**Eat-O-Matic**

1. Core Features

Pages & Navigation

1. Home Page
   * Header:
     + Restaurant name + tagline (e.g., "Eat-O-Matic – Delicious Food, Delivered Fast").
     + Hero image/carousel.
   * Body:
     + AI-recommended "Popular Foods" (for new users) / personalized picks (returning users).
     + Floating "Ask AI" button (e.g., "Recommend vegetarian meals").
   * Footer:
     + Restaurant icon + name.
     + Links to About, Contact, Privacy Policy, Social Media.
2. Menu Page
   * Header:
     + Restaurant icon + name in navbar.
     + Search bar with AI helper (natural language queries).
   * Body:
     + Food/drink grid with filters (cuisine, veg/non-veg, price).
     + Each Food Card: Image, name, price, rating, "Add to Cart" (+ button).
   * Footer:
     + Consistent branding.
3. Cart Page
   * Header:
     + Restaurant icon + name in navbar.
   * Body:
     + List items with quantity control (➕/➖).
     + Total price (auto-updates).
     + Buttons: Cancel (clear cart) or Place Order (redirect to checkout).
   * Footer:
     + Consistent branding.
4. Checkout Page
   * Header:
     + Restaurant icon + name in navbar.
   * Body:
     + Order summary (items, total).
     + Payment gateway integration (e.g., Stripe/PayPal).
     + Address/notes input.
   * Footer:
     + Consistent branding.
5. User Profile
   * Header:
     + Restaurant icon + name in navbar.
   * Body:
     + Order history (status: *pending/delivered*).
     + Saved addresses, dietary preferences (used by AI).
     + Reviews/ratings given.
   * Footer:
     + Consistent branding.
6. About Page
   * Header:
     + Restaurant icon + name in navbar.
   * Body:
     + Company story, delivery zones, contact form.
   * Footer:
     + Consistent branding.
7. Login/Signup Page
   * Header:
     + Restaurant icon + name in navbar.
   * Body:
     + Login/Signup form.
     + "Forgot Password" link.
   * Footer:
     + Consistent branding.

2. AI Integration

* Homepage:
  + New users: Show top-rated/most-ordered foods.
  + Returning users: Suggest based on order history.
  + "Ask AI" button for custom queries (e.g., "Best comfort food under $15").
* Search Bar:
  + NLP for queries like "spicy Mexican dishes" or "low-sugar drinks".
* Cart Suggestions:
  + AI recommends add-ons (e.g., "Add garlic bread with pasta?").

3. Database Design

Entities

1. Users
   * id, name, email, password\_hash, address, dietary\_preferences.
2. Foods
   * id, name, type (food/drink), cuisine, price, image\_url, description.
3. Orders
   * id, user\_id, total\_price, status, timestamp.
4. OrderItems
   * id, order\_id, food\_id, quantity.
5. Reviews
   * id, user\_id, food\_id, rating, comment.
6. Carts
   * id, user\_id, created\_at.
7. CartItems
   * id, cart\_id, food\_id, quantity.
8. AI\_Interactions
   * id, user\_id, query, response, timestamp.

Relationships

* User 1:N → Orders, Reviews, Carts.
* Cart 1:N → CartItems.
* Food 1:N → CartItems, OrderItems, Reviews.

4. Backend Requirements

* APIs:
  + Auth: /login, /signup, /logout (JWT tokens).
  + Cart: /cart/add, /cart/update, /cart/clear.
  + Orders: /order/create, /order/history.
  + Search: /search?q=... (with AI filters).
  + Reviews: /review/add, /review/delete.
  + AI: /ai/recommend (integrate OpenAI API).
* Security:
  + Password encryption (bcrypt).
  + Rate-limiting on AI endpoints.
  + Role-based access (e.g., admins can add/update foods).

5. UI/UX Design

* Responsive Layout: Works on mobile/desktop.
* Color Scheme: Warm, food-friendly (e.g., orange, green, cream).
* Key Components:
  + Cart Icon: Dynamic badge showing item count.
  + Food Cards: Consistent grid with hover effects.
  + Checkout Flow: Minimal steps (cart → address → payment).

6. Optional Features (Future)

* Guest Checkout: Save cart without login.
* Wishlist: Save items for later.
* Live Order Tracking: Map integration for delivery status.
* Loyalty Program: Earn points per order.

7. Tech Stack Suggestions (when start to work )

* Frontend: #
* Backend: #
* Database: #
* AI: #
* Payment: #