Team Project Proposal - FoodTok

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Introduction

This is a proposal for a full-stack restaurant reserving-ordering application inspired by modern social media and entertainment approach (TikTok and Dating Apps) that aims to provide an alternative approach to restaurant recommendation, table reservation, and order placing

Project Summary

Project Name	FoodTok
Short Description	Restaurant recommendation app where a restaurant/menu is recommended based on an understanding of user preference,orchestrated by an algorithm, and the user can swipe left or right to skip or select a place, and place their order at the same time
Team Enthusiasm Rank (1–10)	4.75/10
Team Confidence (1–10)	7/10
Product Owner	Matthew Boubin (mjb9353)

Project Details

Name

FoodTok

Description

FoodTok is an application where instead of providing a map or list of restaurant options, restaurants/dishes/menus are presented to the user in an orchestrated queue and location

guidance, table reservation and item ordering are all done at the same time. It is essentially a hybrid of TikTok (spontaneous recommendation instead of user browsing) and dating platforms (simple swipe left/right system and discovery queue)

Problem Statement

Existing restaurant websites all provide a list/map of options, require user input in toggling switches, filters, and has high decision-making overhead on the user end. We aim to introduce the approach of TikTok and Dating Apps to eventually eliminate the decision making process on the user end. We also aim to address the classic system design problem of idempotency problem as we aim to combine restaurant selection, table reservation, and ordering all in one pipeline. Lastly, we aim to gamify the process of experiencing and rating restaurants, thus generating massive data for continuous iterations of application design and user experience improvement.

User Personas and Major Features

- **Target Users:** Foodies, restaurant owners, Influencers.
- **Major Features:**
  - **Disovery Queue**
  - **Restaurant discovery - table reservation - ordering pipeline**
  - **Gamified user feedback gathering/social media features**

MVP (Minimum Viable Product)

- **Discovery Queue** - users can customize their discovery queue preference
- **Vendor Profiles** - restaurant owners can verify and upload restaurant information
- **Mock payment processing** - The users will go through a payment workflow for food ordering.
- **Holding Timer for Reservations** - There will be a holding cooldown associated with the user's registration as they go through the process of completing the payment for their reservation (idempotency problem)

MLP (Minimum Lovable Product)

- **Restaurant Feed** - a feed of foodie options that is highly intelligent (Situational Aware) in multi-dimensional decision making involving factors such as peak hour data, special menu, limited time discount, vicinity, decor/mood, occasion and user intent prediction (date, business, casual, grab-n-rub)
- **Minimal decision-making** - make as much of the decisions *for* the user instead of relying on the user to make an active choice for themself

- **Gamification/attention seeking** - Gamify the user experience as much as possible to maximize the attention span on the application/ maximize user satisfaction with limited attention span on the application

Nice-to-Have Features

- **AI driven recommendation algorithm** - Memorize and predict user behavior via big data approach and smart agents
- **Strong social media features** - User profiles, friends feature, find people of similar taste, discover new restaurants together, stranger-matchmaking table reservation (for restaurants of extremely high demand and table shortage)
- **Influencer platform** - Provide platform for connoisseur/star restaurant/star chef celebrities and viral content/meme content generation

CRUD Features

Admin

- **Create** - Restaurants and menus, personalized discovery queue
- **Read** - Use history, recommendation decision making process, algorithm success rate, restaurant performance, user profile
- **Update** - Adjusted personalized discovery queue, Suggestions for restaurants
- **Delete** - Restaruants, menus, user profiles

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Users (foodies)

- **Create** - restaurant/food reviews (pictures, upvote/downvote, videos)
- **Read** - Discovery queue, user reviews, own user history/profiling, user discovery
- **Update** - Personal preferences, diets
- **Delete** - Reviews, own history, friend network, own profile

Vendor (restaurants)

- **Create** - Vendor Profile, Menus, Deals, information (location, picture, ingredients/nutritional facts)
- **Read** - Vendor Profile, competitor profile, performance on the app, user review
- **Update** - Vendor Profile, Menus, Deals, information (location, picture, ingredients/nutritional facts)

- **Delete** - Vendor Profile, Menus, Deals, information (location, picture, ingredients/nutritional facts)

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Similar Already Existing Applications

Some existing applications use elements of the features described, but there is no single application that accomplishes what is proposed in this document. Some notable examples include the following:

- Zomato - Food ratings with some gamification
- SnackPass - Short form food related video content
- Tender - Restaurant Discovery