Project Proposal

Build a restaurant order and delivery management system that includes features such as payment gateway, menu search, delivery status management, etc

Team Members

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Dataset

https://www.kaggle.com/datasets/ahmedshahriarsakib/uber-eats-usa-restaurants-menus

Features

- Payment gateway (AWS API gateway, AWS Lambda) 5
- Menu search (AWS DyanmoDB, AWS s3) 2 (database)
- Delivery status/ order update (AWS Simple Notification Service) 3
- User registration and login (AWS Cognito) 1
- User Profile for recommendations (AWS Personalize)
- Open search for broad food items (AWS Open Search) 4
- Add ratings to restaurants by users + adding photos of food (API Gateway + Lambda
- Restaurant Notification System(SNS + Lambda for order confirmations & status alerts)

Project Work Split Table

Feature / Task	Description	Primary Owner	Dependencies / Works With
User Registration & Login (AWS Cognito)	Set up Cognito User Pool, app client, JWT auth, protect APIs	Person 1	Person 2, Person 3, Person 4
Restaurant Notification System (SNS + Lambda)	Order confirmation & status alerts via SNS	Person 1	Person 3 (order workflow), Person 4 (UI), Person 2 (data)
API Contract & Integration Documentation	Define JSON format, endpoint list, and auth usage	Person 1	All Members
Dataset Cleaning & Ingestion	Clean Kaggle dataset, design schema, load to DynamoDB & S3	Person 2	Person 3 (orders), Person 4 (recs, ratings)
Menu Search (DynamoDB + S3)	Search by restaurant/category/menu item	Person 2	Person 4 (UI), Person 1 (auth)
OpenSearch Global Food Search	Broad keyword search; index menu data	Person 2	Person 4 (UI), Person 1 (auth)
Payment System (API Gateway + Lambda)	Mock payment processing; validate totals	Person 3	Person 1 (auth), Person 2 (menu data), Person 4 (UI)
Order Creation & Delivery Status	Orders table, create order, update status	Person 3	Person 1 (SNS), Person 2 (data), Person 4 (UI)
SNS Delivery Alerts	Notify users when order status changes	Person 3	Person 1 (SNS infra), Person 4 (UI)
User Profile + Recommendations (AWS Personalize)	Build Personalize datasets + campaign	Person 4	Person 2 (data), Person 1 (auth)
Ratings + Food Photos	DynamoDB ratings, S3 photo upload via pre-signed URLs	Person 4	Person 3 (order history), Person 1 (auth)

Frontend / UI Integration	Restaurant list, menu, cart, order status, recommendations	Person 4	All API owners
Architecture Diagram + README	Documentation, system overview, setup steps	All Members	All

Person 1 - disha
Person 4 - Harini
Person 3 - Tejo
Person 2 - Megha