

DAY 1

HACKATHON

FOOD DELIVERY WEBSITE FOUNDATION

Step 1:

PURPOSE:

Build a robust and scalable food delivery platform that connects hungry customers with nearby restaurants, offering a seamless ordering experience and reliable delivery service.

Step 2: DEFINE GOALS:-

(i) BUSINESS GOALS:

- i) Deliver an intuitive platform for customers to browse menus, order food, and track deliveries in real time.
- ii) Help restaurants grow their business through digital reach and operational efficiency.
- (iii) Generate revenue through service fees, delivery charges, and promotional packages for partner restaurants.

(ii) TARGET AUDIENCE:

(i)

Customers:

• Urban individuals, families, and working professionals who value convenience.

Tech-Savvy users who prefer online ordering over dining out.

(ii) Restaurants:

Small to medium-sized local restaurants, food trucks, and large restaurant chains.

(iii) PRODUCT AND SERVICES:

(i) PRODUCTS:

A wide variety of cuisines including fast food, healthy meals, desserts, and beverages.

Offers and meal combos to attract budget-conscious customers.

(ii) SERVICES:

For Customers:-

Easy navigation, real-time order tracking, ratings/reviews, and a loyalty program.

For Restaurants:-

Partner analytics, order management and advertising opportunities.

For Delivery Personals:-

Optimized delivery routes and income & incentive programs.

(iv)

WHAT SETS IT APART:

- **Personalization :-**
AI-powered recommendations based on customer preference and past orders.
- **Fast Delivery :-**
Streamlined logistics with real-time tracking and nearby delivery personnel.
- **Diverse Options :-**
Extensive menu choices from local favorites to premium restaurants.
- **Sustainability :-**
Eco-friendly packaging and Carbon-neutral delivery options.

Step 3: DATA SCHEMA.

(i) ENTITIES AND ATTRIBUTES.

- (i) **MENU ITEMS (Food items):**
Represents dishes offered by restaurants.

- **Attributes:**
Item ID, Name, Description, price, Category, Restaurant ID, preparation Time, Image URL.

(iii) **ORDER:-**
Represents the customers food order.

• **Attributes:-**

Order ID, Customer ID, Restaurant ID,
Total amount, Order Date, Status, Delivery ID,
Payment ID.

(iv) **CUSTOMER:-**
Represents users of the platform.

• **Attributes:-**

Customer ID, Name, Phone, Email, Address,
join date, loyalty points.

(v) **RESTAURANT:-**
Represents food establishments
listed on the platform.

• **Attributes:-**

Restaurant ID, Name, Location, cuisine
Type, Rating, Delivery Fee, Opening Hours.

(vi) **DELIVERY ZONE:-**
Represents predefined
zones for shipping.

Attributes:

Zone ID, Name, Delivery Fee, Estimated Delivery Time.

(vi) PAYMENT:

Represent payment details for transaction.

Attributes:

Payment ID, Order ID, Amount, Payment type, payments Status, Transaction Date.

(vii) DELIVER:

Represents delivery details of orders.

Attributes:

Delivery ID, Order ID, Delivery personnel ID, Delivery Status, Delivery time, Estimated Arrival.

(viii) DELIVERY PERSONNEL:

Represent individuals responsible for delivery orders.

Attributes:

Personnel ID, Name, Phone, Vehicle type, Current location, Availability.

RELATIONSHIPS:

(i) Customer \leftrightarrow Order:

- A customer can place multiple orders, but each order belongs to one customer (1:N).

(ii) Order \leftrightarrow Menu Items:

- An order can contain multiple menu items, and a menu item can appear in multiple orders (M:N).

(iii) Order \leftrightarrow Restaurant:

- Each order is tied to one restaurant, but a restaurant can fulfill multiple orders (1:N).

(iv) Order \leftrightarrow Delivery Zone:

- Each order belongs to a delivery zone to determine shipping logistics (1:1).

(v) Order \leftrightarrow Payment:

- Each order has one payment transaction (1:1).

(vi) Order \leftrightarrow Delivery:

- Each order is linked to one delivery transaction (1:1).

(vii) Delivery \leftrightarrow Delivery personnel:

- Each delivery is assigned to one delivery person, and each delivery person can handle multiple deliveries (1:N).

Step 4: HIGH-LEVEL FEATURES:

(i) FRONTEND:

- Responsive UI for customers, restaurants, and delivery personnel.
- Features like menu browsing, search filters, and order tracking.

(ii) BACKEND:

- Database to handle customers, orders, restaurants, payments, and deliveries.
- APIs for managing interactions (e.g., placing orders, updating statuses).

(70/11)

ADDITIONAL FUNCTIONALITIES:

- Real-time notifications for customers and delivery personnel.
- Feedback System for customers to rate orders and restaurants.