Hackathon 3
Day-3

1. Business Overview

Purpose

The purpose of this food website is to create an online platform where customers can:

- Browse a variety of food items, meals, or beverages.
- Place online orders for delivery or pickup.
- Track their orders in real-time.

Goals

- Provide a seamless food ordering experience.
- Ensure accurate and timely delivery of orders.
- Build customer loyalty through excellent service and user experience.

Target Audience

- Office workers, students, and busy professionals looking for convenient food options.
- Food enthusiasts who want high-quality meals delivered to their doorstep.

Unique Selling Points

- Real-time order tracking.
- Curated menu with locally sourced ingredients.
- Integration with top-notch logistics providers for fast delivery.
- User-friendly interface with personalized recommendations.

2. Features and Functionality

User Features

1. **Authentication**
    - Users can sign up, log in, and log out using Clerk.
    - Social login options (Google, Facebook, etc.).
2. **Food Menu**
    - View categorized food items (e.g., meals, beverages, desserts).

    - Search and filter options (e.g., by cuisine, price, or dietary preferences).
3. **Ordering System**
    - Add items to the cart.
    - Modify quantities before checkout.
    - Apply promo codes and discounts.
4. **Payment Gateway**
    - Integration with payment providers (Stripe).
5. **Order Tracking**
    - Real-time order tracking using ShipEngine.
    - Notifications for order status (e.g., order confirmed, out for delivery).
6. **Reviews and Ratings**
    - Users can rate their food and delivery experience.
    - Option to leave feedback for continuous improvement.

2.1 Admin Features

1. **Dashboard**
    - Manage menu items (add, update, delete).
    - View and manage user accounts.
    - Monitor order statuses.
2. **Order Management**
    - View incoming orders in real time.
    - Assign orders to delivery personnel.
3. **Analytics and Reporting**
    - Sales data visualization.
    - Customer feedback analysis.
    - Track popular menu items.

3. Technical Overview

Tech Stack

- **Frontend**: React with Next.js and Tailwind CSS for styling.
- **Backend**: Next.js API routes and Sanity for content management.
- **Database**: Sanity for storing product details and user data.
- **Authentication**: Clerk for user management and secure login.
- **Order Tracking**: ShipEngine for real-time delivery updates.

APIs

1. **Sanity CMS**
    - Manages food items, categories, and blog content.
    - Fetch data using GROQ queries.

2. **Clerk**
    - Handles user authentication, profile management, and session handling.
3. **ShipEngine**
    - Provides shipping rates, label creation, and order tracking.
4. **Stripe**
    - Facilitates secure online payments.

Database Structure

- **User**
    - ID, Name, Email, Password, Address, Order History.
- **Food Items**
    - ID, Name, Category, Price, Ingredients, Image URL.
- **Orders**
    - Order ID, User ID, Food Items, Total Amount, Status.
- **Delivery**
    - Order ID, Tracking Number, Status, Estimated Delivery Time.

---

4. Workflow

User Workflow

1. **Sign-Up/Login**: Users register or log in using Clerk.
2. **Browse Menu**: Explore food items from the categorized menu.
3. **Place Order**: Add items to the cart, confirm details, and make payment.
4. **Order Confirmation**: Receive confirmation via email or notification.
5. **Track Order**: Real-time updates via ShipEngine.
6. **Delivery**: Receive food and leave feedback.

Admin Workflow

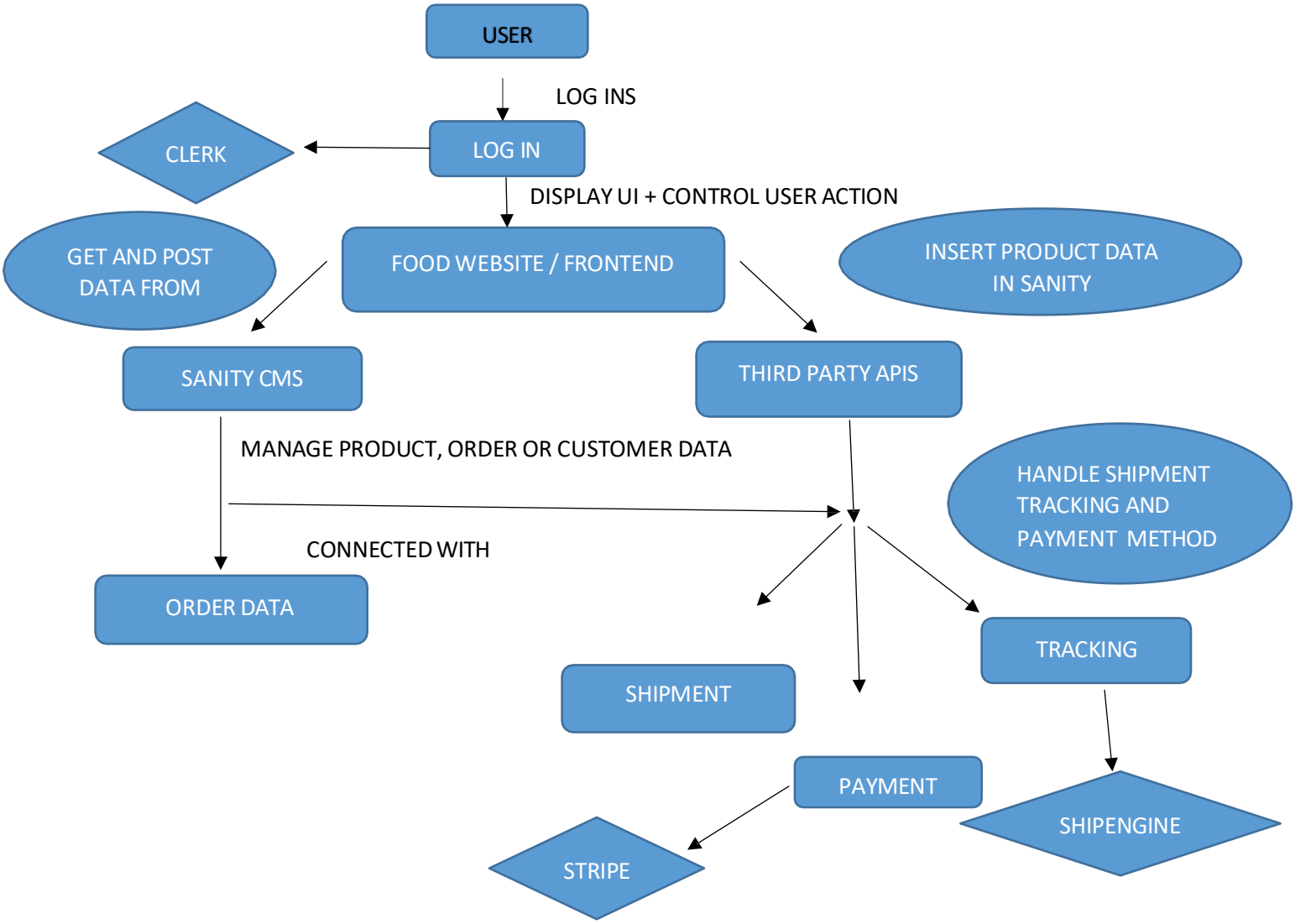
1. **Menu Management**: Add or update food items in Sanity.
2. **Order Processing**: Approve and assign delivery using the admin dashboard.
3. **Delivery Coordination**: Use ShipEngine to track and manage deliveries.
4. **Analytics Monitoring**: Review performance metrics and customer feedback.

WorkFlow Diagram

```
[Frontend (Next.js)]
      |
```

```
[Sanity CMS] <-------> [Product Data API]
       |
[Third-Party APIs] ---> [Shipment Tracking API]
       |
                    ---> [Payment Gateway]
```

Diagram



5. API Integration Steps

5.1 Sanity CMS

1. Create schemas for `Food Items`, `Categories`, and `Orders`.
2. Use GROQ queries to fetch data for the menu and blog

Schemas

Food Schema

anity > schemaTypes > TS foods.ts > default > fields > name

```ts
export default {
    name: 'food',
    type: 'document',
    title: 'Food',
    fields: [
      {
        name: 'name',
        type: 'string',
        title: 'Food Name',
      },
      {
        name: 'category',
        type: 'string',
        title: 'Category',
        description:
          'Category of the food item (e.g., Burger, Sandwich, Drink, etc.)',
      },
      {
        name: 'price',
        type: 'number',
        title: 'Current Price',
      },
      {
        name: 'originalPrice',
        type: 'number',
        title: 'Original Price',
        description: 'Price before discount (if any)',
      },
      {
        name: 'tags',
        type: 'array',
        title: 'Tags',
        of: [{ type: 'string' }],
        options: {
          layout: 'tags',
        },
        description: 'Tags for categorization (e.g., Best Seller, Popular, New)',
      },
```

```
      {
        name: 'image',
        type: 'image',
        title: 'Food Image',
        options: {
          hotspot: true,
        },
      },
      {
        name: 'description',
        type: 'text',
        title: 'Description',
        description: 'Short description of the food item',
      },
      {
        name: 'available',
        type: 'boolean',
        title: 'Available',
        description: 'Availability status of the food item',
      },
    ],
  };
```

Chef Schema

sanity > schemaTypes > chefs.ts > default > fields > name

```
export default {
    name: 'chef',
    type: 'document',
    title: 'Chef',
    fields: [
      {
        name: 'name',
        type: 'string',
        title: 'Chef Name',
      },
      {
        name: 'position',
        type: 'string',
        title: 'Position',
        description: 'Role or title of the chef (e.g., Head Chef, Sous Chef)',
      },
      {
        name: 'experience',
        type: 'number',
        title: 'Years of Experience',
        description: 'Number of years the chef has worked in the culinary field',
      },
      {
        name: 'specialty',
        type: 'string',
        title: 'Specialty',
        description: 'Specialization of the chef (e.g., Italian Cuisine, Pastry)',
      },
      {
        name: 'image',
        type: 'image',
        title: 'Chef Image',
        options: {
          hotspot: true,
        },
      },
```

```
      {
        name: 'description',
        type: 'text',
        title: 'Description',
        description: 'Short bio or introduction about the chef',
      },
      {
        name: 'available',
        type: 'boolean',
        title: 'Currently Active',
        description: 'Availability status of the chef',
      },
    ],
  };
```

GROQ Queries

Food

sanity > lib > querirs.ts > allfoods

```
import { defineQuery, groq } from "next-sanity";

export const allchefs = defineQuery(`
    *[_type == "chef"] {
    _id,
    name,
    position,
    experience,
    specialty,
    "imageUrl": image.asset->url
    } `)

```

Chef

```
export const allfoods = groq`
    *[_type == "food"] {
    _id,
    name,
    category,
    price,
    original price,
    tags,
    "imageUrl": image.asset->url
    } `
```

5.2 Clerk Authentication

1. Install Clerk SDK.
2. Set up authentication routes for sign-up, login, and logout.
3. Restrict access to certain pages using Clerk middleware.

5.3 ShipEngine

1. Create a ShipEngine account.
2. Use API keys to integrate real-time order tracking.
3. Fetch delivery status and display it on the user's dashboard.

5.4 Stripe Payment

1. Create a Stripe account.
2. Set up payment intents for secure transactions.
3. Confirm payment status before order confirmation.