AUTOMOBILE MANAGEMENT SYSTEM

ABSTRACT

In Today’s world with so many cars, models in the market, it is hard to find out which car has a high maintenance cost/index that is authentic source.Problem statement in Description o System that shows the health and Maintenance Index of various components of car models or car parts based on multiple factors.This will help new buyers to understand the maintenance costs of a certain model and probability of which car part requires more often servicing /change, OEM’s to understand which part is requiring frequent change and needs to be recalled and made better in the new models. Vehicle maintenance patterns across car models by mileage, usage , age of the vehicle , regional patterns across dealers, service stations and car manufacturer

Purpose and who will benefit o Consumers so they know which car has a higher maintenance and maintenance index. o Car Manufacturers , so they know which parts are getting serviced often based on the part change • How doesit help the nation o Better understanding for consumers on which car to purchase with low Vehicle Maintenance Index o Govt has better understanding of car maintenance index before approving cars on the Road (ARAI Authority)

Practical and reasons why this idea could be a challenge from Implementation o Data Challenge : Build a dealer/service station network , OEM, consumers who can feed data into the system –without data this solution will not work o Ability to integrate this solution easily with the current systems which can collate the data o Marketing challenge : Owner within the Govt to take this ahead and invest this product o Political : OEM’s might not want such a system to be developed.

Domain Bucket o Transport , Vehicles • Technology Bucket o Integration across systems –Integration platform across systems with security model for data extraction o Analytics & Data Science (if possible) -Bigdata/Hadoop, AI / ML o Data Aggregation o Visualization

# INTRODUCTION

More than two –third of automotive customers indicate that Service Convenience is a determining in selecting a brand or purchasing from a Specific dealership .Consequently, Customer Service and service management is of vital relevance to ensure ongoing Customer loyalty and retention and ultimately, dealer Profitability. Dealer Business Management enables efficient Service order Processing and billing designed for any given number of orders per day

.it includes Service requests and Scheduling ,Optimization of techicans,tools, and parts as well as their deployment and scheduling .User friendly interfaces provides ease of use and the integration technology ensure a seamless and smooth business process into OEM channel System, including ,job and Package Catalogs, Vehicle history files ,Warranty Systems, etc. Service monitoring and analysis increases the Visibility in Overall fixed Operations and helps increases service Capacity utilization, efficiency and decreased operating cost. Recreation Vehicle service technician inspect ,test, service, and replace every system installed in a recreation Vehicle with the exception of the dry. Both intervals are equally important for properly marinating your Vehicle Remember all Toyota dealerships offer a broad range of Parts and Service. The Driver and Vehicle Licensing Agency ,the Driving Standards Agency and the Vehicle and Operator Service Agency Provide Services for 42 million drivers. The Vehicle and Operator Services Agency(VOSA) Provides a range of licensing, testing and enforcement services with the aim of improving the roadworthiness standards of Vehicles ensuring the Compliance of operators and drivers , and Supporting the independent Traffic Commissioner

**SYSTEM ANALYSIS**

Existing system is a manual one in which users are maintaining books to store the information like product details, Distributors details, purchases, sales details and accounts for every month. It is very difficult to maintain historical data.The following are the disadvantages of the existing system. It is difficult to maintain important information in books. More manual hours need to generate required reports. It is tedious to manage historical data which needs much space to keep all the previous years’ ledgers, books etc. Daily sales and purchases details must be entered into books are very difficult to maintain.

### DISADVANTAGES

* + - Increased Repair Costs: When vehicles are not maintained regularly, small issues can become bigger problems that require expensive repairs. Over time, the cost of these repairs can add up, leading to increased expenses and reduced profits
    - Decreased Safety: Vehicles that are not properly maintained are more likely to experience mechanical failures or breakdowns while on the road. This can put the safety of drivers and passengers at risk, as well as the safety of other drivers on the road.
    - Reduced Vehicle Lifespan: Regular maintenance can help extend the lifespan of a vehicle. When vehicles are not maintained properly, they may require replacement sooner than expected, which can be a significant expense.

## Proposed System

The DISTRIBUTORS MANAGEMENT TOOL is a software application which avoids more manual hours that need to spend in record keeping and generating reports. This application keeps the data in a centralized way which is available to all the users simultaneously. It is very easy to manage historical data in database. No specific training is required for the distributors to use this application. They can easily use the tool that decreases

manual hours spending for normal things and hence increases the performance. It is very easy to record the information of online sales and purchases in the databases.

### ADVANTAGES

* + - Reduced Repair Costs: By addressing small issues before they become bigger problems, organizations can help reduce repair costs over time. This can help save money and increase profitability.
    - Extended Vehicle Lifespan: Regular maintenance can help extend the lifespan of vehicles, reducing the need for replacement and saving money in the long term.
    - Improved Resale Value: Vehicles that have been well-maintained and have a documented maintenance history often have a higher resale value than those that have not. This can help organizations recoup some of the costs of their fleet of vehicles when it comes time to sell them.
    - Increased Efficiency: Vehicles that are well-maintained are often more efficient, leading to lower fuel costs and increased productivity. This can help organizations save money and increase profits.

### **SYSTEM REUIRMENTS**

### HARDWARE REQUIREMENTS

* + - System : Pentium IV 2.4 GHz.
* Hard Disk : 40 GB.
* Floppy Drive : 1.44 Mb.
* Monitor : 15 VGA Colour.
* Mouse : Logitech.
* Ram : 1GB
  1. **SOFTWARE REQUIREMENTS:**
* Operating system : Windows 10.
* Coding Language : JAVA
* Data Base : My SQL

**SYSTEM ARCHITECTURE**

