

# Title: User Cab Aggregator Application

## Domain: Transportation and ride-hailing

### Introduction

A Cab aggregator application enables passengers to book rides at their convenience while allowing drivers to offer safe and secure service from doorstep pickup to drop-off. It provides drivers with a platform to connect the passengers and manage their earnings. For platform administrators, it manages users' profiles sets fare policies, and maintains overall service quality.

This document outlines user stories from different perspectives of personas to align services and assist in developing a user-friendly application. These user stories will serve as blueprint features for designing features that meet users' needs while providing safe, efficient, and satisfactory rides.

### Scope of Work

This document outlines the user stories that involve the development of a comprehensive ride-hailing application for passengers and drivers that has the following functionalities. However, this scope outlines the essential features to enhance user experience, streamline ride management, and facilitate efficient communication between passengers and drivers

1. **Registration and Authentication:** Implementation of sign-up, login, and password recovery features
2. **Ride Booking:** Creation of functionalities for entering pickup/drop-off locations, fare estimation, and real-time driver assignment
3. **Driver Interaction:** Features for drivers to accept rides, navigate to passenger locations, and manage ride statuses
4. **Rating and Feedback System:** Mechanism for passengers to rate drivers and provide feedback after each ride
5. **Payment Tracking and Refund Requests:** Development of a payment history feature and options for requesting refunds for cancelled rides
6. **Customer Support Integration:** Options for users to access support via chat or call for issue resolution.

### User Personas

This application is developed for the following Personas

- **Passengers:** Users who are seeking convenient, safe, and affordable rides
- **Drivers:** Users offering ride services and safe interactions
- **Platform Administrator:** Responsible for the overall platform managing users' safety, and operations, resolving issues, and managing platform efficiency

## Contents

Introduction.....	1
Scope of Work.....	1
User Personas.....	1
User stories.....	3
Passenger.....	3
Registration .....	3
Login .....	3
Password Recovery .....	3
Booking.....	3
Driver Rating .....	4
Track Payments .....	4
Refund.....	4
Support.....	5
<b>Passenger Flow Diagram</b> .....	5
Cab drive.....	5
Driver Registration.....	5
Driver Login.....	5
View Drive Requests.....	6
Drive Assigned.....	6
Navigating Passenger's Pickup Location.....	6
Ride Cancellation.....	6
Passenger Drop Off.....	7
Rating by Passenger .....	7
Tracking earnings.....	7
Support .....	7
Admin/Platform .....	8
Passenger Management.....	8
Driver Management .....	8
Analytica and Reports.....	9
System Configuration .....	9
Conclusion .....	10
Version .....	10

# User stories

## Passenger

### Registration

As a new Passenger, I want to register, so that I can access and use the application

#### Acceptance criteria

- When the user has opened the app, the user selects the “Sign up” option, then they should be presented with the registration options either to manually input details, sign up with Google account directly
- When the user input the following details (name, phone number, email, location, password, etc), the system should validate the information
  - Phone number should be unique with 10 digits, else the user should be notified of “**incorrect input**”
  - Email should be a valid format
  - Password should meet the security requirements (including, letters, numbers, and special characters)
- When the user enters the submit button, the system should generate a verification code of 4 digits, sent to the given phone number or email
- When the user has successfully registered, they should be able to access the feature in the application
- System should generate confirmation SMS “**Registration successfully**”

### Login

As an existing Passenger, I want to log in, so that I should be able to access all the features present in the application

#### Acceptance criteria

- When the user has opened the app, the user selects the “login” option, then they should be presented with the option to manually input login details (email/phone number) and password, the system should validate with the registered information
- Provide the login details are correct user should be able to successfully log in and be redirected to the home screen of the application

### Password Recovery

As a Passenger, I want to reset my password, so that I can log in successfully

#### Acceptance criteria

- When the user selects the forgotten password on the login page then they should be presented with the option to manually input an email to receive a password reset link
- Given the link is clicked, the user should set a new password, and the system should validate that it meets the password security requirement
- When the user clicks “Reset password”, the system should send a notification indicating that the password has been reset successfully

### Booking

As a Passenger, I want to Book a ride, so that I can reach my destination without any delay

#### Acceptance criteria

- While opening an app, the passenger should see an option to enter their pickup and drop-off locations
- When the passengers enter their pickup and drop-off locations and click “Book ride”, the system should display the estimated fare and time to reach the destination
- While the passenger confirms the ride, the system should search for the nearest driver and assign the ride
- When the driver is assigned, the passenger should receive a notification with the driver’s details and vehicle number, and the updated ETA (estimated time of arrival)

- When a driver is en route to pick up location, the passenger should be able to track all the driver's location in real-time
- The passenger should receive an **OTP** to match with the assigned driver, to confirm the driver
- If the driver cancels the ride before arrival, the system should notify the passenger and send an inconvenience message via SMS, an option to book another ride
- If the passenger cancels the ride, the system should notify them of the cancellation fee and inform the driver of the cancellation
- Passengers should be able to change the destination during the ride in case they entered an incorrect location, and the system should update the fare accordingly.
- In case there are no vehicle drivers at the nearest, the system should notify the passenger at that time

## Driver Rating

As a Passenger, I want to rate the driver so that they receive feedback on their service

### Acceptance criteria

- When the ride is completed, the system should prompt the passenger to rate the driver, displaying a rating scale from 1 to 5 stars
- When the passenger rates the driver with a score below 3 stars, the system should display a text box for them to provide additional feedback on the driver's service
- When the Passenger submits the feedback, the system should confirm that the input has been successfully submitted
- If the passenger chooses not to rate immediately, the system should send a notification reminding them to rate the services and driver within a specified time
- When the driver receives a rating, the system should update the driver's overall rating accordingly
- In case the Passenger submits without a rating, the system should display an error message prompting them to "Choose rating"

## Track Payments

As a Passenger, I want to track my payments, so that I can keep records of ride expenses

### Acceptance criteria

- When the passenger navigates to the payment history section of the app, they should be able to see the list of all the rides with details (ride date, ride time, pickup and drop off location, driver, fare charge, payment method, payment status)
- While the passenger selects the specific ride from the payment history section, the app should display the breakdown of the payment including (cab fare, platform charges, GST, discount, etc)
- A filter option should be provided to make the payment history easier to navigate and allow passengers to view specific rides via date range, payment method, ride status
- In case the passenger payment history is not displayed, the system should generate an error message indicating a technical issue
- In case no rides have been taken, the system should display a message indicating that there are no payment records currently

## Refund

As a Passenger, I want to request for refund for my cancelled ride, so that I can get my money back

### Acceptance criteria

- When a passenger views their cancelled rides, then they should see an option to request a refund for each cancelled ride
- When the passenger selects the "Request Refund" option, then the system should display a confirmation asking if they are sure they want to proceed with the refund request.
- While the passenger confirms the refund request, the system should process the request and display a notification that confirms the refund request has been submitted successfully.
- When the refund request is submitted, the system should update the status of the ride to "Refund Requested" and provide an estimated timeframe for when the refund will be processed

- If the refund request is successful, the system should notify the passenger via email or in-app notification
- In case of any issues while processing the refund, the system should notify the passenger of the reason and assist accordingly
- In case the Passenger requests a refund for the not eligible ride, the system should display an error message
- In case there is a technical issue with the refund process, the system should notify the passenger and allow them to retry later

## Support

As a passenger, I want access to support options so that I can resolve any issues that occur during my rides

### Acceptance criteria

- Passenger should have an option in the profile to reach support, to resolve their issues (i.e ride cancellation, refund, profile management, etc)
- When the passenger accesses the support feature, the system should prompt them to choose either the 'Chat' or 'Call' option.
  - If the passenger selects the 'Chat' option, the system should initiate a chatbot that presents automated questions. When the passenger selects a question, the system should instantly provide a relevant response
  - If the passenger selects the “Call option”, the system should display the customer support phone number or initiate the call automatically
    - If the system initiates the call, then it should display the name and phone number of the customer support service being contacted
- When the call is connected, the system should display a timer showing the duration of the call
- If technical issues are preventing the call from being initiated, the system should display an error message and provide alternative contact options (e.g., chat or email)
- If the passenger’s phone lacks calling functionality (e.g., no network), the system should notify the passenger that the call cannot be initiated and offer alternative support methods
- When the support team resolves the passenger's issue, the system should prompt the passenger to rate the call and provide feedback on the support received

## Passenger Flow Diagram

## Cab drive

### Driver Registration

As a new driver, I want to register, so that I can offer rides through the application

### Acceptance criteria

- When the driver opens the app and selects "Sign up", the system should display the registration options
  - The system should allow the driver, either to manually enter details (name, phone number, email, driver's license, vehicle details, etc.) or via an existing account (Google, etc.)
  - The system should validate the driver’s details by following conditions
    - Phone Number should be unique, 10 digits
    - Email should be valid and unique
    - The system should validate license and vehicle documents
  - The system should send a verification link to the phone and email to validate the phone number and email
  - After successful registration, the system should notify by an SMS “Registration complete”

## Driver Login

As a driver, I want to log in, so that I can access and manage my rides

### Acceptance criteria

- When the driver selects the "Login" option, they should be prompted to enter their phone number/email and password
  - In case the driver forgets the password, the system should provide the option to reset the password
  - While clicking on “**Forget Password**”, the system should send a link to the email to reset the password
    - After clicking the link, the driver should manually create a secure password
    - Password must contain at least a letter, number, and a special character
    - The system should validate the password and provide a prompt message if it doesn't meet the security criteria
  - Once the driver enters a valid password, the system should redirect the driver to their dashboard
  - If login details are incorrect, the system should show an error message "Invalid credentials"

## View Drive Requests

As a driver, I want to view ride requests, so that I can accept and offer the service to the passenger

### Acceptance criteria

- The system should notify the driver a ride request is available
- The driver should have an option to either “Accept” or “Decline”
  - In case the driver accepts and confirms the ride, the driver should see the passenger's pickup and drop-off location, along with the estimated fare
  - In case the driver declines, the ride should become available to other nearby drivers

## Drive Assigned

As a driver, I want to be automatically assigned a ride to the nearest location, so that I can serve passengers efficiently

### Acceptance criteria

- The system should assign the request to the nearest available driver
- The driver should receive a notification with ride details (pickup location, drop-off location, passenger details, fare, estimated time)
- The system should notify the passenger and update both with the estimated arrival time (ETA)
- The system should display the driver's route to the passenger's pickup location

## Navigating Passenger's Pickup Location

As a driver, I want to use the app's navigation system, so that I can efficiently reach the passenger's pickup location

### Acceptance criteria

- The system should show the passenger pickup route within the application using the map
- The system should show the live traffic conditions, and suggest the easiest and least traffic route accordingly
- The driver should receive a notification while reaching the pickup location
- If the passenger does not arrive at the vehicle on time, the system should calculate the wait time and adjust the fare accordingly

## Ride Cancellation

As a driver, I want to cancel the ride, so that I can decline service if necessary

### Acceptance Criteria

- The system should provide drivers with an option to cancel the ride, prompting them to select a reason such as (“Vehicle issue”, Passenger not available”, “fare not satisfied”, Distance too far”)

- When the driver cancels the ride, the system should update the driver with the deducted cancellation fee, considering the cancellation policy

### Passenger Drop Off

As a Driver, I want to mark the ride as complete, so that the system can record the fare and transaction

#### Acceptance Criteria

- When the driver selects the "Mark Ride as Complete" option in the app, the system should prompt for confirmation to complete the ride
- The system should display the passenger's selected payment method.
- Upon confirmation, the system should
  - Record the fare for the ride in the driver's transaction history
  - Update the ride status to "Completed" in the system
  - Notify the passenger that the ride has been completed
  - The system should generate a summary of the ride details, including the total fare, distance travelled, duration of the ride
- In case there is a technical glitch in completing the ride, the system should display an error message and allow the driver to retry

### Rating by Passenger

As a Driver, I want to receive a rating from the passenger for my service, so that I can improve my service and maintain a good reputation

#### Acceptance Criteria

- After successful completion of the ride, the system should notify the passenger to rate the driver and the service
- If the passenger rates the driver, the system should update the driver's overall rating and notify the driver of the updated rating

### Tracking earnings

As a Driver, I want to track my earnings, so that I can keep a record of money I have earned from rides

#### Acceptance Criteria

- The driver should have dashboard access that shows a summary of (date, fare, tips, entire rides, earnings, performance rating)
- The driver should be able to filter earning history by date, payment status

### Support

As a driver, I want to access support, so that I can resolve the issues

#### Acceptance Criteria

- When the driver navigates to the support section, the system should display options for either “Chat” or “Call” features
  - If the driver selects the 'Chat' option, the system should initiate a chatbot that presents automated questions. When the driver selects a question, the system should instantly provide a relevant response
  - If the driver selects the “Call option”, the system should display the customer support phone number or initiate the call automatically
- The system should allow the driver to input specific queries and receive instant responses or escalate the issue to a live support agent if required
- The system should track and display the call duration and notify the driver if the call cannot be initiated due to technical issues
- After the driver’s issue is resolved, the system should prompt the driver to provide feedback and rate the support received

## Admin/Platform

### Passenger Management

As an admin, I want to manage passenger accounts, so that I can ensure compliance and address any issues effectively

#### Acceptance Criteria

- The admin can view a list of all registered passengers, including details such as name, email, phone number, and account status (active/inactive)
- The admin can search for specific passengers by name, email, or phone number
- The search results should display matching passenger records promptly
- The admin can change the status of a passenger account to active or inactive as needed
- Admin can delete a passenger account and confirm the action with a warning about permanent deletion
- In case of violation of policy, the admin should receive a notification for any account flagged
- The admin can view usage statistics for each passenger, including ride history, frequency of use, and payment status
- The system maintains an audit log of all actions taken on passenger accounts, including who made the changes and when
- The admin receives confirmation messages for any changes made to passenger accounts (e.g., account status changes, deletions)
- The admin has access to help or support resources directly from the passenger management interface for any technical issues or questions

### Driver Management

As an admin, I want to manage driver accounts, so that I can manage high service standards and operational integrity

#### Acceptance Criteria

- The admin can access a list of all registered drivers, displaying details such as name, contact information, vehicle type, license number, status (active/inactive), and rating
- The admin can search for specific drivers by name, license number, or contact details
- The admin can filter drivers based on criteria like account status, rating, location, or flagged accounts
- In case the driver violates the rules and regulations, the admin can deactivate or suspend a driver's account
- After consequences are received, the admin can permanently delete the driver's account
- The admin can review driver verification documents (**e.g., driver's license, vehicle registration, insurance**).
- The admin can approve or reject documents, with automated notifications sent to drivers regarding document status.
- The admin can also view driver ratings, reviews, and complaints from passengers and improvise the operations accordingly
- The admin can take action on low-rated drivers (e.g, review performance, temporarily suspend, or offer to retrain)
- The admin can take action against the flagged drivers (investigate, suspend, issue warnings)
- The admin can also have access to view customer feedback, ride history, cancellations and earnings
- The system maintains a detailed audit log of all changes made to driver accounts, including who made the changes and the time of action
- The admin can communicate with drivers directly via the platform to address issues or send performance-related feedback
- Admin receives confirmation once messages are sent, and a record is kept in the driver's account
- The system notifies Admin when a driver violates service standards (e.g., missing documentation, excessive complaints), prompting review and possible action support **Management**



## Analytica and Reports

As an admin, I want to generate reports and analyse the performance, so that I can make data-driven decisions to enhance operations

### Acceptance Criteria

- The admin can access a reporting dashboard through the platform, displaying key performance metrics and analytics
- The dashboard should provide a high-level summary of operations, including total rides, driver performance, passenger activity, and financial data, KPI's
- The admin can select from predefined reports or customize reports by choosing specific data points such as ride volume, driver ratings, cancellation rates, revenue, passenger feedback, etc
- Filters should be available to generate reports based on timeframes (e.g., daily, weekly, monthly) and specific variables like driver, region, or passenger
- The system should have a dashboard that provides visual representation including graphs and other performance metrics
  - Total rides (weekly, monthly)
  - Total drivers integrated into the application
  - Ride acceptance and cancellation rates
  - Average ride duration
- The admin should have access to export in formats such as PDF, Excel, PNG, and JPG for analysing and sharing with stakeholders
- The admin should receive alerts as the KPI drops or increases
- Notification should be sent accordingly for abnormal activity such as (an increase in refund requests, or frequent driver cancellations)
- The admin can view financial reports that can include total revenue, commissions, refunds, and driver payouts)
- Financial trends, including peak times, highest revenue-generating drivers, and ride types, should be visualized
- The admin can access historical data for up to a specified number of years, allowing them to track long-term trends in driver performance, passenger activity, and financial growth
- The system should provide AI-driven recommendations to the admin based on data analysis, suggesting actions such as optimizing driver shifts or adjusting fare structures to improve performance and service quality
- The system should allow to share the reports to the third-party tools – Email, Slack, Teams or integrate in the platform for analysis

## System Configuration

As an Admin, I want to configure system settings, so that I can adapt the platform to changing business needs

### Acceptance Criteria

#### Access management system

- The admin has a dedicated section in the platform to access and modify system settings. The system settings menu should be clearly organized into categories such as user management, payment settings, ride configurations, notifications, etc

#### User Management settings

- The admin can configure user access levels (e.g., drivers, passengers, support staff) to ensure appropriate permissions for each role
- Admin can add or revoke user roles and privileges, allowing for granular control over what each user type can access
- The system should provide options to enable or disable new user registrations

#### Payment Configuration

- The admin can configure payment gateway settings, selecting preferred payment providers and setting up or modifying payment methods (credit card, wallet, PayPal, etc.)
- The admin can set commission percentages, transaction fees, and payment settlement cycles for drivers
- The admin can configure refund policies and automatic fare calculations for ride cancellations and refunds

### **Ride and Fare Settings**

- The admin can adjust base fare, per-mile/km rates, and pricing rules to adapt to changes in market demand
- Admin should have the ability to configure ride cancellation fees, waiting time charges, and destination changes during an active ride

### **Notification and Communication Settings**

- The admin can configure the types of notifications passengers and drivers receive, such as booking confirmations, cancellations, and reminders
- The system allows the admin to modify notification delivery methods (SMS, email, app notification) and the frequency of alerts
- Admin can customize message templates for different scenarios, such as ride cancellation or feedback requests

### **System Behaviour Settings**

- The admin can set system-wide operational hours, limiting ride bookings and driver availability during certain periods (e.g., late nights, holidays)
- The system should allow the admin to configure regional settings like time zones, languages, and currencies, ensuring the platform operates correctly in multiple geographies

### **Security and Privacy Settings**

- The system allows the admin to manage API security settings, such as rate limits and access controls for third-party integrations

### **Reporting Configuration**

### **Driver and Vehicle Management Settings**

### **System Updates and Maintenance**

### **Audit Trail**

### **Sandbox Testing Environment**

- The admin has access to a sandbox or test environment to trial configuration changes before implementing them in the live system, reducing risk

## **Conclusion**

This document provides a clear understanding of the different user perspectives for cab aggregator applications. The stories serve as a base for designing and developing a user-friendly application to meet passengers, cab drivers, and platform needs and expectations.

## **Version**

**Version: 1.0.0**