

## Project Overview:

Detroit Epic Weekend (DEW) is a personalized platform driven by AI that helps users plan custom weekend experiences in Detroit. By gathering user preferences, the platform generates tailored itineraries that include options for dining, entertainment, lodging, and transportation.

## Key Features to Develop:

### User Preferences Input:

A straightforward interface for users to enter their preferences:

Purpose of visit (e.g., romantic getaway, group trip, solo adventure).

Duration of stay (e.g., 1 day, 2 days, 3 days).

Interests (e.g., music, sports, food, nightlife).

Budget (e.g., \$500 limit).

Dining preferences (e.g., fine dining, casual spots, vegetarian options).

Activity preferences (e.g., sports events, live concerts, sightseeing).

### AI-Driven Recommendation Engine:

Build an AI engine that processes user input and delivers custom itineraries. Recommendations should include:

Restaurants that align with the user's dining preferences.

Entertainment such as concerts, sports events, and nightlife.

Local attractions and activities.

Lodging options tailored to budget and preferences.

Integrate with external services like OpenAI for AI recommendations and third-party platforms (e.g., Eventbrite, Yelp, Google Places).

### Real-Time Adjustments:

Allow users to modify their itineraries on the go (e.g., change dining plans, add events).

Implement an alert system to notify users of real-time updates (e.g., event cancellations or booking changes).

### Payment Integration:

Incorporate payment gateways like Stripe, Pay Pal, or Square for booking tickets, reservations, or accessing premium features.

### Partner Listings:

Enable local businesses (restaurants, entertainment venues) to register as partners and offer exclusive promotions via the platform.

Provide a backend system for partners to manage their listings, availability, and promotions.

#### **User Accounts & Membership:**

Implement user registration and membership tiers (e.g., free and premium).

Premium users could enjoy perks like exclusive event access or discounts.

Ensure users can manage their accounts, update profiles, payment methods, and save preferences.

#### **Mobile-Responsive Design:**

Make sure the platform is fully responsive across devices, offering a smooth experience on both desktop and mobile.

#### **Admin and Analytics Backend:**

Develop an admin panel to monitor user data, website traffic, and conversions.

Create an analytics dashboard to gain insights into popular user preferences, bookings, and partner performance.

#### **Blog & Content Management System (CMS):**

Add a blog section where DEW can publish articles on Detroit experiences, tips, and news.

Provide an easy-to-use CMS for managing blog posts, experiences, and partner promotions.

#### **Social Sharing & Referrals:**

Integrate social sharing features so users can share their itineraries on platforms like Instagram, Facebook, and TikTok.

Create a referral system allowing users to invite friends and earn credits or discounts for future bookings.

#### **Customer Support Integration:**

Include a simple FAQ section and integrate customer support tools like live chat or email support.

Option to connect to a help desk platform such as Zendesk.

#### **Suggested Tech Stack:**

Frontend: React.js for a dynamic and responsive user interface.

Backend: Node.js or Python with Express for handling APIs and real-time features.

AI Integration: OpenAI or custom machine learning models for recommendations.

Database: PostgreSQL or MongoDB for managing user data and partner listings.

Payment Processing: Stripe, PayPal, or Square for seamless payments.

Third-Party APIs: Eventbrite, Google Places, Yelp, and OpenAI for enhanced functionality.

#### Scalability & Future Growth:

Ensure the platform is built to scale easily and can expand to other cities with minimal adjustments.

Make the infrastructure adaptable to include more categories of experiences (e.g., wellness retreats, fitness activities) as the platform grows.

#### Additional Developer Notes:

Prioritize ease of use and user experience, making the platform intuitive with minimal steps needed to create an itinerary.

Ensure the platform is secure and compliant with GDPR regulations, particularly regarding user data and payment security.