Foodo

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Foodo Project Description

High-Level Idea

- An app to make the restaurant planning experience streamlined and social

- Users create **Foodo** lists to track the restaurants they want to visit

- App gathers restaurant information

  - Location

  - Opening hours

  - Phone Number

  - Ratings

- Social Features

  - Real-time reviews

  - Sharing Foodo List

Target Audience

- Those who like going out to try new restaurants

- Those who already have a backlog of restaurants they want to visit
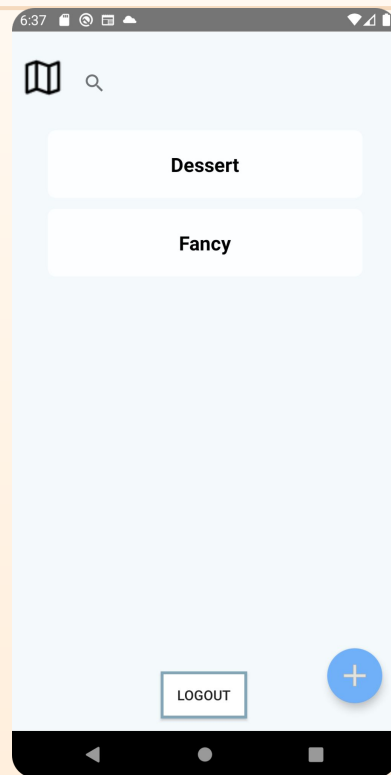
Main Actors and Use Cases

Main Actors

- Registered User
- Unregistered User

- Google Authentication Service
- Google Maps SDK

- Google Places API
- Firebase Cloud Messaging

Central Use Cases

1. Manage Reviews: Registered users are able to send and delete reviews on the information page of a restaurant.

2. Search for Restaurant Information: Any user is able to search for a nearby restaurant information by entering a query.

3. Manage Foodo Lists: Registered users are able to create/delete lists, add restaurants, and check/uncheck restaurants in the lists.

Non-Functional Requirements

1. App Boot-up Time
   - Initial Requirement:
     Take less than 3 seconds to load the Home page
   - Methodology:
     Periodically monitor Firebase performance page
   - Result:
     Average boot-up time is 1.88 seconds

2. API Response Time
   - Initial Requirement:
     Take less than 2 seconds to load restaurant information data
   - Methodology:
     Periodically monitor Firebase performance page
   - Result:
     API response time ranges from 4 ms to 224 ms

Complexity Idea: UI Features

- Swipe Gestures
  - Share or Delete Foodo List
  - Delete, Check, Uncheck Restaurants on Foodo List
  - Implementation
    - ItemTouchHelper.Callbacks attached to RecyclerView
    - Triggers HTTP requests to the server

- Animation
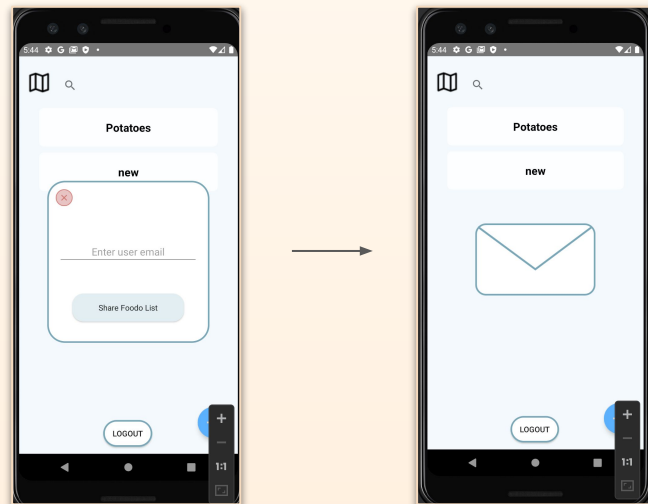
Contributions

Christopher Chang
- Implemented Foodo List and Foodo List restaurant front-end features and swipe gestures

Jerry Xu
- Implemented MongoDB models, most of the backend endpoints, and backend test cases

Ken Johnson
- Implemented real-time update feature, some back-end endpoints, and tests

Shirley Qi
- Implemented restaurant information features, deleting reviews, and Google Authentication

Most Important Lesson

1. Software Application Development Process
   a. Planning -> Design (use cases, module diagrams, sequence diagrams) -> Implementation -> Testing -> Deployment
   b. Periodically review and update design

2. Software Development Practices
   a. Teamwork
   b. Test Driven Development
   c. Github Actions
   d. Codacy

Thank You!