ARCH-03 Cab Aggregator
Group: CS752-2023-20
Project Description Document
Date: 12 October 2023

# <u>All-En-Route – Cab Aggregator Service</u>

#### Purpose and Scope:

The Indian cab market, valued in thousands of crores (INR), is experiencing expansion, and organized cab aggregators are progressively strengthening their position in the market.

All-En-Route intends to provide a nationwide online cab aggregator service that is safe, secure, accessible at any time. It aims to generate revenue by facilitating mutually-beneficial optimal matches between registered passenger commute demands and registered cab service providers.

It will offer online **ride-booking services** for both intra and inter-city travel, employing **multiple drivers** for **long-distance rides**. Additionally, it will integrate with food delivery service partners to provide **on-the-go food ordering services** for passengers during their journeys.

### **Stake-holders and Responsibilities:**

Across the nation, cab providers and passengers willing to avail the services of this platform will need to get registered using the All-En-Route application.

**Passengers**, once registered successfully, will use the application to manage their profiles, book, update, track, or cancel rides (with valid reasons), order food for their journey, and make payments for completed rides.

**Cab-providers**, once approved and registered successfully, will use the application to manage their profiles, update cab and driver information, select from available ride requests, update ride start and completion statuses, and cancel selected rides (with valid reasons).

**Administrators** will use the application to verify, approve and notify cab providers and food delivery partners as well as manage the platform data and resources.

Support personnel will use the application to address customer requests and concerns.

## Service Availability and Accessibility Requirements:

All-En-Route will be accessible from anywhere in the country and available 24x7 for all above-mentioned key stake-holders of the service.

Service kiosk will be made available at heavy-footfall locations like airports, railway stations, shopping malls and markets.

#### **Service Platform Entities and Functional Requirements:**

The All-En-Route service platform primarily manages passenger profiles, passenger location data, cab and driver profiles, cab location data, ride details and relevant food order details (if applicable) along with payment status.

The service platform will **optimally match** the passenger **ride requests** (from current or pickup location) with **nearby** available **cabs**, following **applicable business rules** and **constraints**. The **long-distance rides** will follow a maximum at-a-stretch driving time restriction for drivers and apply the **multi-driver strategy** to enable attentive driving and ensure safe journeys.

The service platform will annotate ride routes with predetermined food delivery points along the way, considering distance and/or time factors. Passengers can then choose to order food from the menu of one of these designated delivery locations at their discretion.

Functionally, the service platform will maintain passenger profiles, cab provider profiles, offer mapping services, provide information about cab availability, pricing, and routes. It will also enable passengers to select their source and destination and optionally order food for their ride and enable cab providers to select from available ride requests. Additionally, the platform will track cab locations before and during the ride, track details and statuses of ongoing and scheduled rides, oversee payment statuses. Moreover, the platform will archive records of rides, food orders, and payment transactions for a specified period. The service will also incorporate regular updates and checks to ensure compliance with regulatory requirements such as vehicle standards, driver qualifications, fares regulations, safety measures, and data sharing.

Furthermore, the service platform will **integrate** with **verified food delivery partner services** to provide on-the-go food delivery service for passengers. Additionally, it will **integrate** with **various payment services** for managing ride payments and with **reliable third-party platform** for maps, routes and location services.

### **Service Platform Quality Attribute Requirements:**

For safety and user convenience, the service platform will provide cab location tracking before and during the ride, and users can choose to share their location. It will be accessible nationwide around the clock and the client-facing operations will be highly responsive with minimal latency. Additionally, to safeguard user privacy, any personally identifiable information (PII) must not be publicly accessible and all transaction data will be encrypted.

## **References:**

- [1] The Zachman Framework
- [2] India Radio/Online Taxi Services Market Competition Forecast and Opportunities, 2029