**Application Architecture**

An Android and iOS customer mobile application with web based system for vehicle booking and administration.

**Front End:**

* Android application designed for mobile portrait view
* iOS application designed for mobile portrait view
* Web based backend will be developed using PHP
* Customer web application for vehicle booking will be developed using PHP

**Software Framework:**

Laravel

**Database:**

RDBMS Used is MySQL

**Hosting:**

Hosting would be cloud linux server.

**Responsiveness:**

Upto laptop.

**Browser Support:**

Latest versions of Chrome & Firefox

# Application User Levels

## User Levels:

There will be following user levels in the application.

* Customer (Android, iOS and web)
* Super Admin (Web)

**Customer:**

There would be following screens/features in the customer level mobile and web applications.

1. Customer registration
2. OTP Verification
3. Login
4. Forgot Password
5. Dashboard
6. Vehicle listing
7. Vehicle Detail
8. Vehicle Booking
9. Booking Reservation History
10. Booking Rental History
11. Notifications
12. Feedback
13. Traffic Violations
14. Update Profile
15. Gallery (web only)
16. Careers (web only)
17. Change Password
18. Logout
19. **Customer Registration**

There would be register option for the customers within the mobile app and web application. The customer can register to the system by filling out a basic registration. All customers are connected with the fleet system. Each time when a customer registers, the web application will check with fleet system to identify whether the customer is new or existing. If it is an existing customer a unique reference ID will be returned else a new entry will be made in fleet system. The mobile number provided will be further used for OTP verification.

1. **OTP Verification**

Newly registered customers mobile number will be verified against the OTP sent to their phone by using an SMS gateway. Resent OTP option will be also provided along in case if the OTP is not received or expired.

1. **Customer Login**

Each customer will have their own login screen and customers can login to their dashboard using the credentials. The system will use mobile number and password which was generated upon registration. The customer profile can be suspended by the super admin anytime if it violates any organizational rule.

1. **Forgot password**

Customers use their mobile number and password for login to the mobile application. If the customer forgets the password he can enter the mobile number linked with the account on forgot password screen. Thereafter when the verification is success, customer can reset the password with a new one.

1. **Dashboard**

The customer dashboard will have a search form for searching the vehicles. The customer should specify the location, pickup and return days along with time to get the desired vehicle list.

1. **Vehicle listing**

This screen will list all the vehicles based on search criteria’s. Rate/amount of each vehicle will be determined by calculating the number of days specified by the customer. Criteria’s for calculation will be as follows:

1. If the number of days ranges from 1-7, then the daily rate of the vehicle will be considered.
2. If the number of days is 7, the weekly rate of the vehicle will considered.
3. If the number of days is 14, the fortnight rate of the vehicle will be considered.
4. If the number of days is 30, the monthly rate of the vehicle will be considered.

Example: Number of Days = 8

Per Day Rate = Weekly rate / 7

Total Rate = Per Day Rate \* Number of days

1. The maximum grace hours will be 3. If the customer return time is beyond 3, the system will add one more day.

The vehicle listing page also includes filter by vehicle type and brand type.

1. **Vehicle detail**

The details regarding the vehicle selected from listing page will be shown in this screen. The details include the images, specifications, model information’s and rate details. In the web application, only the logged in customers will be allowed to view the vehicle detail page. If the customer is not signed in he will be redirected to the login page of the application.

1. **Booking**

Vehicle booking can be made by registered customers. The booking screen will show the vehicle selected for booking, its rates, personal information’s and payment details. After filling out all the mandatory fields the customer can proceed to book the vehicle.

1. **Reservation history**

All the booking reservations made by the customer will be listed in this screen. Cancellation can be done within 24 hours from the time of booking. Customer can view the reservation details of each vehicle along with the current booking status.

1. **Rental history**

The completed, expired and cancelled reservations will be listed in rental history screen. The same vehicle can be booked again from this screen. The customer will have to choose the required pickup and return date along with location. This will redirect to the vehicle detail page with specified criteria.

1. **Notifications**

The customer will receive notifications on the following events

1. Whenever a new booking is confirmed
2. Booking status change from the admin
3. Traffic violation which will redirect the user to the MOI Site.
4. **Feedbacks**

Customer can update feedbacks from this screen. The feedback can be of type complaint or suggestion. These feedbacks will be listed in the super admin.

1. **Traffic violation**

This screen will be linked to MOI Website

1. **Update profile**

The customer can manage their profile information within this screen.

1. **Gallery (Web only)**

Option to see photos grouped as albums in website.

1. **Careers (Web only)**

Option to fill form and upload resume. The details would be received in admin email address.

1. **Change password**
2. **Logout**

**Super Admin:**

There would be following screens/features in the super admin level.

1. Login
2. Dashboard
3. Master Screens
   1. Manage City
   2. Manage Location
   3. Manage Currency
   4. Manage specifications
   5. Manage models
   6. Manage rates
   7. Promotion/Offers
   8. Manage customers
4. User privilege
   1. Manage staffs
5. Transactions
   1. Bookings
   2. Traffic violations
   3. Manage customer feedbacks
6. Manage Ads
7. Manage coupon codes

**1.** **Login:**

Each user level will have their own login screen and users can login to their dashboard using the given login credentials (Username and Password).

**2.** **Manage City:**

The super admin will have the option to add/edit and delete the cities. These cities will be further listed for vehicle searching.

**3. Manage Location:**

Each location will be created under a city. The super admin can add/edit and delete the locations.

**4. Manage Specifications:**

The super admin will have the option to add/edit and delete the vehicle specifications. They can also make a specification hidden/active. The hidden specification won’t be listed in the vehicle list page.

**5. Manage Currency**

The default currency of the application is set to QAR. Adding new currency will only be provided if the payment gateway supports multicurrency.

**6. Manage Models**

All vehicle models will be collected from the fleet system to our application. The super admin can edit and view vehicle details. Also the images and specifications for each vehicle can be added from the listing. The vehicles can be made active/hidden based on the availability. Vehicle models which have images and rates will only be listed in the booking system.

**7. Manage Rates**

The rates for each vehicle model can be managed here. The rate types are classified as daily (1 Day), weekly (7 Days), fortnight (14 Days) and monthly (30 Days). Therefore each model will have four rates in common. The super admin can add /view and delete rates from the listing. Filter is also provided to filter the list by vehicle model.

**7. Promotion/Offers**

The super admin can add/edit/delete offer vehicles from this section. Each model will have a promotion/offer rate with a fixed time period. Filter will be provided based on date range and vehicle type.

1. **Customers**

The super admin can view all the registered customers. They will have the privilege to view and activate/deactivate each customer profile. Filter option is also provided to filter the customers list by customer reference ID, mobile number and name.

1. **Manage staffs**

The super admin can add/edit/delete sub admins or staffs who can access the admin portal with a different username and password. Thereafter login staffs will have the privilege to manage the vehicles and customer bookings.

1. **Bookings**

The vehicle bookings made by customers can be managed by the super admin. They will have the option to change booking status and view each booking. Filter is provided based on customer reference ID, customer name, booking status, vehicle model and date range.

1. **Feedbacks**

Super admin can view/delete the feedbacks made by customers. Each feedback can be of type complaint or suggestion. Filter option is also provided based on customer name, complaint type and date range.

1. **Manage footer**

All the contents for footer links, social media links can be updated by the super admin.

1. **Settings**

The super admin can update the profile, terms and conditions and contact information from this section.

1. **Manage ads**

Option to upload images that will be displayed in slider.

1. **Manage coupon codes**

Option to create and assign coupon codes. Coupon codes can be created by setting discount value, minimum order amount, expiry date. The coupon code can be send to customers manually and can be used by customer one time.

**Proposal Inclusions**

* Application development
* Upto 6 customized reports
* Design changes for app and web application based on client logo
* Layout would be decided by the developer
* Web application deployment to server
* Mobile application deployment to PlayStore/AppStore
* Minor cosmetic changes in app after deployment in free support period
* System would support English and Arabic language

**Proposal Exclusions**

* Purchase of any 3rd party services
* Integration of any other 3rd party services
* Layout changes in web application or app
* Hosting and domain charges
* SMS Gateway
* Playstore /AppStore account charges
* Content management
* Onsite Training