SAVORA

YOUR GO-TO RESTAURANT GUIDE!

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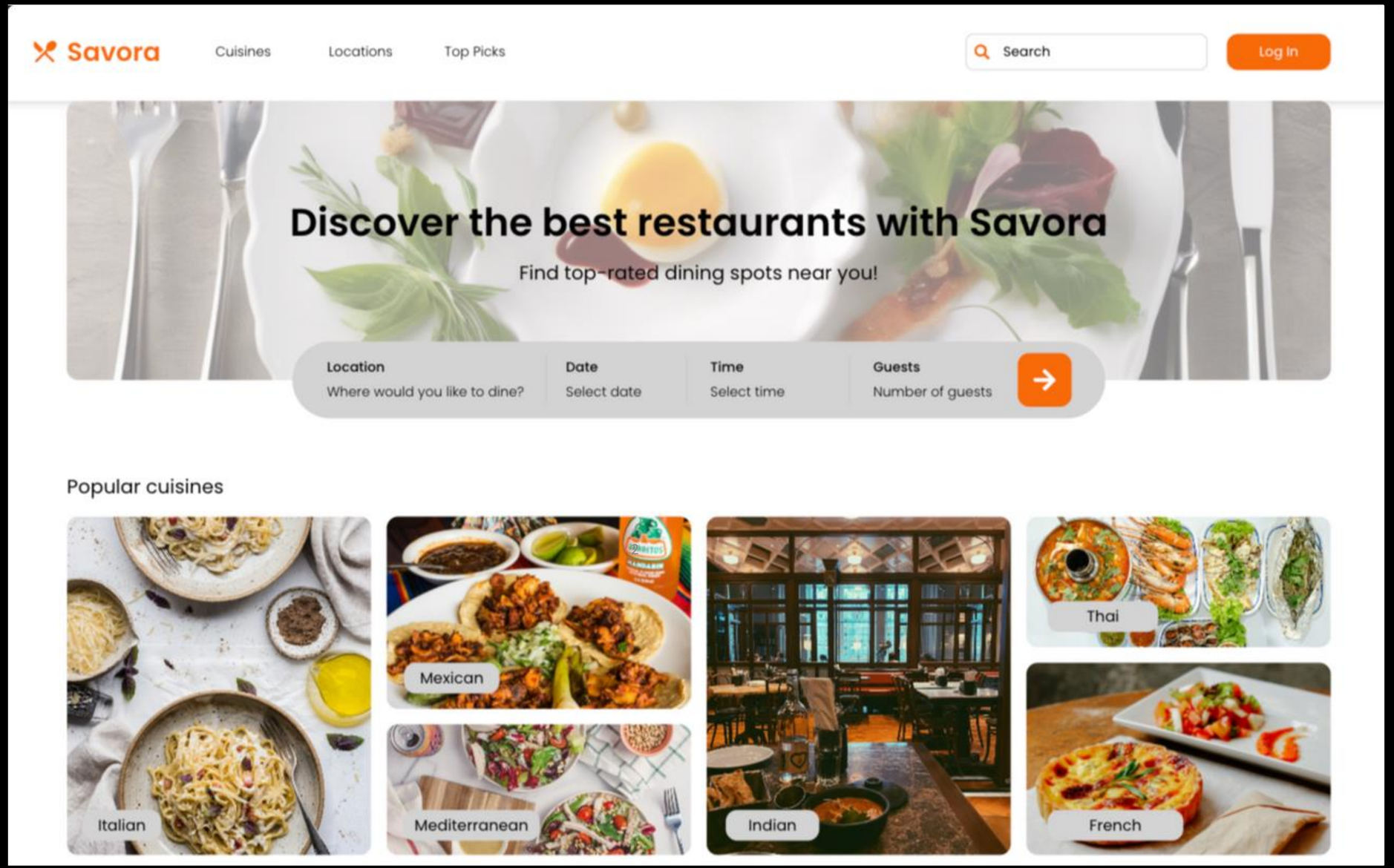
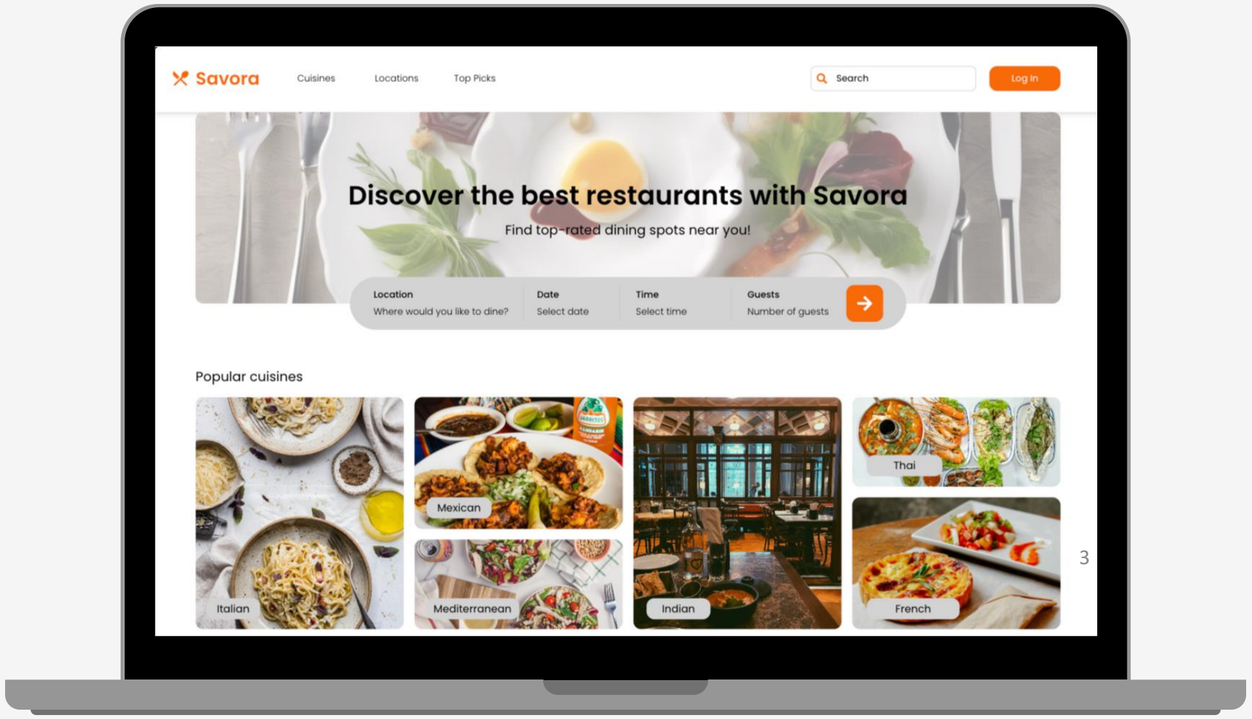
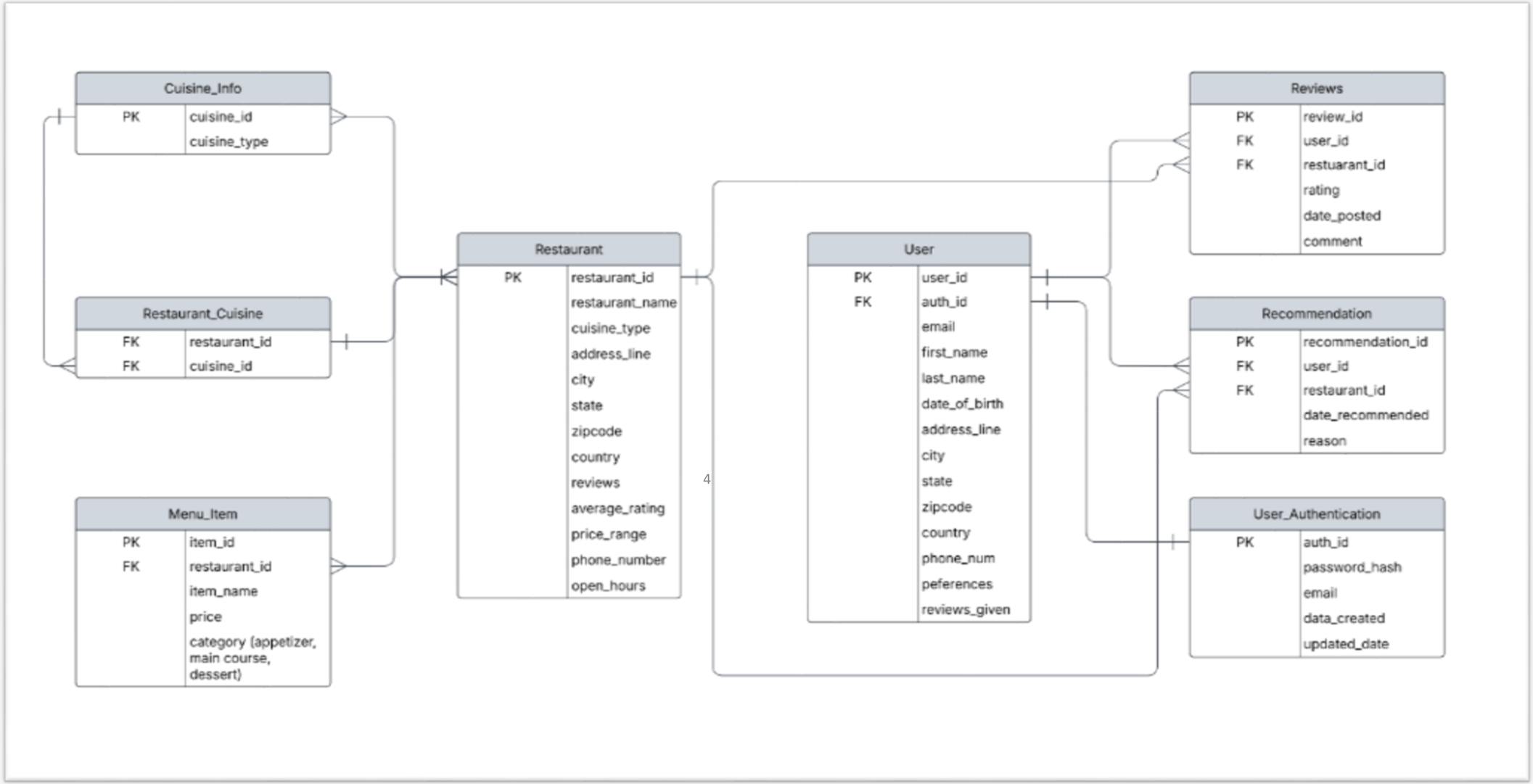

Savora
Cuisines
Locations
Top Picks
Search
Log In
Discover the best restaurants with Savora
Find top-rated dining spots near you!
Location
Where would you like to dine?
Date
Select date
Time
Select time
Guests
Number of guests
Popular cuisines
Italian
Mexican
Mediterranean
Indian
Thai
French

Contents:



Dataset


Cuisine_Info
PK cuisine_id
cuisine_type
Restaurant_Cuisine
FK restaurant_id
FK cuisine_id
Menu_Item
PK item_id
FK restaurant_id
item_name
price
category (appetizer, main course, dessert)
Restaurant
PK restaurant_id
restaurant_name
cuisine_type
address_line
city
state
zipcode
country
reviews
average_rating
price_range
phone_number
open_hours
User
PK user_id
FK auth_id
email
first_name
last_name
date_of_birth
address_line
city
state
zipcode
country
phone_num
peferences
reviews_given
Reviews
PK review_id
FK user_id
FK restuarant_id
rating
date_posted
comment
Recommendation
PK recommendation_id
FK user_id
FK restaurant_id
date_recommended
reason
User_Authentication
PK auth_id
password_hash
email
data_created
updated_date

Recommendation Model

1

2

Hybrid Model

One that learns from what similar users liked (**collaborative filtering**), and one that understands each person’s individual taste and needs (**content-based filtering**)

Why?

- Collaborative filtering is great when there's enough data but struggles with new users or restaurants.
- Content-based filtering solves this by using what we *know* about the user (diet, preferences, price)

Recommendation Model

3

We made Savora Personal

- We filter out restaurants that violate someone’s dietary needs (a vegan won’t see BBQ ribs).
- We prioritize cuisines and pricing that the user enjoys.
- Even if a restaurant is popular, it won’t be recommended unless it truly fits that user.

Recommendation Model

4

Personal

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Feature Engineering Process

From users: Cuisine, dietary restrictions, and favorite price range.

From restaurants: Cuisine categories, pricing, and reviews.

We created **custom scores**:

- How well a restaurant matches a user's food preferences.
- Filters out restaurants that break dietary rules.
- Highlights food and pricing users prefer

Recommendation Model

5

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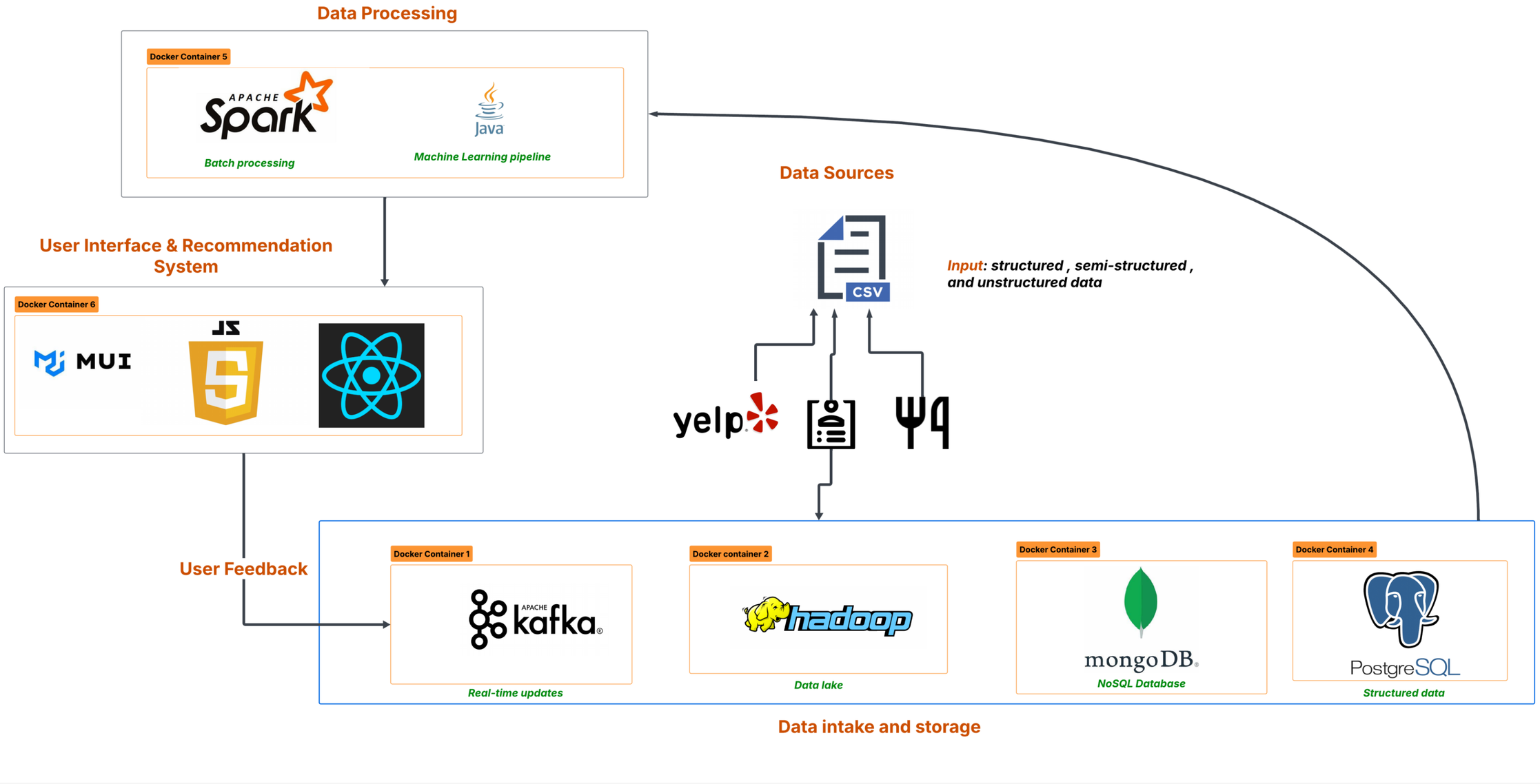
cores:

Model Evaluation

For CF, RMSE(Root Mean Squared Error) was used, but It only checks **numerical accuracy**, not whether the top recommendations are useful or relevant to the user.

Using Precision and Recall on recommendations

System Architecture



Live Demo

Operational Feasibility

Resource Requirements

- **Development team:** 2 full-stack developers, 1 ML specialist, 1 UI/UX designer
- **Cloud infrastructure:** Initially 3 application servers, 1 database cluster, CDN services
- **Data collection:** Partnerships with restaurant APIs and web scraping (with permissions)

Operational Challenges

- Maintaining up-to-date restaurant information (menus, hours, availability)
- Handling seasonal demand fluctuations
- Ensuring recommendation quality across diverse geographies

Maintenance Needs

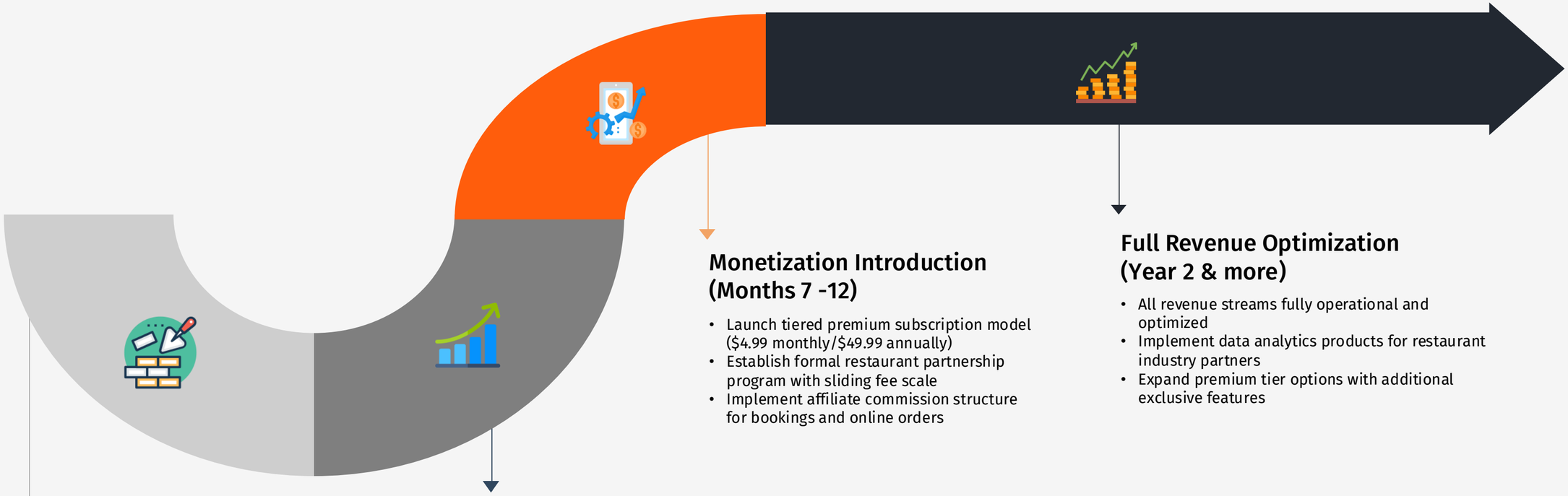
- Weekly model retraining with fresh user interaction data
- Monthly feature updates based on user feedback
- Quarterly security audits and penetration testing

Economic Feasibility

5.7%
First-Year ROI

35%
Second-year projected ROI

18 Months
Expected break-even post-launch



Foundation Building (Months 1-3)

- Focus on user acquisition through free core features.
- Build initial restaurant database and partnerships
- Implement basic analytics to track user engagement

Community Growth (Months 4-6)

- Introduce limited promotional features for restaurants
- Begin testing premium feature concepts with beta users
- Implement referral program with restaurant credit incentives

Monetization Introduction (Months 7 -12)

- Launch tiered premium subscription model ($4.99 monthly/$49.99 annually)
- Establish formal restaurant partnership program with sliding fee scale
- Implement affiliate commission structure for bookings and online orders

Full Revenue Optimization (Year 2 & more)

- All revenue streams fully operational and optimized
- Implement data analytics products for restaurant industry partners
- Expand premium tier options with additional exclusive features

Business Impact

For Diners

- Better dining experiences
- Time saving
- Dietary confidence

For Restaurants

- Targeted customer acquisition
- Reduced marketing waste
- Higher customer satisfaction

For Local Economy

- Support for niche establishment
- Increased dining activity
- Greater Diversity

Financial Outlook

- Initial focus
- Revenue potential
- Expansion path

Challenges

Restaurant Partnerships

Business Scaling

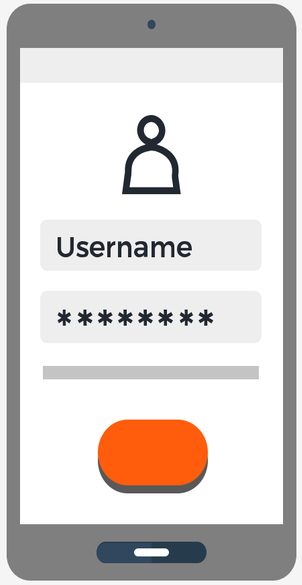
Data Cleanup

Competitor Analysis

Technical Hurdles

User Experience Challenges

Future Work

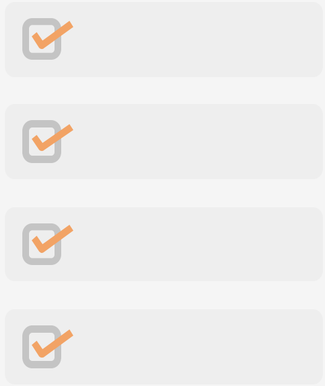


Geographic Expansion

- Rolling out to top 25 US cities
- Creating location-specific recommendation tuning

Audience Growth

- Creating social sharing features
- Launching targeted user acquisition campaigns



Model Refinement

- Enhancing recommendation accuracy
- Adding seasonal preference adaptation

Natural Language Processing

- Developing review sentiment analysis
- Creating preference from comments

Feature Expansion

- Adding reservation integration
- Creating personalized menu highlights

Thank You

ANY QUESTIONS, SUGGESTIONS, OR FEEDBACK?