

**Project:** CarCare – AI-Powered Vehicle Maintenance System

**Team:** CarCare

**Date:** December 2025

## **1. Purpose of Data Collection**

CarCare collects specific data to provide:

- Accurate maintenance reminders
- Garage recommendations
- AI-based insights about vehicle health
- Cost tracking
- Better service experience for both users and mechanics

Only the data required to deliver these features is collected.

## **2. Types of Data Collected & Why**

### **2.1 User Information**

#### **Data Collected:**

- Name
- Email / Phone
- Password (encrypted)
- Location (with permission)

#### **Purpose:**

- To create and manage user accounts
- To personalize recommendations
- To locate nearby garages

### **2.2 Vehicle Information**

#### **Data Collected:**

- Vehicle brand, model, year
- Fuel type
- Current mileage
- Last service date
- Service history

#### **Purpose:**

- To generate accurate service reminders
- To enable AI predictions
- To store complete maintenance records

## **2.3 Maintenance & Service Data**

### **Data Collected:**

- Service type (oil change, tires, brakes, battery, etc.)
- Parts replaced
- Uploaded bills / service cost
- Garage details
- Date of service

### **Purpose:**

- To maintain long-term service history
- To estimate upcoming maintenance
- To provide cost patterns and monthly/yearly insights

## **2.4 Location Data**

### **Data Collected:**

- User's approximate location
- Garage locations
- Distance between user and service center

### **Purpose:**

- To show nearest garages
- To support emergency assistance
- To calculate distance & travel estimation

## **2.5 Mechanic / Garage Data**

### **Data Collected:**

- Mechanic name, experience, location
- Services offered
- Service charges
- Availability slots

### **Purpose:**

- To allow users to find appropriate mechanics
- To support job assignment and service matching
- To maintain quality of service

## **2.6 System Usage Data**

### **Data Collected:**

- Clicks
- Screens visited

- Session duration
- Login frequency

**Purpose:**

- To improve app design
- To identify popular features
- To detect usability issues

### **3. How The Data Is Used**

**To provide maintenance reminders**

Mileage + last service date = automated reminders

**To support AI recommendations**

Service history + mileage pattern = predictive maintenance

**To generate service cost insights**

Monthly & yearly spending reports

**To match mechanics with users**

Mechanic skills + customer request = best match

**To help users find nearby garages**

GPS and maps integration

### **4. Data Storage & Security**

**Secure Databases**

Stored in **Firestore (Firebase)** with encrypted connections.

**Authentication**

Powered by **Firebase Auth**.

**Encryption**

All communication uses **HTTPS / TLS**.

**Privacy**

- Passwords are never stored in plain text
- Location is collected only with permission
- Data is never sold to third parties

### **5. Data Sharing Policy**

CarCare does **not** share personal data with vendors or advertisers.

Mechanics only see data relevant to service requests:

- Vehicle details
- Customer contact
- Service requested

Users control what data they upload.

## **6. Ethical Considerations**

- Minimal data collection (only what's necessary)
- Transparency about usage
- User control over their data
- No sensitive personal data collected (address, Aadhaar, bank info, etc.)

## **7. Future Data Integration**

CarCare may later integrate:

- OBD (On-Board Diagnostics) live data
- Insurance renewal reminders
- Predictive service cost modeling
- Driving pattern analytics

All future features will follow privacy and security standards.