

Restaurant Reservation App

Project Milestone 1 - User Research

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Overview

Every day many individuals, young and old, travel to restaurants only to find an hour long wait for a table. Calling to make reservations is often not much easier. Our restaurant web application will provide individuals the ability to browse for restaurants, find open tables and make a reservations without leaving their seat. The application also offers a platform for the restaurant owners to put up the important details about their restaurant, such as the menu, open/closing time, dates for special offer, pictures of the place, and more!

How it works

The application expects two types of user, the customer and the restaurant owner. The restaurant owner has a dedicated page for their restaurant, they can update everything on that page to reflect what their restaurant can offer. Outside of that page, the restaurant owners are just normal customer. The customer is mostly a receiver, they get information from different pages of restaurants and make their plan after. The few things that they can do to alter the restaurant page are writing review for the restaurant, writing review for one of the item on the menu, and making a reservation.

Main Goals

- Browse through either a list of available restaurants or a map of nearby options.
 - a. Toggle between a compact list view and a Map View
 - b. Quickly view basic information about each option
- Filter by availability, rating, distance and cuisine.
- View menus, reviews and pictures of each establishment.
- Make a reservation.
- View restaurant deals.

Stakeholders

Restaurant Goers

The largest group of stakeholders are your restaurant goers. These include but are not limited to families wanting a table at their favourite pizza joint after a hockey game, or young professionals taking advantage of after work happy hour.

Some noteworthy observations:

- Young and old attend restaurants, it is vital to keep the experience especially intuitive for older individuals.
 - a. Matching items from the real world will help with this
- Generally have experience viewing restaurants online through places like google and yelp
 - a. Draw some elements from those types of apps

Likely use the service to:

- Discover new restaurant based on some category (food type, rating)
- View the menu
- View the review
- Make reservation

Restaurant Staff

Restaurant staff will be responsible for seating groups based upon the current state of the reservation system. While staff will not make up the largest group of stakeholders by count, they are still users of the system and will have significant system use times. Restaurant staff include primarily hosting staff in larger restaurants and serving staff in smaller restaurants.

Some noteworthy attributes of restaurant staff:

- They are often very busy. Especially during peak times when greater number of individuals use our application.
 - To address this, the staff side of the system will need to be very quick and easy to understand at a glance.
- Generally have access to a computer
- Are given training when hired. Could potentially be trained to use the app if required.
- Many have experience with other POS that manage reservations.
 - Mirror aspects of this where applicable

Likely use the service to:

- Manage reservation (cancel, extend)
- Manage table availability (make a table reservable after the customer leaves)

Restaurant Owners/Stakeholders

Restaurant owners are important stakeholders as they will be the ones to make the call to enroll their system in the service. They would be the ones to determine if the outcome justifies the cost. One benefit of our app is that it would provide restaurant owners with forecasts of reservations. In turn, they could save money by more accurately allocating staff to busier times.

- Often don't have a dedicated IT person nor tech literate themselves. Would be looking for a solution that works out of the box.
- Worry about the reputation of their establishment and would desire a quality product free of errors.

Likely use the service to:

- Manage the calendar of the restaurant
- Manage the description of the restaurant
- Manage the menu (add/remove item, update pictures and description)

Foodies

Foodies are individuals that are especially enthusiastic about trying new and interesting food and writing/sharing their experiences. Our app would provide a platform for them to share their experiences. They are able to review, take pictures and add ratings.

Likely use the service to:

- Review restaurant
- Review items on the menu
- Discover new restaurant based on some category (food type, rating)
- View the menu
- View the review
- Make reservation

User research

1. Paper prototyping

Summary

The prototype was easy to produce, understand, and generated lots of good feedback. Most of the features that we were trying felt nicely implemented and structured, except navigating through the photo gallery. It was gated behind many links and required too much work to just view a photo of the restaurant. We decided to display the gallery as previews on the main page of the restaurant rather than having its own page. This could make the main page feel more clustered, but we can easily adjust the amount of previews to display depends on the future evaluation. Similar to the gallery issue, we got suggestion to have the functionality of reservation implement together with the calendar instead of having its own page, and potentially moving the calendar to the main page as well. Overall this research helped us identify not only what we did good but what we could've done better, and now we have our base paper prototype, future adjustment and testing will be much easier for us to do.

What we have

Our paper prototype is built to get feedback on some important features and the layout of them. The features include displaying the search result of the restaurant, restaurant menu, calendar, photo, unique page for each item on the menu (includes review, photo). We believe these functionalities are the most important and how we display them will be essential to have good usability for new users. We have one piece of paper representing one page of the website, this allows us to quickly slap one page on top of another when the user clicks a link.

Why this user research method

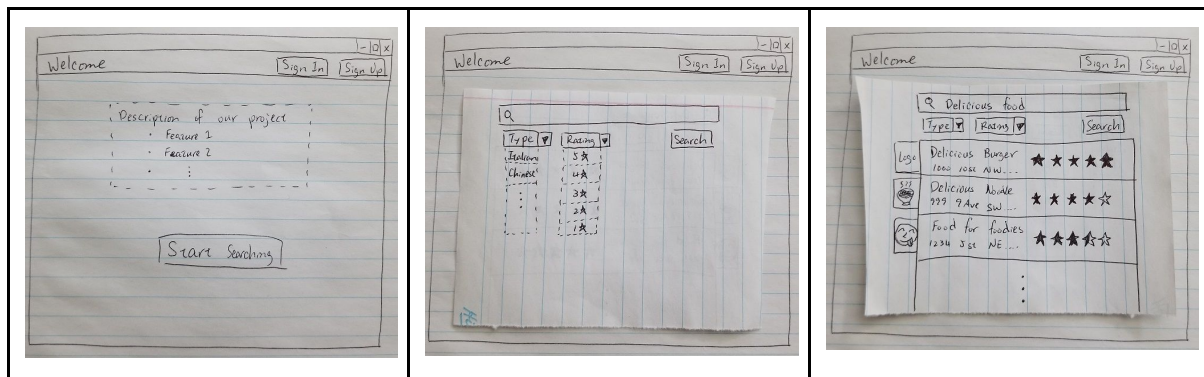
We choose paper prototyping to focus on refining and getting some feedback about the layout design, the flow of the website, and what are the must have functionality. Since we have many features that we felt are essential for our project, we think it's important for us to figure out which of them are needed and if we can include them all without making the website difficult to navigate for less experienced users. This particular user research method also allows us to produce future paper prototype segments and test them without the need of remaking everything from the start.

Experience when conducting research

Two major confusions occurred when having the user play around with our paper prototype. Since we use one piece of paper to demonstrate one page, when we put one page on top of another, a user thought it meant the new page is dynamically adding onto the existing page (Clicking one menu extends a list of items below it, pushes all other options like calendar and review down). This is not necessary an actual problem with the design of our project, but rather the design of the prototype, which could affect the feedback we get. Adding a more clear visual representation of refreshing or redirecting to a new page could fix this problem.

Another issue was that some features that are not being evaluate, but the user didn't know and try to play with it. At this stage of the development, we are still trying to get the essential down, so features like sign in and sign up are just too simple and trivial to our main focus. In the future we will make everything as segmented as possible, that way we can dynamically add or remove them when presenting our prototype for our user to try to reduce the amount of confusion.

Building a paper prototype was very helpful for our development. We were able to have a clear visual representation of what the final product might look like, as well as finding out what works and what doesn't. The user was also able to explain their suggestion better (this part is too big, too many stuff on this page, etc)





2. Survey

Summary

A survey seemed to be a very appropriate method for getting information from potential users. It allows us to gather specific information, and we structured our survey in a way where users could also add their own input to gather extra information we may have initially missed during our brainstorming phase. Surveys are an effective way of collecting specific information from specific target groups.

What we have

Creating the survey was not very difficult, as we used Google Forms, which is a very simple, but effective tool for creating surveys. We were able to ask a variety of styles of questions, which also helps to retain surveyee attention. Google Forms also allows quick and easy export into a premade spreadsheet for easier data management, while also simultaneously making visual graphs to make data visualization very easy and manageable.

Survey can be found here: <https://goo.gl/forms/ERCHYZRqP6XnNSqi1>

Another good reason for using Google Forms as our tool is that you can split up the survey into sections like we did. The initial question asks if the user is using or has used similar applications, and then redirects them based on the answer. The questions asked in both sections were similar but had key differences, such as only the “Yes” users being asked whether the app they used had various features.

Why this user research method

We chose this method because it allows us to choose what type of information we will receive, while also letting us control who the information comes from to a certain degree. We can also choose the structure of information we get, such as ratings from 1-5, multiple choices from a pool of options, and short answer.

This information is then converted automatically into graphs and easily exported into spreadsheets, where we can easily further analyze the data as we see fit. The online survey method also allows us to remotely collect our data by distributing the survey on social medias, emails, applications such as Discord and Slack, and through mobile communication.

Experience when conducting research

When we conducted our research, we found that people weren't responding to our survey with the frequency that we initially expected. Possible reasons for this may include our distribution methods, how frequently many people are exposed to surveys and general uninterest in the topic. Our survey only reached a limited amount of users, so this method only gave us limited amounts of information.

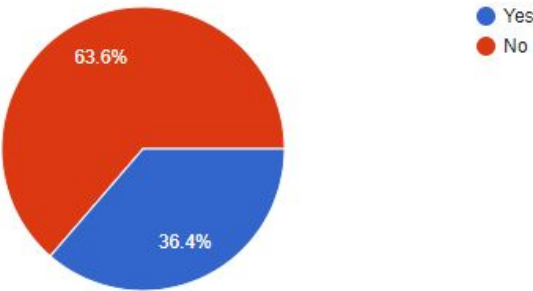
Our main distribution method was Discord and some limited social media. I feel like our social media reach could have been higher to get our survey

exposed to a larger group of people, at the cost of including people who aren't key users, and increasing our chance at intentional outlier information.

Results

Are you a current user of any restaurant application (reviews, reservations, menus, etc.)?

11 responses



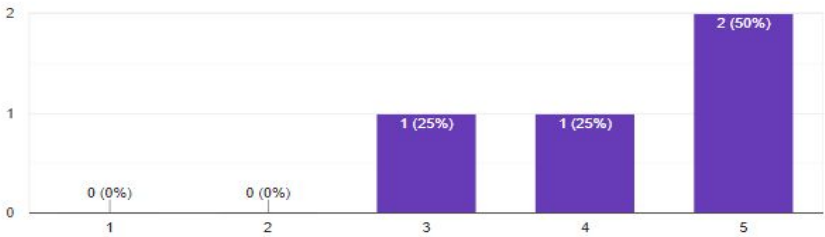
Does your current application(s) have a review(s) feature?

4 responses



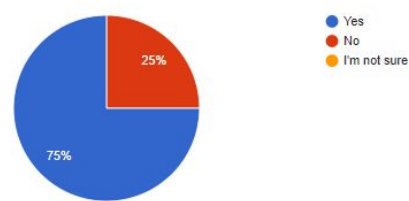
How important is a review feature to you?

4 responses



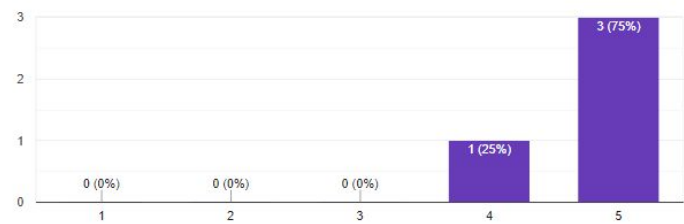
Does your current application(s) have a menu feature?

4 responses



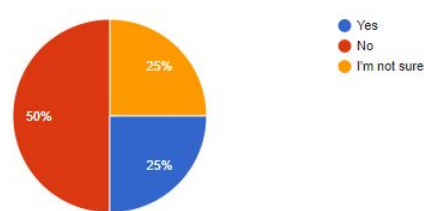
How important is a menu feature to you?

4 responses



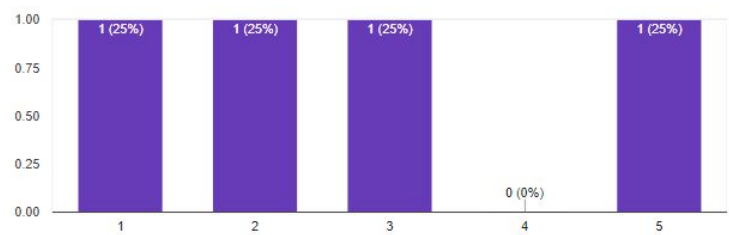
Does your current application(s) have a scheduling feature?

4 responses



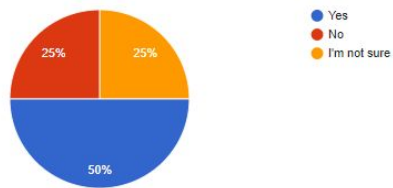
How important is a scheduling feature to you?

4 responses



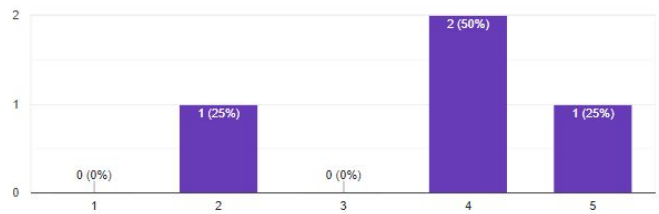
Does your current application(s) have an events/deals/discounts feature?

4 responses



How important is an event/deals/discount feature to you?

4 responses



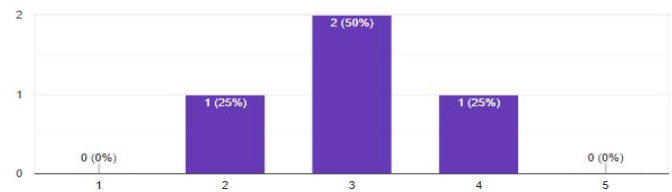
Does your current application have photos of menu items and/or the restaurant itself?

4 responses



How important are photos of menu items/the restaurant itself to you?

4 responses



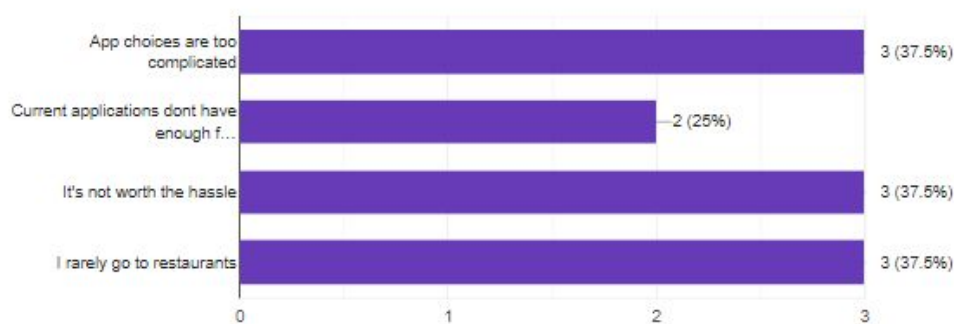
Is there any features not listed above that your current application has that are important to you?

4 responses

no
Usability/Reliability i.e. does it integrate well with restaurants or do my reservations not go through, or menu is outdated, etc.
No
pre-paid and order online

Which of the following reasons most accurately represent why you are not currently using a restaurant application?

8 responses



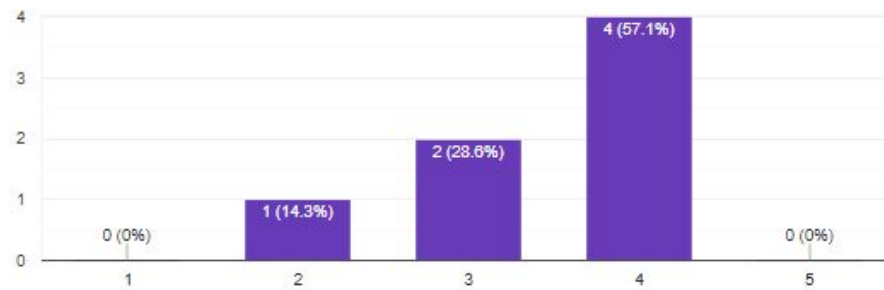
What features and characteristics would you want in an application for you to use it?

8 responses

easy to use
Cheap
view menu
Simple app with basic menu and reservation functionality. Preferably with good market preference. A large inconvenience with restaurant apps is how many different ones there are.
Reservations and menu are most important. Photos to know how to dress, etc. Weekly discount/happy hour info to help choose a restaurant.
Truly no idea
see pictures of the place
Menu

How important is a review feature to you?

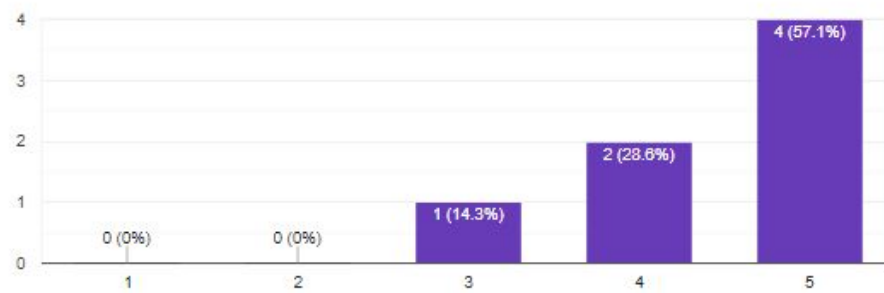
7 responses



Untitled Section

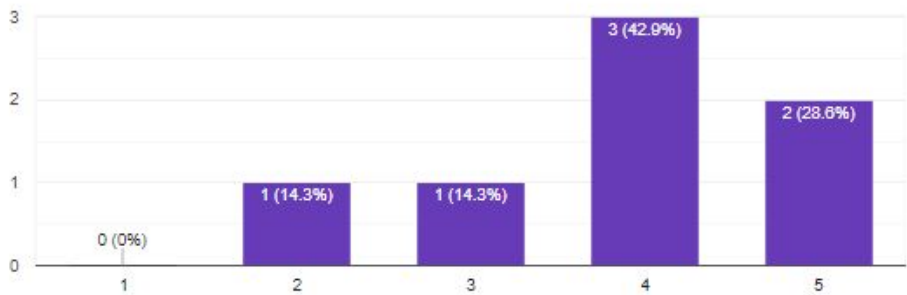
How important is a menu feature to you?

7 responses



How important is a scheduling feature to you?

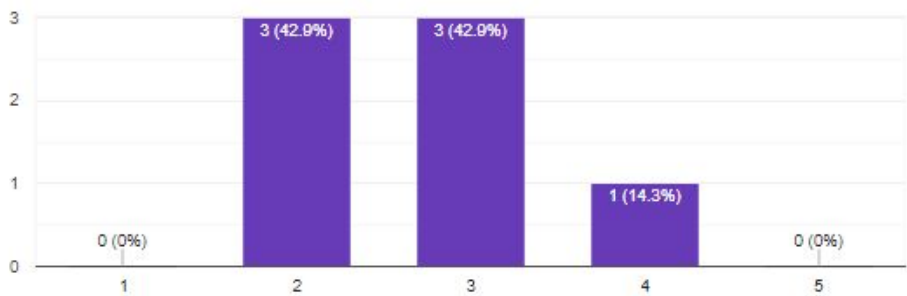
7 responses



Untitled Section

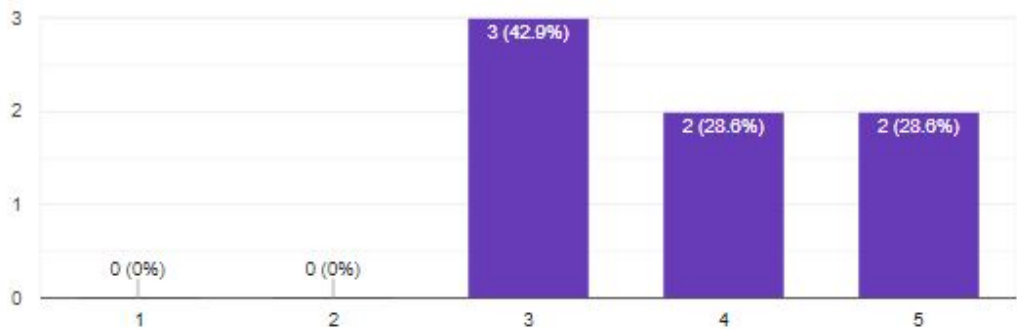
How important is an event/deals/discount feature to you?

7 responses



How important are photos of menu items/the restaurant itself to you?

7 responses



With these results, we can make a few conclusions:

- 1.) More than half the users are not currently using a restaurant app, but nearly every user put down at least 1 feature that they would want if they were to use an app, showing there is a need for a solution.
- 2.) Review features were in all applications, and were wanted by both current and potential users.
- 3.) Menu features are very wanted, and in most applications
- 4.) Scheduling features are not as common, but the demand for this feature is very spread out.
- 5.) An events/deals/discounts feature is not as common, but is demanded fairly heavily.
- 6.) Photos of menu items and the restaurant itself are in every user's application, and its demand is mixed.
- 7.) A Lot of surveyees reported they didn't use applications due to lack of features that were reported to be in a lot of applications, which shows current applications are not doing a good job with feature clarity.

Tasks

1.
 - a. Alice and Bob (both 60 years old) are planning to go to an Italian restaurant, they wish to choose one based on the rating of the place.
 - b. They are first time users and have little to no experience with technology. Bob only understands a little bit of English, but can see very well. Alice speaks fluent English, but has poor eyesight.
 - c. Because of the design, they are able to easily sort by the star rating of the restaurants given by other users.
 - d. After they decide on the location, they wish to make a reservation where they provide the time, name, and table location.
2.
 - a. Carla is a busy and impatient person, she always uses Uber Eats to get her food. Today she decides she will get some food from this Chinese place that her friend told her about.
 - b. She is a first time user.
She has basic understanding of how technology works.
She is a busy and impatient person, so she never read the terms and services, and always skips through the tutorial of any app.
 - c. Knowing nothing about this restaurant, she wishes to check out what they have to offer before ordering anything, ideally in a very informative way (pictures and ingredients)

- d. After searching for the restaurant she is able to open the menu and quickly see photos of all the food available.
- 3.
- a. David is one of the workers in a restaurant that uses this software, one of his job is to update the information of their restaurant on the app/web.
 - b. Today he has been asked to add the information of an upcoming event onto the calendar on their site (what it is and date).
 - c. He has little experience with the software.
He is being paid minimum wage, so he doesn't want to do more than what he needs and he puts very little effort into his work.
- 4.
- a. John wants to eat sushi, but he is new in town and isn't sure which place has the best selection.
 - b. He sorts the restaurants by the type of food they serve and chooses Japanese.
 - c. After doing this, he is given a list of the Japanese restaurants around him, along with a quick overview of rating and distance.
 - d. He has used the app before, so he knows he can quickly check the menus of each restaurant and finds the one with the largest selection of sushi.
- 5.
- a. Jenn is a food blogger, and needs to find the best looking foods so she can take pictures of them and get her posts shared.
 - b. She decides she doesn't have enough pictures of ice cream, so she searches for all of the shops in the area
 - c. As looks are the most important thing, she immediately looks at all the pictures that other patrons have posted to see if it is worth the trip to the shop.
- 6.
- a. Wayne scored himself a date and needs to impress.
 - b. He looks up the best rated restaurants in town, and carefully chooses one that has a romantic interior by looking at the pictures.
 - c. He realises that being told there is a wait for a table is not impressive, so he decides to make a reservation
 - d. He chooses the day of his date on the calendar, and is able to reserve the best table in the restaurant.
- 7.
- a. George is an up and coming critic, and has heard good things about a local restaurant.
 - b. He reads the reviews on the app to find what foods people like best at this restaurant, and decides to go there and try them out.
 - c. After his meal, George is able to upload a review of the restaurant so that others can know how refined his taste is.
- 8.
- a. A group of university students are looking for the best deals on beer and wings to celebrate waking up and getting to class on time.

- b. These students are proficient users of the application, as saving money is a good motivator, and this is the best place to look for deals.
- c. They open the calendar view in the app and look for specials in the area.
- d. After finding a restaurant that has a happy hour right beside the school, they go spend their student loans on a good time.