AutoCare Connect

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1. Topic Discussion

Project Title:
AutoCare Connect – Smart Car Workshop Management System

AutoCare Connect is a web-based platform developed to streamline automobile service operations. The system allows customers to interact digitally with the workshop, book services, track repair progress, request pickup & delivery, and maintain vehicle service records. For workshops, the system automates service workflow, reduces manual work, and ensures accurate tracking of jobs.

The project addresses issues like lack of time to visit workshops, unorganized job tracking, poor communication, and challenges faced by elderly or remote customers.

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2. Abstract Preparation and Submission of Project Synopsis

a. Problem Identification

Customers face:

- Inability to visit workshops for bookings
- Lack of real-time service updates
- No structured service history
- Confusion during pickup and return

Workshops face:

- Manual job management
- Miscommunication
- Difficulty tracking multiple service requests
- No digital record-keeping

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b. Proposed Solution

AutoCare Connect offers:

- Online service booking
- Pickup and delivery through dedicated drivers
- Real-time service status updates
- Admin-controlled workflow
- Digital job cards and invoices
- Driver dashboard for authorized staff
- Customer dashboard for monitoring repairs

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c. Expected Outcomes

- Improved transparency
- Digitized workflow
- Reduced manual errors
- Faster communication
- Easy access to service history
- Higher customer satisfaction
- Better workshop productivity

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3. Identifying Modules

1. User Module

- User registration & login
- Add/manage multiple vehicles
- Book service with pickup details
- Track service status
- View service history

- View invoices

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2. Driver Module

- Login using admin-created account
- View assigned pickup tasks
- View assigned delivery tasks
- Update task status (On the Way, Arrived, Picked Up, Delivered)
- Upload/check vehicle condition
- View task history
- Logout

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3. Pickup & Delivery Module

- Assign driver to pickup request
- Driver receives pickup details
- Admin tracks pickup completion
- Delivery scheduling and updates

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4. Service Workflow Module

- Assign mechanic
- Update service progress steps
- Add repair details
- Add parts replaced
- Generate invoice
- Mark job completed

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5. Admin Module

- Manage users & vehicles
- Create and manage driver accounts
- Assign pickups & jobs
- Track service progress
- Manage mechanics
- Generate reports
- View all transactions and service logs

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6. Notification Module

- On-screen dashboard updates
- Status updates: Pending → Picked Up → Repairing → Completed → Delivered

(Email/Google login can be added later.)

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4. Technologies Used

The application is developed using PHP for backend processing, MySQL for database management, and HTML, CSS, Bootstrap, and JavaScript to build a clean, responsive, and user-friendly interface.

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5. Detailed Project Report

5.1 Introduction

AutoCare Connect is an efficient digital platform designed to manage automobile service operations. Traditionally, workshops rely on manual bookings, physical visits, and verbal communication, which often lead to delays and errors. This system replaces manual processes with a digital workflow that simplifies service management for both the customer and the workshop.

5.2 Objectives

- Offer an online booking platform
- Provide pickup & delivery service
- Track service progress in real-time
- Maintain digital service records
- Improve workshop management
- Enhance customer convenience
- Ensure only authorized drivers can handle vehicles

5.3 Scope

The system is beneficial for:

- Automobile workshops
- Car service centers
- Customers managing multiple vehicles
- Elderly or physically challenged users
- Individuals living abroad

Can be expanded later with:

- Online payments
- Email/OTP notifications
- GPS integration
- Mobile app

5.4 System Requirements

Hardware

- Laptop / Desktop
- Minimum 4GB RAM
- XAMPP local server environment

Software

- PHP
- MySQL
- Apache (from XAMPP)
- Bootstrap
- JavaScript
- Any modern web browser

5.5 System Design

Key Database Tables

- users
- vehicles
- drivers
- service_bookings
- pickup_delivery
- mechanics
- service_updates
- invoices

Overall Workflow

1. User logs in → books service
2. Admin assigns driver
3. Driver picks up vehicle
4. Mechanic updates repair progress
5. Admin generates invoice
6. Driver delivers vehicle
7. User views service history

5.6 Advantages

- Time-saving for customers
- Reduced manual errors
- Clear communication
- Complete digital record-keeping
- Secure driver access controlled by admin
- Organized workflow for workshop

5.7 Limitations

- Requires internet connection