**Project Design Phase-II**

**Solution Requirements (Functional & Non-functional)**

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| Date | 14 APRIL 2025 |
| Team ID | SWTID1742640402 |
| Project Name | MyRide |
| Maximum Marks | 4 Marks |

**Solution Requirements:**

**Functional Requirements**

1. **User Authentication**
   * Passengers and drivers can sign up/login via email/phone with OTP or JWT verification.
2. **Ride Booking**
   * Input pickup/destination locations with fare estimates.
   * Schedule rides for future times.
3. **Real-Time Tracking**
   * Live driver GPS updates on an interactive map (Google Maps API).
   * Estimated arrival time (ETA) display.
4. **Payments**
   * Multiple options: UPI, cards, wallets, or cash.
   * Digital receipts sent post-ride.
5. **Safety Features**
   * SOS button to share live location with emergency contacts.
   * Ride details (driver info, vehicle) accessible mid-trip.
6. **Admin Controls**
   * Manage users/drivers, resolve disputes, and view analytics.

**Non-Functional Requirements**

* **Performance**: <3s page load time, real-time tracking updates every 10s.
* **Security**: End-to-end encryption (HTTPS), JWT for API auth, and rate-limiting.
* **Scalability**: Supports 10K+ concurrent users with load-balanced Node.js servers.
* **Offline Support**: Cache ride details for poor-network areas (PWA).
* **Compliance**: GDPR-compliant data storage and privacy controls.