

CMSC436 Project Proposal: DineIn

Project Team 1

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App Description

DineIn is a revolutionary online booking platform that simplifies the process of restaurant reservations, embarking customers to a new level of dining experience.

The app will allow users to reserve, view, and manage the information about their seats at the restaurant, offering a list of restaurants and an interface for booking or unbooking spots. The restaurant's admin users, on the other hand, will be able to view, manage, and post detailed information about their reservations and other information.

Minimal Goals

The app will contain the following features divided into tab pages:

Home Page:

- Account: Users can authenticate and sign in with **Google OAuth 2.0**
- Search: Users can easily discover nearby restaurants based on their preferences using **GPS**
- List of restaurants: Users can view restaurant information with **filtering options**
 - At each restaurant (restaurant screen), users will be able to view restaurant info. A button "reserve" will redirect the user to the "reserve a table screen"
- Reserve a table screen: Users can choose a date and time through a calendar; users also can select the table and the number of guests. Once confirmed, users will receive a unique reservation ticket, **UUID**.

Reservation Page:

- Users can view/manage their reservation history (upcoming and previous reservations tabs)
- Users can cancel the booking

Profile Page:

- Users can sign out
- Users can access their accounts such as restaurant preferences and locations

Database:

- Users and restaurant collections are stored in the database using **Cloud Firebase and Firebase SDK for Flutter**.
- For now, the database will save a mocked list of restaurants in order to focus on the main functionality, reservation system.

Stretch Goals

App features:

- A payment system and a payment screen
- Dark theme
- Verify the reservation (Barcode, OTP, etc.)

Extra Users features:

- Reviews/Rating restaurant
- Pre-order their food

Restaurant Admins features:

- View/Manage users' orders and bookings.
- Receive notification if the spot got canceled then update availability.
- Provide Parking Details.
- Provide/Post information about their own restaurant(i.e. menu, food and drink, services, culture, time open time closed, etc.), time schedule, side notes, location, provide real-time support (chatbot or phone number), any discounts/offers on holidays.

Database feature:

- Store admin users into the database with their restaurant information
- Real-time database integration to reflect real-time changes on the database.

Project Timeline

Milestone 1

- Setting up the database
- User login page
- List of restaurants

Milestone 2

- Restaurant information
- Search engine
- Reserve feature

Milestone 3

- Reservation page
- Profile page
- One stretch goal

Final Submission

Completed all minimal goals, at least 3 stretch goals, project submitted, and a demonstration of the app scheduled.