

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING
THE UNIVERSITY OF TEXAS AT ARLINGTON**

**SYSTEM REQUIREMENTS SPECIFICATION
CSE 4316: SENIOR DESIGN I
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**TEAM O
GOURMETBOOK**

**BEREKET AYALEW
BHUMIKA SHRESTHA
HYEONJUN AN
RAKSHAV PATEL
REETY GYAWALI**

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CONTENTS

1	Product Concept	8
1.1	Purpose and Use	8
1.2	Intended Audience	8
2	Product Description	9
2.1	Features & Functions	9
2.2	External Inputs & Outputs	10
2.3	Product Interfaces	10
3	Customer Requirements	14
3.1	Color Selections	14
3.1.1	Description	14
3.1.2	Source	14
3.1.3	Constraints	15
3.1.4	Standards	15
3.1.5	Priority	15
3.2	List of Restaurants	15
3.2.1	Description	15
3.2.2	Source	16
3.2.3	Constraints	16
3.2.4	Standards	16
3.2.5	Priority	16
3.3	Reservation	16
3.3.1	Description	16
3.3.2	Source	17
3.3.3	Constraints	17
3.3.4	Standards	17
3.3.5	Priority	17
3.4	Menu Previews	17
3.4.1	Description	17
3.4.2	Source	17
3.4.3	Constraints	17
3.4.4	Standards	17
3.4.5	Priority	17
3.5	Business Management	18
3.5.1	Description	18
3.5.2	Source	18
3.5.3	Constraints	18
3.5.4	Standards	18
3.5.5	Priority	18
3.6	Customer & Critique Review	18
3.6.1	Description	18
3.6.2	Source	18
3.6.3	Constraints	18
3.6.4	Standards	18
3.6.5	Priority	18

3.7	Restaurant Recommendation Banner	19
3.7.1	Description	19
3.7.2	Source	19
3.7.3	Constraints	19
3.7.4	Standards	19
3.7.5	Priority	19
4	Packaging Requirements	20
4.1	Documentation	20
4.1.1	Description	20
4.1.2	Source	20
4.1.3	Constraints	20
4.1.4	Standards	20
4.1.5	Priority	20
4.2	Codebase	20
4.2.1	Description	20
4.2.2	Source	20
4.2.3	Constraints	20
4.2.4	Standards	20
4.2.5	Priority	20
4.3	App Resources	21
4.3.1	Description	21
4.3.2	Source	21
4.3.3	Constraints	21
4.3.4	Standards	21
4.3.5	Priority	21
5	Performance Requirements	22
5.1	Fast Response Time	22
5.1.1	Description	22
5.1.2	Source	22
5.1.3	Constraints	22
5.1.4	Standards	22
5.1.5	Priority	22
5.2	Handle High Traffic	22
5.2.1	Description	22
5.2.2	Source	22
5.2.3	Constraints	22
5.2.4	Standards	23
5.2.5	Priority	23
5.3	Fast Data Synchronization	23
5.3.1	Description	23
5.3.2	Source	23
5.3.3	Constraints	23
5.3.4	Standards	23
5.3.5	Priority	23
5.4	Low Error Rate	23
5.4.1	Description	23

5.4.2	Source	23
5.4.3	Constraints	23
5.4.4	Standards	23
5.4.5	Priority	23
5.5	Full-time Availability	23
5.5.1	Description	23
5.5.2	Source	24
5.5.3	Constraints	24
5.5.4	Standards	24
5.5.5	Priority	24
6	Safety Requirements	25
6.1	Laboratory equipment lockout/tagout (LOTO) procedures	25
6.1.1	Description	25
6.1.2	Source	25
6.1.3	Constraints	25
6.1.4	Standards	25
6.1.5	Priority	25
6.2	National Electric Code (NEC) wiring compliance	25
6.2.1	Description	25
6.2.2	Source	25
6.2.3	Constraints	25
6.2.4	Standards	25
6.2.5	Priority	25
6.3	RIA robotic manipulator safety standards	25
6.3.1	Description	25
6.3.2	Source	26
6.3.3	Constraints	26
6.3.4	Standards	26
6.3.5	Priority	26
7	Maintenance & Support Requirements	27
7.1	Application Maintenance	27
7.1.1	Description	27
7.1.2	Source	27
7.1.3	Constraints	27
7.1.4	Standards	27
7.1.5	Priority	27
7.2	Server & Database Maintenance	27
7.2.1	Description	27
7.2.2	Source	27
7.2.3	Constraints	27
7.2.4	Standards	27
7.2.5	Priority	27

8 Other Requirements	28
8.1 Cross-platform Compatibility	28
8.1.1 Description	28
8.1.2 Source	28
8.1.3 Constraints	28
8.1.4 Standards	28
8.1.5 Priority	28
9 Future Items	29
9.1 Full-time Availability	29
9.1.1 Description	29
9.1.2 Source	29
9.1.3 Constraints	29
9.1.4 Standards	29
9.1.5 Priority	29

LIST OF FIGURES

1	Sequence Diagram of the General Data Flow	10
2	Sign-Up/ Login Page	12
3	Home Page	13
4	Color Palette	14

1 PRODUCT CONCEPT

1.1 PURPOSE AND USE

GourmetBook will allow users to reserve tables at fine-dining restaurants. It is built for people to reserve fine dining tables instead of checking the availability with a phone call and a long waiting period.

Why does it need to have a better way to make a reservation? The growing demand and curiosity in experiencing well-treated and high-end quality cuisines are something that has recently caught people's attention through various sources of media. And there is no single application that aggregates all those fancy restaurants in one place. Moreover, Fine-dining restaurants tend to stay close to the traditional ways of reservations such as phone and website. In addition, there are people with credit cards who get priority to reserve since not everyone has access to this privilege we are here building an application for the rest of the people who could enjoy fine dining without having specific credit cards. This app is going to be easy to use.

Once the user creates a login for the application they should see the home screen where the application gives them options to select restaurants. They can also preview the menu of the restaurant by clicking a particular restaurant. Once the user has decided on a restaurant they can select a date and time to see if there are any available tables for the time they wish. Users will need to provide their credit card information because this is a fine dining reservation and to prevent no-show deficits on the venues. Once users have successfully created a reservation they should get an email. The email should include the date and time of the reservation and also the location of the restaurant. Both the customers and restaurant owners will strongly be benefited by using GourmetBook in terms of convenience.

1.2 INTENDED AUDIENCE

The intended audience would be fine dining lovers or first-time birds that would want to try fine dining. Fine dining restaurants are typically expensive so we could assume that this application would be used most often by wealthy people. This product is to be made publicly to the customers and commercially to the restaurant owners.

2 PRODUCT DESCRIPTION

Our product is a mobile based application built to enhance dining experience for customers and efficient way for restaurant to provide service. With user-friendly interface and innovative features all included just in one application is truly an upgrade to hospitality field. This app is aim to streamline the reservation process, offer convenient online pre-ordering, provide event info nearby, and ensure efficient restaurant management. This production description provides an overview of the app's primary operational aspects, highlighting its key features and functions, and emphasizing critical user interactions and interfaces.

2.1 FEATURES & FUNCTIONS

Product capabilities : This mobile app offers features such as table reservations, event discovery, smart restaurant selection, online menu for Pre-ordering, real-time arrival updates, ratings and reviews of the restaurant. The app aims to provide a efficient and convenient way for users to interact with restaurants, making their dining experiences more enjoyable by just one application.

Product disabilities : This mobile app however is not designed to deliver food services. Also, it does not handle the Payment services directly but uses third party to handle Payment API.

The user interface is very simple and straight forward with features displaying on main home page. Buttons such as Search bar, list of restaurants, events, filter for date and number of people will be seen. Similarly, under restaurant lists, restaurants availability, menu to order and reviews are displayed. On the bottom of the main page, current Reservation made, history of reservation and orders in process buttons are displayed.

Principle Parts/Components

1. Search Restaurants bar

This feature is located at the top of the main page screen where any specific restaurants users want can be searched and select.

2. Restaurants tab

This button displays all the list of restaurant available. Each restaurant has Check availability tab where preferred time-slots can be selected and confirm reservation. Similarly, menu tab is displayed to place a pre-order and give restaurant estimated time of arrival for quick services. And lastly, Reviews tab are displayed to see the google reviews of other customers about the restaurant.

3. Events

This event button displays a list of nearby events and special occasions organized by the restaurants. Users can view event details and RSVP if interested.

4. Filter tab

This is the filter feature that enables user to select preferred date and number of people to help find the restaurant meeting that requirement.

5. Your Reservation

This section shows information about ongoing and upcoming reservations

6. History

This section shows all the history of the reservation made and events attended.

7. Your order

This section shows all the ongoing order placed at specific restaurant and the order status.

8. Notification Bar

This component handles real-time updates and notifications. Users receive alerts about their reservation status, order progress and other event reminders.

Associated External Elements

1. Third-Party Payment Gateway

The app requires a third-party payment gateway to handle financial transactions secure and efficiently.

2. GPS system

The app requires real time GPS integrated to keep track of restaurants and events nearby and also track customer to see their estimated arrival time.

2.2 EXTERNAL INPUTS & OUTPUTS

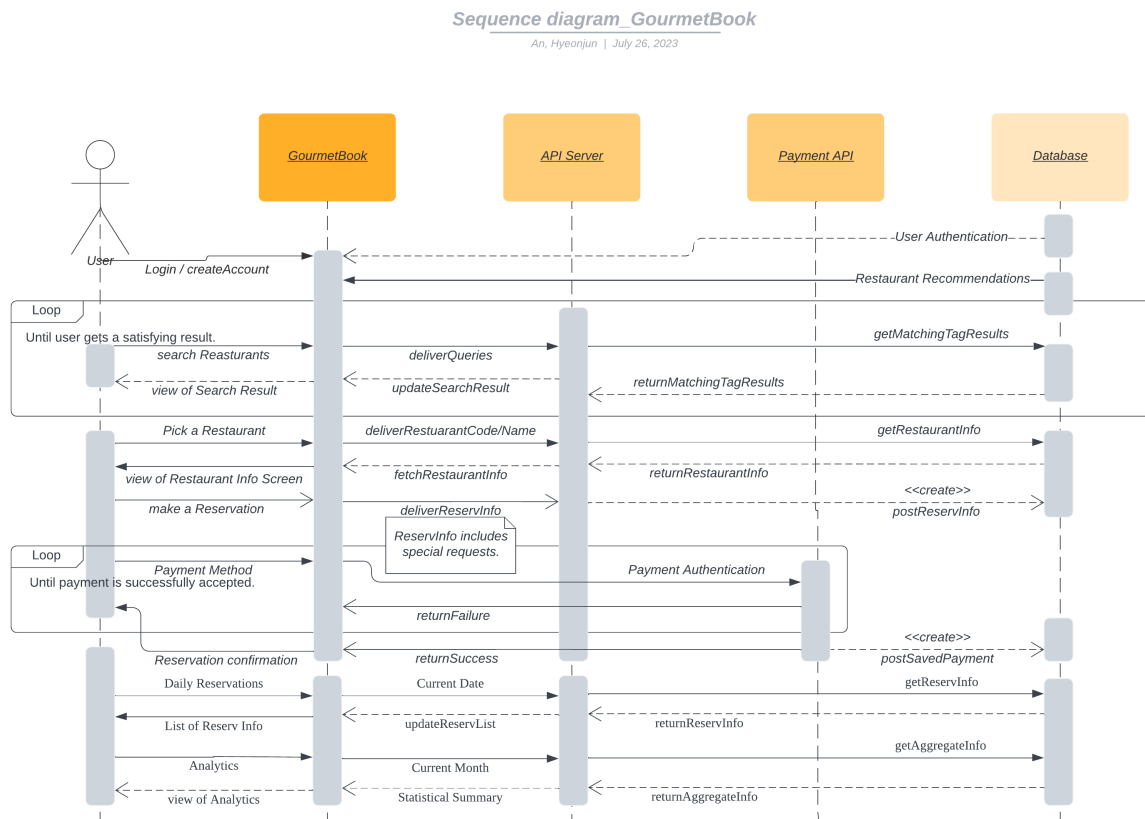


Figure 1: Sequence Diagram of the General Data Flow

2.3 PRODUCT INTERFACES

Operational Interfaces for End-Users:

1. Home Screen

User will be able to access home screen after logging in where all the main features will be displayed.

2. Restaurant Search

User can see the Search bar that can be used to lookup specific restaurants.

3. Check Availability

This section can be found under each restaurant listed for reservation management.

4. Menu tab

This section can be found under each restaurant listed for ordering food from that restaurant.

5. Reviews

This section can be found under each restaurant listed to see the reviews written by other customers.

6. Your reservation

This section is found on the bottom part of Home screen where user can access upcoming reservation information

7. History

This section is found on the bottom part of home screen that displays all the past reservation and events attended.

8. Your orders

This section is found on the bottom right of the home screen that displays all the ongoing order placed.

9. Filter

This section is displayed to users to filter out date and number of people attending.

Operational Interfaces for Administrators:

1. Restaurant Management Dashboard

Administrators can access a web-based dashboard to manage restaurant-related information and updates.

2. Reservation Management tab

Administrators are given access to dashboard that can view, modify and update the reservation.

3. Order management tab

Administrators can modify menu and see the order placed by customer and ring it to kitchen.

4. Event management tab

Administrators can view, modify and update the events for specific time

5. Customer Reviews tab

Administrators can view the reviews and reply customers.

Operational Interfaces for Maintainers

1. Maintenance Console

Developer can access console to monitor the performance and network traffic if any.

2. Server Management

Developer can access back-end server like database and front-end to modify any features customers ask for.

3. Bugs and troubleshooting

Developer can undergo troubleshooting and fixing bugs to solve technical issues

Mock Screen for User interface

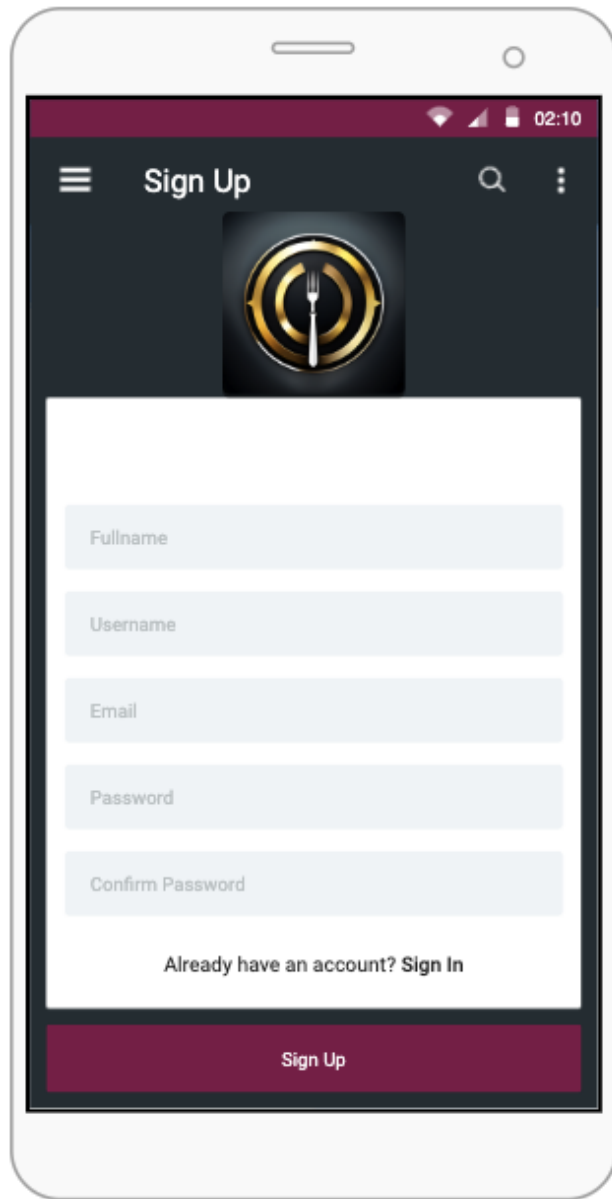


Figure 2: Sign-Up/ Login Page

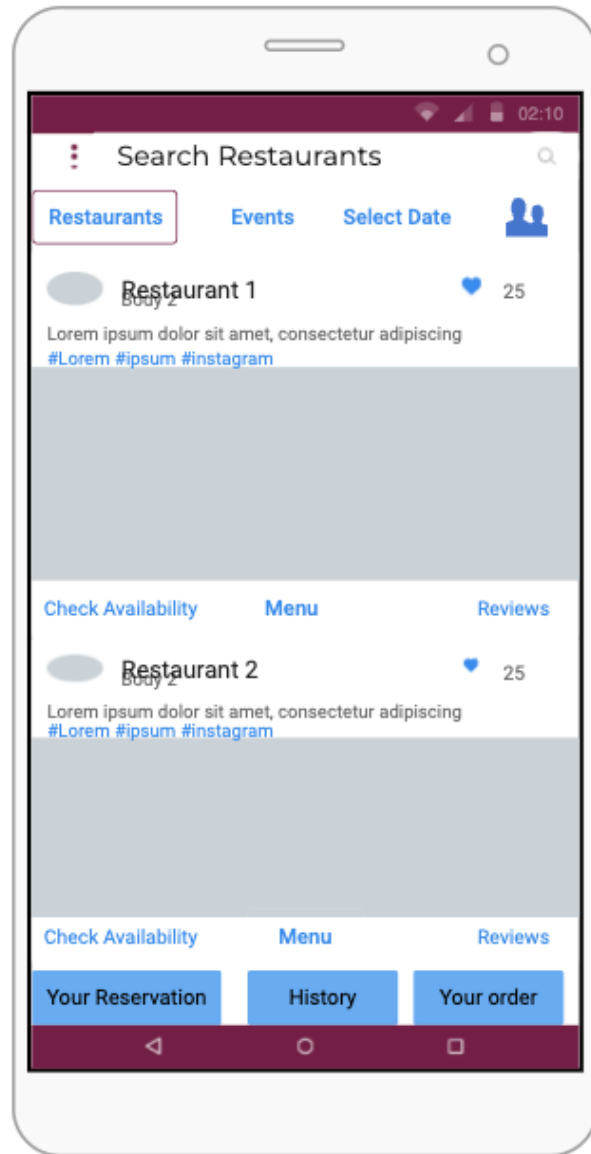


Figure 3: Home Page

3 CUSTOMER REQUIREMENTS

GourmetBook is targeting people who are wealthy and have spending power; therefore, most of the features and functionalities must be well-blended with their standard of living.

As witnessed in the logo of the application, the color selections are mostly black and gold based, and the designs for this application are intended to deliver an elegant and luxurious atmosphere to the users so that it can make the users feel like receiving high-quality service.

3.1 COLOR SELECTIONS

3.1.1 DESCRIPTION

Two colors are selected as the primary colors that will be used throughout the design process. One is light gray, of which the hex-color code is #33373C, and the other is gold, of which the hex-color code is #E4BB58.

For the light gray, the possible variant colors (different shades) are the following:

Color Variant	Hex-color Code	RGB Code	RGB A Code	RGB B Code
Variant 1	#6D737A	rgb(109,115,122)	rgba(109,115,122,1)	rgb0(0.427,0.451,0.478)
Variant 2	#50555C	rgb(80, 85, 92)	rgba(80, 85, 92,1)	rgb0(0.314,0.333,0.361)
Variant 3	#171A1E	rgb(23, 26, 30)	rgba(23, 26, 30,1)	rgb0(0.09,0.102,0.118)
Variant 4	#111720	rgb(17, 23, 32)	rgba(17, 23, 32,1)	rgb0(0.067,0.09,0.125)

Table 2: List of Possible Color Variants for #33373C

For the light gray, the possible variant colors (different shades) are the following:

Color Variant	Hex-color Code	RGB Code	RGB A Code	RGB B Code
Variant 1	#FFE8B1	rgb(255,232,177)	rgba(255,232,177,1)	rgb0(1,0.91,0.694)
Variant 2	#FFDC87	rgb(255,220,135)	rgba(255,220,135,1)	rgb0(1,0.863,0.5291)
Variant 3	#CA9E33	rgb(202,158, 51)	rgba(202,158, 51,1)	rgb0(0.792,0.62,0.2)
Variant 4	#A27918	rgb(162,121, 24)	rgba(162,121, 24,1)	rgb0(0.635,0.475,0.094)

Table 3: List of Possible Color Variants for #E4BB58

The secondary colors are selected as followed:

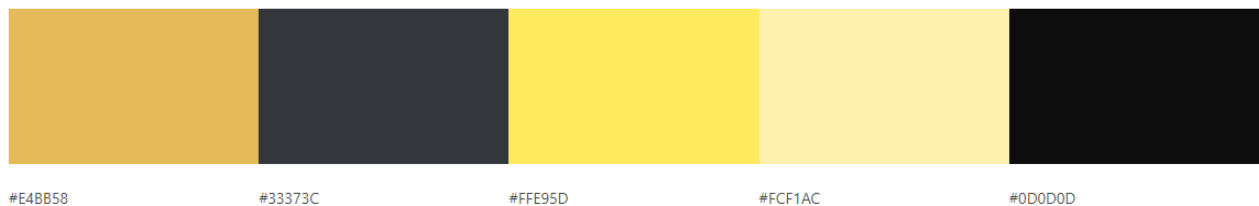


Figure 4: Color Palette

The number of colors selected is intended to be minimized to avoid confusing design patterns. The selected set of colors will be used throughout the application with respect to the 6:3:1 UI color rules, which is the color usage ratio between the primary, secondary, and the rest of the colors.

3.1.2 SOURCE

Hyeonjun An

3.1.3 CONSTRAINTS

Excessive and unnecessary contrast between colors may end up resulting in a cheap and out-of-style atmosphere throughout the application as opposed to the intention of the design.

3.1.4 STANDARDS

According to Apple Inc.'s guidance over color selections for application design specifies how to select proper sets of colors.

- Use color sparingly in nongame apps. In a nongame app, overuse of color can make communication less clear and can distract people. Prefer using touches of color to call attention to important information or show the relationship between parts of the interface. [4]
- Test your app's color scheme under a variety of lighting conditions. For example, colors can look different when you run your app outside on a sunny day or in dim light. [4]
- Avoid using colors that make it hard to perceive content in your app. For example, insufficient contrast can cause icons and text to blend with the background and make content hard to read, and people who are color blind might not be able to distinguish some color combinations. [4]

3.1.5 PRIORITY

Critical (must have or product is a failure)

3.2 LIST OF RESTAURANTS

3.2.1 DESCRIPTION

The users, who are the potential customers in GourmetBook's system, must have a list of the registered restaurants and a view of the restaurant's information.

- List of Restaurants in Main Screen

This feature will be a relatively small list of restaurants shown on the main screen. The restaurants shown will be selected based on the ratings and user preferences.

- List of Restaurants in Search Result

This feature will be initiated when a user searches for a restaurant. It will prompt a long list of restaurants that fit into the user's needs using a tag system. Each restaurant will be registered with some tags that summarize what type of food and services the restaurant offers.

- View of Restaurant Information

This feature will be initiated when a user clicks on a restaurant summary on either the main or the search screen. The information prompted will be such that:

1. Restaurant Title
2. Official Restaurant Rating and History
3. Restaurant Address (Map included), Phone numbers
4. Information about the Owner Chef
5. Information about the Head Chef
6. Brief Information about the Crews
7. Menu Previews
8. Reservation Button

3.2.2 SOURCE

Customer

3.2.3 CONSTRAINTS

3.2.4 STANDARDS

- **Obtain Permission:** Ensure you have proper permission to collect and display the restaurant's information in your app. This may involve getting explicit consent from the restaurant owners or managers to list their establishments.
- **Data Accuracy:** Strive for accuracy in the information you provide. This includes the restaurant's name, address, contact details, operating hours, and other relevant information. Regularly update the data to reflect any changes.
- **Legal Compliance:** Comply with data protection laws and regulations in your jurisdiction. This might involve informing users about data collection and usage through a privacy policy and obtaining consent where necessary.
- **Terms of Use:** Establish clear terms of use for your app, outlining what users can expect and what actions are prohibited.
- **User-Generated Content:** If your app allows users to leave reviews or contribute content, have systems in place to monitor and moderate the content to prevent misuse or inappropriate material.
- **Data Security:** Take measures to safeguard any user data and restaurant information you collect. Implement security protocols to protect against data breaches.
- **Respect Intellectual Property:** Be cautious about using copyrighted material, trademarks, or logos of restaurants without permission. Also, avoid plagiarism when presenting restaurant descriptions or other content.
- **Review Policy:** Implement a policy for dealing with user feedback or complaints about restaurant listings to maintain a high standard of service and reliability.
- **Consistency and Organization:** Organize the information in a consistent manner, making it easy for users to find what they need. Standardize data fields and avoid ambiguities.
- **Attribution:** If you use data from third-party sources, make sure to attribute the information correctly and follow any licensing terms.

[3] [5]

3.2.5 PRIORITY

Critical (must have or product is a failure)

3.3 RESERVATION

3.3.1 DESCRIPTION

Once a user decides to make a reservation after carefully reading through the information, he or she will be prompted to a reservation screen where they can select the date of reservation, prior menu selection, and special request regarding food allergies/substitution of a menu item.

The user also must provide their phone number, optionally email address to receive the confirmation of reservation, and card information to prevent no-show customers or to charge for late cancellation

3.3.2 SOURCE

Customer

3.3.3 CONSTRAINTS

Not Applicable

3.3.4 STANDARDS

This functionality follows the same standards and guidelines as "3.2 List of Restaurants".

3.3.5 PRIORITY

Critical (must have or product is a failure)

3.4 MENU PREVIEWS

3.4.1 DESCRIPTION

This feature is to help the users visualize and remotely experience some of the menus of the restaurant. Clear and high-resolution images and optionally a short video clip of the look of the venues will be provided by the restaurants. This feature will be displayed in a horizontally scrolling grid view.

3.4.2 SOURCE

Customer

3.4.3 CONSTRAINTS

The size of the images and videos updated by the restaurants must be reasonably big so that it does not interrupt the clear views of the menus. More importantly, meaning by "reasonably big", it must not affect the entire service performance because of the excessive size of the contents.

3.4.4 STANDARDS

Since this feature requires the use of images and videos, copyright is the most important point to be asserted. According to Title 17 of the United States Code (U.S.C) [1],

1. Section 102: This section defines the types of works eligible for copyright protection. It includes literary works, musical works, dramatic works, pictorial, graphic, and sculptural works (which cover images and illustrations), and audiovisual works (which cover videos).
2. Section 106: This section enumerates the exclusive rights granted to copyright owners, which include the right to reproduce, distribute, display, and perform their copyrighted works. For images and videos, this means that the copyright owner has the sole authority to control how their works are used and distributed.
3. Section 107: This section outlines the "fair use" doctrine, which allows limited use of copyrighted materials without permission from the copyright owner. Fair use is a critical exception that permits the use of copyrighted material for purposes such as criticism, comment, news reporting, teaching, scholarship, or research.

3.4.5 PRIORITY

High (very important to customer acceptance, desirability)

3.5 BUSINESS MANAGEMENT

3.5.1 DESCRIPTION

This feature is for restaurant management which provides the daily number of reservations made and trends in change of the number of customers within a month. It also provides brief information on reservations with a special request if exists.

3.5.2 SOURCE

Customer

3.5.3 CONSTRAINTS

Since this feature is not provided on a separate application, it cannot provide detailed data and interpretation of the trends. As the system gets settled, it is possible to divide the management features and customer features into two separate applications so that the management functionalities can provide more advanced assistance to restaurant owners.

3.5.4 STANDARDS

3.5.5 PRIORITY

Moderate (should have for proper product functionality);

3.6 CUSTOMER & CRITIQUE REVIEW

3.6.1 DESCRIPTION

This feature will be displayed on the restaurant's information screen. Only verified and trustworthy customer reviews and official reviews from credible sources such as Michelin and The World's 50 Best Restaurants will be shown to the customers.

3.6.2 SOURCE

Customer

3.6.3 CONSTRAINTS

The use of official reviews may conflict with copyrights.

3.6.4 STANDARDS

1. Copyright Ownership: Remember that restaurant reviews, like any other creative content, are protected by copyright. The original authors or platforms that host the reviews typically hold the copyright. Therefore, you should not reproduce or use the reviews without permission from the copyright owners. [1]
2. Digital Millennium Copyright Act (DMCA): In the United States, the DMCA provides a framework for copyright owners to enforce their rights online and for internet service providers to address copyright infringement claims. [6]

3.6.5 PRIORITY

High (very important to customer acceptance, desirability)

3.7 RESTAURANT RECOMMENDATION BANNER

3.7.1 DESCRIPTION

This feature is a small recommendation functionality that will be displayed on the main screen. The number of restaurants being recommended will be no more than 5 to prevent excessive information on the first screen. The recommendation will be based on the user's preference using the tag system mentioned in the "List of Restaurants" section. The recommendations will be filled up with top-rated restaurants that match the user's preference.

3.7.2 SOURCE

Customer

3.7.3 CONSTRAINTS

1. **Transparency and Clarity:** The recommendations presented in your application should be transparent and clear to the users. Users should know why a specific recommendation is being made and what data is being used to generate those suggestions.
2. **Avoid Deceptive Practices:** Recommendations should not be misleading or deceptive. Do not use clickbait or false information to attract users to certain products or services.
3. **Age-Appropriate & Legal Content:** The recommendation should ensure that the recommendations are age-appropriate and comply with relevant laws.

3.7.4 STANDARDS

The constraints listed above are according to the Federal Trade Commission Guides on Advertising and Marketing. [2]

3.7.5 PRIORITY

Moderate (should have for proper product functionality);

4 PACKAGING REQUIREMENTS

Packaging requirements are necessary for our client to be able to install, use, and distribute the mobile application. Since our application is software-based with no hardware components, it will be delivered through code files and documentation with instructions on how to configure and use the application. The client will also need the necessary media used in the app (images, videos, etc.).

4.1 DOCUMENTATION

4.1.1 DESCRIPTION

The clients will receive a user guide on how to use the app as well as technical documentation on how to configure and run the app. The code files will also be heavily documented with comments.

4.1.2 SOURCE

Reety

4.1.3 CONSTRAINTS

The language used in the informal user guide must be simple, easy-to-understand by people without technical background. The language used in the technical documentation must be detailed enough that other developers can continue maintaining/updating the application.

4.1.4 STANDARDS

Documentation is written in clear and concise language and organized in a structured format.

4.1.5 PRIORITY

Critical

4.2 CODEBASE

4.2.1 DESCRIPTION

The main deliverable is the codebase. This includes all the HTML, CSS, and JavaScript files that make up the app's user interface and functionality. We will likely send a link to the GitHub where we have stored all these files as well as their versions throughout development.

4.2.2 SOURCE

Reety

4.2.3 CONSTRAINTS

There may be too many code files and the code file sizes may be too large. We will also need to consider licensing requirements for our code (whether to open-source).

4.2.4 STANDARDS

When sending a version control repository like on GitHub, make sure client has access to it. Make sure sensitive files and info are transferred securely. Include a clear statement of the code's licensing terms. Code files should be properly documented. The code should be high quality.

4.2.5 PRIORITY

Critical

4.3 APP RESOURCES

4.3.1 DESCRIPTION

The media used in the app such as fonts, image, video, and audio files.

4.3.2 SOURCE

Reety

4.3.3 CONSTRAINTS

Some media may come with licensing restrictions. They will be taken into consideration before officially sent to clients.

4.3.4 STANDARDS

4.3.5 PRIORITY

Critical

5 PERFORMANCE REQUIREMENTS

Our mobile app must be able to handle various requests from the user. The user may want to search for a restaurant, reserve tables there, pay a priority fee by credit card, or receive a confirmation email. All of these need to happen fast and efficiently in coordination with back-end server. We would also like our app to accommodate as many users and requests as possible. We will likely use a tool to track the performance metrics (KPIs). Below are the requirements dictating performance of our app.

5.1 FAST RESPONSE TIME

5.1.1 DESCRIPTION

The app should open and show the main interface within 2-3 seconds. Moving between screens or sections within the app should take no more than 1-2 seconds. When users interact with buttons, menus, or other elements, the app should give instant feedback (within milliseconds).

Loading data from a server or database should ideally take no longer than 3-5 seconds. For larger content, such as images or videos, loading times may be slightly longer but should still be optimized. To maximize performance, we will prioritize loading text before images. Search results should be displayed within 1-3 seconds.

5.1.2 SOURCE

Reety

5.1.3 CONSTRAINTS

Some constraints include the speed of the user's network connection, whether the hardware in the user's device can perform complex tasks quickly, the server performance, code efficiency, third-party API response time, and loading time of large content (images, videos, etc.)

5.1.4 STANDARDS

Standards for fast response time are dictated by user expectations and industry best practices. Generally, the above guidelines are used by developers and UI designers to provide the best user experience.

5.1.5 PRIORITY

Critical

5.2 HANDLE HIGH TRAFFIC

5.2.1 DESCRIPTION

To support an expanding user base without performance degradation, we will optimize our database capacity, use caching to save loading time, and optimize our code. We want the application to have high performance for both new and existing users. The application will process many requests without downtime or interruptions and track number of concurrent users

5.2.2 SOURCE

Reety

5.2.3 CONSTRAINTS

The database and server capacity is limited. Too many concurrent users may cause performance to decline. Also, there are security issues if there are too many users and user information is not protected.

5.2.4 STANDARDS

As a rough estimate, we aim to accommodate ten to a few hundred concurrent users. We will maximize the throughput (number of requests processed) and the retention rate (number of existing users in database).

5.2.5 PRIORITY

High

5.3 FAST DATA SYNCHRONIZATION

5.3.1 DESCRIPTION

The app should synchronize data (available tables, reservation status, user location, etc.) efficiently between the user's device and the back-end server.

5.3.2 SOURCE

Reety

5.3.3 CONSTRAINTS

Limited database and server capacity, the user's internet connection, the user's device (hardware),

5.3.4 STANDARDS

The standards dictating fast response time should be used. For fast response time, data synchronization must be done within a few seconds.

5.3.5 PRIORITY

Critical

5.4 LOW ERROR RATE

5.4.1 DESCRIPTION

Probability of user request resulting in error should be low. We can track the error rate of our application by counting the number of exceptions thrown by application and the HTTP error percentage. (the number of web requests that were unsuccessful and that returned error).

5.4.2 SOURCE

Source

5.4.3 CONSTRAINTS

Detailed description of applicable constraints...

5.4.4 STANDARDS

5.4.5 PRIORITY

Priority

5.5 FULL-TIME AVAILABILITY

5.5.1 DESCRIPTION

Application should be stable and available for use 24/7, with few interruptions and downtime.

5.5.2 SOURCE

Reety

5.5.3 CONSTRAINTS

The first iteration of our app will likely need regular maintenance, leading to a lot of downtime.

5.5.4 STANDARDS

5.5.5 PRIORITY

Future

6 SAFETY REQUIREMENTS

Include a header paragraph specific to your product here. Safety requirements might address items specific to your product such as: no exposure to toxic chemicals; lack of sharp edges that could harm a user; no breakable glass in the enclosure; no direct eye exposure to infrared/laser beams; packaging/grounding of electrical connections to avoid shock; etc.

6.1 LABORATORY EQUIPMENT LOCKOUT/TAGOUT (LOTO) PROCEDURES

6.1.1 DESCRIPTION

Any fabrication equipment provided used in the development of the project shall be used in accordance with OSHA standard LOTO procedures. Locks and tags are installed on all equipment items that present use hazards, and ONLY the course instructor or designated teaching assistants may remove a lock. All locks will be immediately replaced once the equipment is no longer in use.

6.1.2 SOURCE

CSE Senior Design laboratory policy

6.1.3 CONSTRAINTS

Equipment usage, due to lock removal policies, will be limited to availability of the course instructor and designed teaching assistants.

6.1.4 STANDARDS

Occupational Safety and Health Standards 1910.147 - The control of hazardous energy (lockout/tagout).

6.1.5 PRIORITY

Critical

6.2 NATIONAL ELECTRIC CODE (NEC) WIRING COMPLIANCE

6.2.1 DESCRIPTION

Any electrical wiring must be completed in compliance with all requirements specified in the National Electric Code. This includes wire runs, insulation, grounding, enclosures, over-current protection, and all other specifications.

6.2.2 SOURCE

CSE Senior Design laboratory policy

6.2.3 CONSTRAINTS

High voltage power sources, as defined in NFPA 70, will be avoided as much as possible in order to minimize potential hazards.

6.2.4 STANDARDS

NFPA 70

6.2.5 PRIORITY

Critical

6.3 RIA ROBOTIC MANIPULATOR SAFETY STANDARDS

6.3.1 DESCRIPTION

Robotic manipulators, if used, will either housed in a compliant lockout cell with all required safety interlocks, or certified as a "collaborative" unit from the manufacturer.

6.3.2 SOURCE

CSE Senior Design laboratory policy

6.3.3 CONSTRAINTS

Collaborative robotic manipulators will be preferred over non-collaborative units in order to minimize potential hazards. Sourcing and use of any required safety interlock mechanisms will be the responsibility of the engineering team.

6.3.4 STANDARDS

ANSI/RIA R15.06-2012 American National Standard for Industrial Robots and Robot Systems, RIA TR15.606-2016 Collaborative Robots

6.3.5 PRIORITY

Critical

7 MAINTENANCE & SUPPORT REQUIREMENTS

7.1 APPLICATION MAINTENANCE

7.1.1 DESCRIPTION

The application maintenance will usually be resolving technical issues related to the actual use cases such as bug and malfunctioning. Moreover, since the application takes the personal information and credentials, it is crucial that the application is maintained safely preventing any suspicious analysis of the source code and unauthorized access from the application to the database. Regular patching and update will be scheduled accordingly with respect to the tickets submitted by the users.

7.1.2 SOURCE

Hyeonjun An

7.1.3 CONSTRAINTS

7.1.4 STANDARDS

7.1.5 PRIORITY

Critical

7.2 SERVER & DATABASE MAINTENANCE

7.2.1 DESCRIPTION

Server & Database maintenance will be administrated with a checklist that asserts the operation ability and security of the backend part of the application. Unauthorized access or attempt to access will be assessed and analyzed in a report and the maintenance task will be assigned according to the report. Data or system migration may happen any time of the service. In order to maintain the reasonable availability of the application and service, it will be notified to the users and limit the part of functionalities sequentially so that the entire service can stay up and connected with the users.

7.2.2 SOURCE

Hyeonjun An

7.2.3 CONSTRAINTS

A server with bigger operational capability and higher performance will be required as the number of customer users and restaurant owner users increases. The system may experience loss of data while migrating into a new environment and systems if needed and demanded.

7.2.4 STANDARDS

7.2.5 PRIORITY

critical and future

8 OTHER REQUIREMENTS

This section details additional requirements crucial to consider the product as complete. These requirements touch upon various aspects of the system beyond its core functionality, ensuring a comprehensive and user-friendly. Furthermore, it takes into account the need for the source code to be portable across multiple platforms, including Windows, Linux, Unix, and Mac OS. These elements combined ensure a robust, adaptable, and versatile product.

8.1 CROSS-PLATFORM COMPATIBILITY

8.1.1 DESCRIPTION

The system will be developed using a hybrid framework, ensuring its portability across different mobile operating systems and web browsers. The objective is to provide the same functionality and seamless user experience irrespective of the device, platform, or browser that the user chooses to utilize.

8.1.2 SOURCE

The requirement originates from the project stakeholder's need to reach a broad audience, encompassing users with diverse hardware and software configurations. This decision aligns with the current industry trend of platform-independent applications to maximize accessibility and user reach.

8.1.3 CONSTRAINTS

Cross-platform compatibility imposes certain constraints on design and development. It mandates the use of technologies that are compatible with multiple platforms. It also necessitates rigorous testing across various devices, operating systems, and browsers to ensure consistent performance and user experience. This may limit the use of features or capabilities specific to a single platform or OS.

8.1.4 STANDARDS

The code should follow the best practices recommended for the selected hybrid framework. The development will adhere to W3C standards for web applications and the respective standards for each targeted mobile OS. For a hybrid framework, it is recommended to follow the guidelines provided by the framework vendor to ensure maximum compatibility and performance.

8.1.5 PRIORITY

Given the project's aim to cater to a wide user base across different platforms, this requirement is of high priority. It is crucial in the current digital scenario where users expect seamless experience across devices and platforms.

9 FUTURE ITEMS

9.1 FULL-TIME AVAILABILITY

9.1.1 DESCRIPTION

The application should be stable and available for use 24/7, with few interruptions and downtime.

9.1.2 SOURCE

Reety

9.1.3 CONSTRAINTS

The first iteration of our app will likely need regular maintenance, leading to a lot of downtime.

9.1.4 STANDARDS

9.1.5 PRIORITY

Future

REFERENCES

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