

# AutoKorea – Technical Specification

## 1. Project Overview

AutoKorea is a car dealership management system for Korean car imports with real-time inventory tracking, staff management, and order processing.

## 2. Technology Stack

### Frontend

- Framework: React 18 with Vite
- UI Library: HeroUI (NextUI-based)
- Styling: Tailwind CSS
- Routing: React Router v6
- State Management: React Context + Custom Hooks
- Icons: Lucide React

### Database & Storage

- Database: Firebase Firestore (direct integration)
- File Storage: Firebase Storage
- Authentication: Firebase Auth (passport-based)

## 3. Core Features

### 3.1 Authentication

- Passport number login
- Role-based access (Admin/Staff)
- Protected routes
- Session persistence

### 3.2 Vehicle Management

- Multi-step vehicle creation (Basic Info → Pricing)
- Photo upload and management
- Status tracking (in\_korea, in\_transit, in\_bishkek, sold)
- Cost calculation (purchase, delivery, customs, repair, other)
- VIN-based identification

### 3.3 Staff Management

- Staff profiles with passport number (INN)
- Contact information
- Order history tracking
- CRUD operations

### 3.4 Order Management

- Multi-step order creation (Basic Info → Photos → Pricing)
- Vehicle assignment
- Staff assignment
- Photo attachments
- Cost breakdown

### 3.5 Financial Module (Admin)

- Cost tracking
- Profit calculations
- Revenue analytics

### 3.6 Calculator

- Custom pricing calculations
- Admin-configurable rules

## 4. Data Models

### **Vehicle / Order**

```
{
  brand, model, year, vin, mileage, color,
  engineVolume, fuel, transmission, drive,
  steering, condition, carfax,
  purchasePrice, deliveryCost, customsCost,
  repairCost, otherCost, sellingPrice,
  managerName, managerPassport,
  status, photos[]
}
```

### **Staff**

```
{
  name, passportNumber, password,
  phone, email, city,
  totalOrders, totalSpent,
  registeredDate, status
}
```

## 5. Key Technical Patterns

**Custom Hooks:** useStaff(), useCars(), useAuth(), useStaffOperations(), useCarOperations()

**Services:** staffService, carService

**Components:** MainLayout, Sidebar, TopNavbar, MobileMenu

**Pages:** Dashboard, CarsList, CarDetail, Staff, Orders, Finance, Settings

**Shared:** AddModal (multi-step forms)

## 6. File Upload

- Multi-file photo upload
- Preview generation with URL.createObjectURL
- Firebase Storage integration
- Base64 storage in Firestore
- Automatic cleanup

## 7. Form Features

- Phone auto-formatting (+996 XXX XXX XXX)
- INN validation (14 digits max)
- VIN validation
- Multi-step navigation
- Auto-calculation of total costs

## 8. Responsive Design

- Desktop sidebar (collapsible)
- Mobile drawer menu
- Adaptive layouts
- Touch-friendly controls