**LOW LEVEL DESIGN**

**(ZOMATO)**

Low-Level Design, is a phase in the software development process where detailed system components and their interactions are specified. It involves converting the high-level design into a more detailed blueprint, addressing specific algorithms, data structures, and interfaces.

**ZOMATO App Components:**

**1. User Authentication and Profile Management**:

· Authentication Service: Handles user authentication (login,logout,registration) and generates authentication tokens.

· Profile Service: Manages user profiles, including personal information, addresses, payment methods, etc.

· Database: Stores user credentials, profile information, and session data.

**2.Restaurant Search and Browsing**:

· Restaurant Service: Stores and retrieves restaurant information (name, description, location, ratings, etc.).

· Search Service: Provides search functionality based on restaurant attributes and user queries.

· Category Service: Manages restaurant categories and subcategories (e.g., cuisine type, price range).

· Database: Stores restaurant details, category information, and search indices.

**3 Online Food Ordering and Checkout:**

· Cart Service: Manages food carts for users, including adding/removing items, updating quantities, and applying discounts.

· Checkout Service: Handles the checkout process, including order summary, shipping options, and payment processing.

· Inventory Service: Tracks available inventory and updates quantities when orders are placed.

· Database: Stores cart contents, order details, and inventory status.

**4 Order Tracking and Management:**

· Order Service: Manages food orders, including order placement, status tracking, and history.

· Notification Service: Sends notifications to users regarding order status updates.

· Delivery Service: Coordinates with delivery partners to manage delivery logistics.

· Database: Stores order details, delivery information, and notification preferences.

**5 Customer Support and Feedback**:

· Support Service: Handles customer inquiries, complaints, and support tickets.

· Feedback Service: Manages customer feedback, including ratings, reviews, and suggestions.

· Analytics Service: Analyzes feedback data to improve services and products.

· Database: Stores support tickets, feedback submissions, and analytics data.

**6 Technology Stack:**

Frontend : Technologies like Reactjs.

Backend: Microservices architecture using technology like Spring Boot.

Database: Relational databases (e.g., MySQL, PostgreSQL) for structured data and NoSQL databases (e.g., MongoDB, Redis) for high-volume, low-latency data.