app. This prominent Call-to-action button is accompanied by a roulette-spinning graphic once the user taps the button. The visually appealing graphic for the Call-to-Action button is needed for the user to actually see the app is working.

The "Near Me" screen in the Restaurant Roulette app displays a list of restaurants that are located near the user's current location. When the user opens the app and selects the "Near Me" page, the app uses the device's GPS to determine the user's location and then displays a list of nearby restaurants. The list may include restaurants that are within a certain distance from the user, such as 1 mile or 5 miles. The app uses location-based services provided by the device's operating system to access the GPS data. This data includes latitude and longitude coordinates that are used to pinpoint the user's location on a map. Once the app has the user's location, it uses an algorithm to search for nearby restaurants within a specified radius, such as a few miles or kilometers. The algorithm calculates the distance between the user's location and each restaurant using the latitude and longitude coordinates of both locations. The restaurants that are within the specified radius are then displayed in a list on the "Near Me" page. The app may also use additional criteria to filter and sort the restaurants that are displayed. For example, the app may prioritize restaurants with higher ratings or those that match the user's preferred cuisine. When the user selects a specific restaurant from the list, the app may use APIs (Application Programming Interfaces) to retrieve additional information about the restaurant, such as its menu, hours of operation, and reviews. These APIs allow the app to access data from third-party sources, such as review websites like Yelp and online menus, and display it within the app's interface. Overall, the "Near Me" page in the Restaurant Roulette app relies on a combination of location-based services, algorithms, and APIs to provide users with a list of nearby restaurants that match their preferences.

The "Favorites" screen provides a convenient and personalized way for users to keep track of their favorite restaurants within the Restaurant Roulette app. With features such as search and filter options, edit and delete options, and navigation options, the favorites screen helps users easily manage their restaurant recommendations and preferences. The header of the Favorites Screen will include navigation icons to return the user to the previous screen. The header will also include the screen title "Favorites" along with relevant icons or graphics. The main content of the Favorites Screen is a list of the user's favorite restaurants. Each restaurant listing typically will include the restaurant's name, location, and other relevant details such as cuisine type, distance price range, and ratings. The favorites screen will include a button that allows the user to search and filter options to help users quickly find specific restaurants within their favorites list. Search options will include a search bar that allows users to type in keywords, such as restaurant name or location. Filter options may include dropdown menus or icons that allow users to filter their favorites list by meal type, price range, location, or other relevant factors. The Favorites Screen will include an edit and delete option that allows users to manage their favorite restaurant's list. For example, users may be able to tap or swipe on a restaurant listing to reveal options such as "Edit", "Delete", or "Share". The edit option may allow users to update the restaurant's information, such as its name or photo. The delete option allows users to remove a restaurant from their favorites list. The Favorites Screen will also include navigation options that allow users to easily access other parts of the app. For example, the navigation

menu displayed at the bottom of the screen will provide access to other screens such as the Home Screen and the “Near Me” screen.

Backend Technicalities:

The server component of Restaurant Roulette receives requests from the UI and processes them to generate a random restaurant suggestion. The server communicates with a reliable API to retrieve restaurant data based on the user's location and preferences. The server component will be designed to be scalable and reliable so that it can handle a large number of requests from users without crashing or slowing down. The server will also be designed to cache restaurant data, so that it does not need to make a request to the API every time a user makes a request. This can improve the speed and responsiveness of the app. Additionally, the server is designed to handle errors and exceptions gracefully, so that it can recover from errors and provide a good user experience.

The app stores user preferences and other data in a database. This allows the app to provide personalized recommendations based on the user's past choices. The database is designed to be scalable and reliable so that it can handle a large amount of data without crashing or slowing down. It will also be designed to be secure, to protect user data from unauthorized access. The database will provide fast and efficient queries so that the app can quickly retrieve and analyze user data. Additionally, the database will be easily configurable, so that it can be adapted to changing user needs and preferences.

The Restaurant Roulette app can also use JSON as a data interchange format between the client and server. The client can send the user's restaurant preferences and location in JSON format to the server, which can then use that data to fetch recommendations from the API. The server can also send the recommended restaurants back to the client in JSON format, which can then be rendered on the UI. The user's preferences and past restaurant selections can be stored in JSON format as a column in the user table as this allows for more flexible and dynamic data storage. Overall, JSON can be used throughout the Restaurant Roulette app to provide a flexible and easy-to-use data interchange format, which can improve the app's overall performance and scalability. Some JSON Structures for the app may include tables and columns as such:

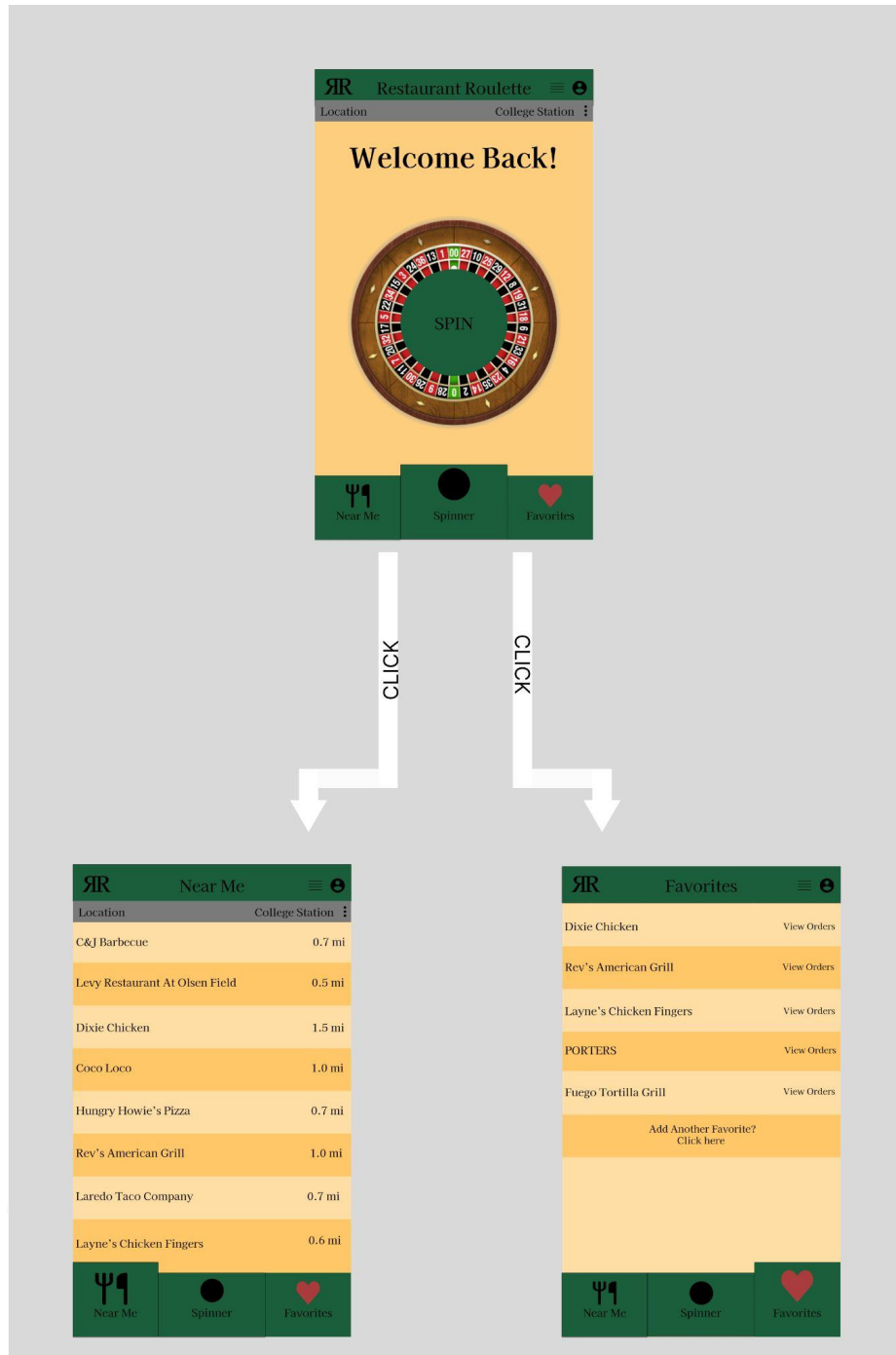
- **Restaurant Name:** This column would contain the name of the restaurant.
- **Location:** This column would include the address, city, state/province, and country of the restaurant.
- **Favorites:** This column could include a boolean value or a numerical value indicating whether the restaurant is marked as a favorite by the user and how many users have marked the restaurant as a favorite.
- **Distance:** This column could include the distance between the user's current location and the restaurant, to help users quickly find nearby options.

Assuming Restaurant Roulette will be built using Swift/Swift UI there are many classes and structures that would need to be implemented to create an easy/dynamic user experience. Here are some examples of classes and structure Restaurant Roulette may utilize:

- A class that represents a restaurant, with properties such as name, address, rating, cuisine type, and price range.
- A class that represents a user of the app, with properties such as name, location, dietary restrictions, and preferred cuisines. A class responsible for managing the list of

restaurants, with functions such as `addRestaurant`, `removeRestaurant`, and `getRecommendation`.

- A view controller that displays the roulette wheel and handles user interactions with it, such as spinning the wheel and showing the result.
- A view controller that displays a map with markers for nearby restaurants, and allows users to search for restaurants by location.
- A class responsible for making API calls to retrieve restaurant data, such as Yelp.



4. Discuss what your MVP will look like (features, functionalities, etc.) for this class, and how it can be developed beyond this class. [~2 pages, 2.5 points]

Our minimum viable product is as follows below:



Our goal is to make a great first impression when users open our app. To achieve this, we've designed our welcome screen to immediately convey the purpose of our app which is to randomly select a restaurant. The screen showcases our simple yet visually appealing design, with a clear call-to-action to explore the app's various tabs. We are still fine-tuning the tabs at the bottom of the screen, but we believe that the randomizer, a list of nearby restaurants, and users' favorite restaurants will be the most useful features. We understand that too much information can be overwhelming and deter users from using our app. Therefore, we are carefully balancing the amount of information on the landing page. We want to keep it simple yet effective, and not overload users with too much information. Although we are still working on improving the design of the randomizer wheel, we believe it conveys the essence of what we are striving for. Currently, we are also in the process of brainstorming a new name, as we want to distinguish ourselves from the other Restaurant Roulette apps out there. Our app stands out because of its simple and elegant design. While everything is still a work in progress, we are excited to offer a unique user experience to simplify the process of choosing a restaurant.

Our Near Me tab is designed to help users explore the restaurants in their immediate vicinity. Our aim is to give users not only the option of getting a random restaurant but also the ability to browse nearby options and get a better idea of what they might want. To achieve this, we will be integrating data straight from Google Maps to ensure that users get the most accurate information about the restaurants close to them. We believe that incorporating a sorter into this tab will make the user experience even better. With this feature, users can sort restaurants by price, distance, quality (as indicated by stars), and food type. We recognize that some users may prefer to make their own choices, while others may be indecisive and need some guidance. By offering both options, our app distinguishes itself from other Restaurant Roulette apps and provides users with a unique and varied experience. We are committed to providing our users with a voice in the selection process, while also giving them the flexibility to choose for themselves. This balance will help us stand out in a crowded market and make our app the go-to choice for those looking for an easy yet comprehensive way to find a great restaurant.





Our Favorites tab is a work in progress, as we strive to refine its overall design and fit it better within the aesthetic of our app. While we initially intended for it to stand out with a different color, we now believe it may be a bit too bold. However, we remain committed to ensuring that the functionality of the tab meets the needs of our users. Our vision for the Favorites tab is to allow users to track the restaurants they have visited and the dishes they have tried, providing a valuable resource for future restaurant selections. By keeping a record of what they have ordered and where they ordered it from, users can make more informed decisions when dining out. Our goal is to make it easier for consumers who struggle with selecting a restaurant, and the Favorites tab is a key feature in achieving this. We are also exploring the idea of adding another wheel to the Favorites tab, allowing users to spin through their favorite restaurants and let the app select one for them. This feature will provide users with a unique and effortless way to select a restaurant, reducing the stress of decision-making.

While we are still refining the details of our app, our vision remains clear: we want to provide users with a simple and efficient way to select a restaurant, discover nearby options, and curate lists of their favorite dining spots. In addition to these core features, we plan to add several new features to the app in the near future. One of our upcoming features is the ability for users to share their favorite restaurants with others, providing a valuable resource for finding new dining options. We also plan to incorporate a feature that promotes restaurants when they have specials or events happening, helping users discover new restaurants and deals. Additionally, we are committed to continually improving the overall look and feel of the app, so that it appeals to a wide range of users and generates word-of-mouth marketing. Our goal is to create an app that is user-friendly and enjoyable to use, and we will continue to work tirelessly to make this a reality. We are excited about the potential of our app and look forward to bringing new and innovative features to our users.