

# **VEHICLE SERVICING MANAGEMENT**

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## **SOFTWARE REQUIREMENTS SPECIFICATIONS**

# 1. Introduction

Vehicle Service Management is a windows application that aims to minimize the effort put in by companies to maintain their transactions and vehicle booking system. It manages all the transactions related to Customer profiling, Vehicle Service Bookings and Booking Details of the company.

In this software, anyone with a legal email ID can be added to the system as a customer. Customers can use the software only after they are registered to the system. One of the important perks of registration is that customers can opt for email reminders.

A Guest User can register as

- Customer

There are basically 5 modules in this software

- Login/Registration
- Profiles
- Vehicle Dashboard
- Booking Services
- Take an Appointment

Registration for new customers will be available on the login page and registration for employees better known as mechanics can be done by Admin only.

## Vehicle Service Management 2021-22:

### 1. Login/Registration:

There are Two Types of Login Pages:

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### a. Customer Login Page:

In this Login Page, the customer will enter an email and password which will be further authenticated and recognized as a customer and accordingly the customer dashboard will be opened to take in appointments.

### b. Admin Login Page:

In this Login Page, enter email and password which will further authenticate the user as Admin which further opens to functionalities like adding mechanics to the database and assigning them their respective vehicles for servicing. Only the admin can add or drop the users. Admin will also be provided with privileges to accept or decline appointments that come in from the user(customer). Finally, Admin will also be responsible for pricing.

## 2. Profiles

In the Profile module, the customer will file a few details like first name, last name, locality, etc which will further be used in the appointment module.

## 3. Vehicle Dashboard:

Here in-depth information about the vehicle like model year, license info, etc. will be taken by the customer as added to the database.

## 4. Booking Vehicles:

Once the vehicle Dashboard is filled the vehicles will be registered here.

## 5. Taking Appointment:

Once all the profiles and vehicle booking are completed, then customers can put in an appointment request with preloaded information and select which type of servicing will be suitable for their vehicles.

## 2. Purpose & Scope

Vehicle service is a software application that fulfills the requirement of typical management of details of servicing of vehicles, staff and pricing in a company along with appointment options. It provides the interface to users in a graphical way to manage their vehicle servicing appointments. It also provides email reminders with management details like Vehicle assignments, Vehicle Service information, Vehicle Repair and Maintenance and job details.

## 3. Users:

Anyone owning a vehicle that will need servicing from time to time, are the targeted users (or customers) who can easily make accounts with legal emails.

## 4. Overall Description

### A. System Features:

#### → Admin:

- View/Edit/Delete employee Details
- View/Edit/Delete User Details
- Add New Employee
- Accept/Decline appointment
- Booking History
- View and Add Vehicle Service History

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### → **User/Customer:**

- Login/Registration of user/customer.
- View and Update User Profile.
- View Vehicle Details.
- Book Vehicle for servicing.
- Take Appointments.

### B. Functional Requirements:

The major functionality of this product is divided into two categories:

1. Administrative User Functions.
2. User Functions.

In this application every user must have their User ID and Password, using these User ID and Password only they can directly enter into their corresponding Login forms.

#### **Administrative User Functions:**

In this functionality, the administrator will do his responsibilities. Whenever he needs to change his password, then he can directly change it. If for any reason, he needs to add a new user he can directly add.

The admin user can view the details of all the users and he can add or remove any particular users. He can view the details of all the employees of the company and any time he can add or remove any particular employee or employees.

This application is mainly about vehicle servicing. The admin user can view the details of services. The admin user can add and remove any particular services. He can view the details of all the vehicle servicing details that are presently in process in the company. In this list also, every vehicle given for servicing has its identification number. Moreover, the Admin is the one who accepts appointments and assigns the mechanics as well as decides the pricing of each service.

#### **User Functions:**

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In this function, Users can register to the software. They will have to fill in a few details in his profile and can register a vehicle if they wish. Then from time to time, appointments can be taken. Users will also be given an option to opt for email reminders.

### C. External Interface Requirements

#### **HARDWARE REQUIREMENTS**

The minimum requirements needed to perform operations are:

- Intel Pentium Processor at 2 GHz or Higher
- RAM 256MB or more
- Hard disk capacity 10GB or more

#### **SOFTWARE REQUIREMENTS**

The software required to perform the implementation are:

- Any Operating System
- NodeJs
- Visual Code Editor
- XAMPP

### D. Non-functional Requirements

Nonfunctional requirements are the properties that your product must-have. Think of these properties as the characteristics or qualities that make the product attractive, or usable, or fast, or reliable.

These properties are not required because they are fundamental activities of the product -- activities such as computations, manipulating data, and so on -- but are there because the client wants the fundamental activities to perform in a certain manner. They are not part of the fundamental reason for the product's existence but are needed to make the product perform in the desired manner.

## 5. Technology Used

### → Frontend:

- HTML5
- CSS3 ( And Bootstrap library)
- JAVASCRIPT (And its libraries)

### → Backend:

- EJS
- NODEJS

### → Database:

- MYSQL

### → Deployment:

- Heroku ( for backend)
- Netlify

## 6. Database Designing

### A. Entity Relationship Diagram (ERD)

## Vehicle Servicing Management

