# Project Brief: UAE-Based Mobility & Car Wash Booking Ecosystem (Final)

## Overview

We are building an end-to-end mobility services platform for the UAE, covering four core components:  
  
1. Marketing Website (Webflow) – already completed  
2. Customer Mobile App – React Native (Expo)  
3. Worker Mobile App – React Native (Expo)  
4. Admin Dashboard – React.js  
  
All components communicate through a shared backend (Node.js ), a centralized database, push notification infrastructure (FCM/APNs), and cloud storage for media and ads.  
**Platform Structure**

### 1. Marketing Website (Webflow – Completed)

- SEO-friendly pages (Services, Pricing, FAQs)  
- CTA buttons for iOS/Android app downloads  
- Admin Login button → React Dashboard  
- Top banner ad area configurable via Admin Panel

### 2. Customer Mobile App (React Native + Expo)

- User Registration with **Language & Nationality selection**  
- Profile Management  
- Car Garage (Make, Model, Year, Plate)  
- Address Management via Google Maps Autocomplete  
- **Dynamic Category Tree → Main Category → Sub-category → Service**  
- Service Add-ons & Product Upsells (with images and pricing)  
- Booking with Date, Time, and Location  
- Display of Delivery Charges  
- **Apply Coupon Codes**  
- Booking Status Tracking & History  
- Ratings & Reviews  
- **Multilingual Support (English, Arabic, Hindi, Russian)**  
- **Targeted Ad Banners (Based on Nationality)**  
- Push & In-App Notifications via FCM

### 3. Worker Mobile App (React Native + Expo)

- Secure Login / Logout  
- Availability Toggle  
- **Auto-assignment of Jobs (Toggle On/Off in Admin)**  
- Job Inbox with Real-time Bookings  
- Mandatory 4 Photos Before and After Job  
- Job Flow: En Route → On Site → Completed  
- Navigation via Google Maps or Waze  
- Background GPS Tracking (every 30 seconds / 20 meters)  
- **Notes & Tyre Info Input (Tyre Field Hidden Until Enabled- for future)**  
- Push Notifications

### 4. Admin Dashboard (React.js)

- KPIs Dashboard: Bookings, Workers, Revenue, Ad Impressions  
- Booking Management: Create, Edit, Assign  
- Worker Management: Add/Edit, Toggle Availability  
- Live Worker Map with Ping Status  
- Dispatch Panel: Drag and Drop or Auto-Assign  
- Route Replay for GPS History  
- Category Manager – Add/Edit Main Category   
- Service Manager – Add/Edit Main Service  
- **Product Library – Add Products with Image, Price, and Assign to Services**  
- **Coupon Manager – Create Flat/Percent Discounts, Usage Limits**   
- **Ad Manager – Upload Banners, Target by Language/Nationality**  
- Pricing Settings: Base, Add-on, Delivery Fees  
- Reports (Bookings, Revenue, Memberships, Ads) – Export CSV/PDF  
- Feedback Viewer – Customer Ratings & Comments

## Authentication & Roles

- Firebase Auth or JWT  
- Roles: Customer, Worker, Admin, Superadmin  
- Role-Based API Protection

## Payments (UAE)

- Stripe (Global) – Apple Pay, Google Pay, Recurring Billing  
- Telr / PayTabs (Local UAE Payment Options)

## Notifications

- Firebase Cloud Messaging (FCM)  
- In-app Alerts, Booking Status Updates, Promotions  
- Targeted by User Role and Language

## Tech Stack Summary

|  |  |
| --- | --- |
| Component | Technology |
| Website | Webflow |
| Customer App | React Native + Expo |
| Worker App | React Native + Expo |
| Admin Dashboard | React.js + Tailwind/Chakra UI |
| Backend | Node.js (Express) or PHP |
| Database | PostgreSQL / Firebase |
| Maps | Mapbox or Google Maps API |
| Payments | Stripe / Telr / PayTabs |
| Notifications | Firebase Cloud Messaging (FCM) |
| Multilingual | react-i18next + JSON locale files / Expo Localization |
| Ads & Media | Firebase Storage |

## MVP Scope

- Customer App: Dynamic Category Booking, Add-ons, Products, Coupons, Ads, Multi-language  
- Worker App: Job Inbox, Mandatory Photos, Navigation, GPS Tracking, Auto-assignment  
- Admin Dashboard: Complete Management of Bookings, Staff, Products, Categories, Coupons, Ads,   
- Backend APIs, Payment Integrations, and Push Notifications

## Development Timeline (5 Weeks)

|  |  |
| --- | --- |
| Week | Tasks |
| Week 1 | Readying Designing App UI/UX |
| Week 2 | Backend setup, DB schema, Auth, Admin (login, dashboard) |
| Week 3 | Admin Modules: Category Manager, Product Library, Coupons, Ads |
| Week 4 | Customer App: Multilingual Setup, Booking Flow, Add-ons, Payment, Ads |
| Week 5 | Worker App: Job Assignment, Navigation, Photo Capture, GPS Tracking |
| Week 6 | QA, Testing, Notifications, Deployment to App Stores & Final Go-Live |

## Cost & Milestones (Finalized — $1,900 Total)

|  |  |  |
| --- | --- | --- |
| Milestone | Description | Cost (USD) |
| M1 | UI/UX Design (All Apps + New Modules) | $300 |
| M2 | Admin Dashboard Development (Categories, Products, Coupons, Ads) | $450 |
| M3 | Customer App (Multilingual, Booking, Coupons, Add-ons, Payments) | $600 |
| M4 | Worker App (Auto-Assign, Photos, Navigation, GPS, Earnings) | $550 |
| M5 | Integration, QA, Testing, Deployment |  |

Total: $1,900