**Solution Design Document for**

**Ola Cabs**

Name: Praneeth Reddy Maddula

Email: [p.maddula@dxc.com](mailto:p.maddula@dxc.com)

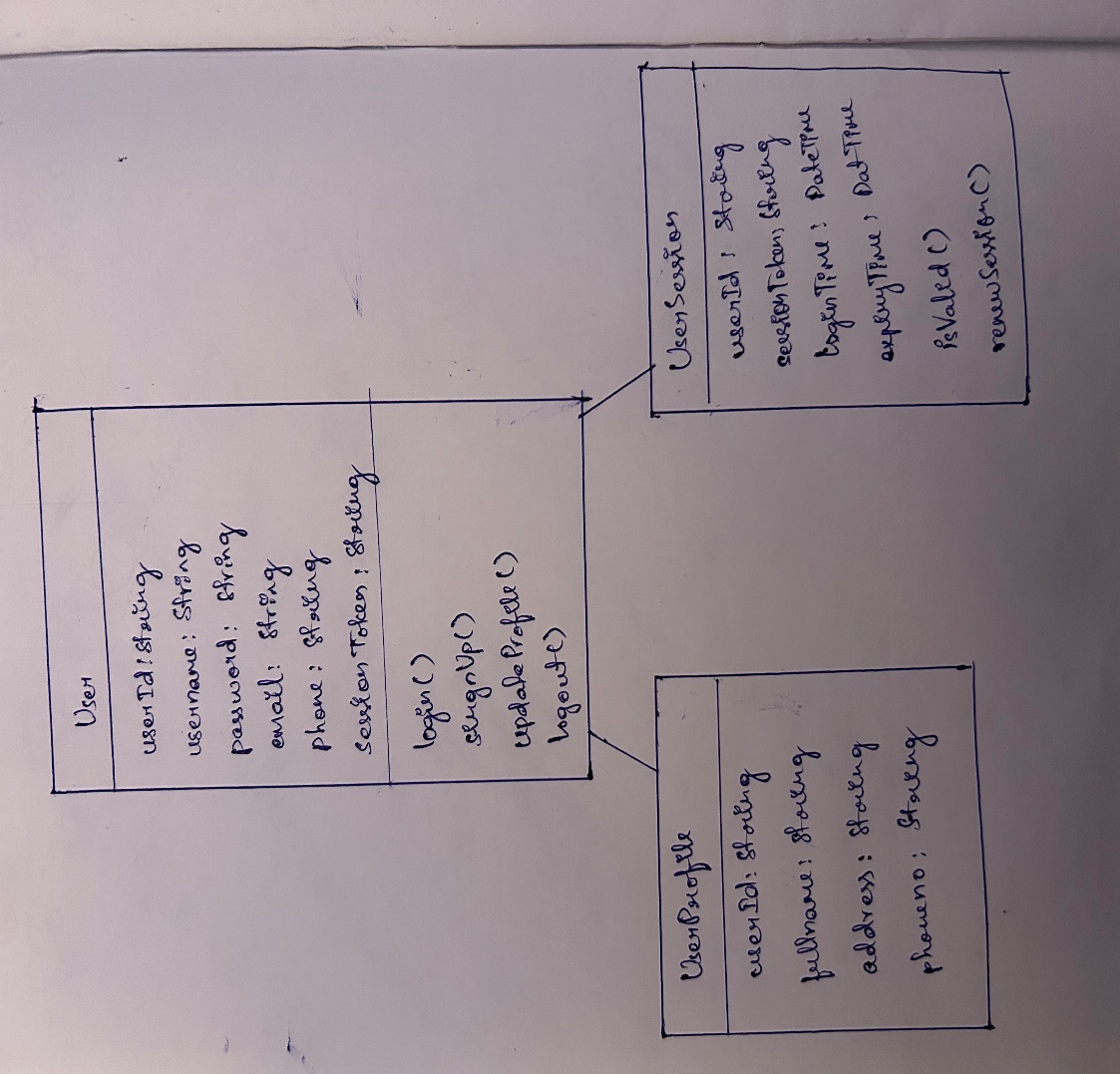
**Purpose:**

The purpose of the Ola cab booking app is to revolutionize the way people move around their communities, providing a seamless and sustainable transportation experience that enhances quality of life for users and drivers.

**High-Level Design (HLD):**

1. **User Management:**
   * **Components:**
     + Authentication Service
     + User Profile Service
     + Account Verification Service
   * **Interactions:**
     + Authentication Service handles user login, signup, and session management.
     + User Profile Service manages user profiles, preferences, and history.
     + Account Verification Service ensures user account validity through verification mechanisms like email or phone verification.
2. **Ride Booking:**
   * **Components:**
     + Ride Search & Selection Service
     + Fare Calculation Service
     + Ride Booking Service
   * **Interactions:**
     + Ride Search & Selection Service assists users in finding nearby cabs and selecting suitable rides.
     + Fare Calculation Service calculates fares based on distance, time, and surge pricing.
     + Ride Booking Service facilitates the booking process, confirming rides and notifying drivers.
3. **Driver Allocation:**
   * **Components:**
     + Driver Matching Service
     + Ride Service
   * **Interactions:**
     + Driver Matching Service matches drivers to ride requests based on proximity, availability, and user preferences.
     + Driver Tracking Service monitors driver location in real-time, providing users with accurate ETA (Estimated Time of Arrival).
4. **Payment Integration:**
   * **Components:**
     + Payment Gateway Integration
     + Billing & Invoicing Service
   * **Interactions:**
     + Payment Gateway Integration handles secure payment transactions using various payment methods like credit/debit cards, or UPI.
     + Billing & Invoicing Service generates invoices and manages billing-related processes.
5. **Rating & Review System:**
   * **Components:**
     + Rating & Review Service
     + Feedback Collection Service
   * **Interactions:**
     + Rating & Review Service allows users to rate rides and provide feedback on driver behavior and service quality.
     + Feedback Collection Service collects user feedback and incorporates it into driver ratings, ensuring continuous service improvement.

**Low-Level Design (LLD):**

****

