

# **VEHICLE MANAGEMENT SYSTEMS**

**-AbssZy**

## **Table of Content**

1. Abstract
2. Introduction
3. Project Resource Requirements
  - 3.1. Software Requirements
  - 3.2. Hardware Requirements
4. Literature Survey
5. ER Diagram
6. ER to Relational Mapping
7. Tables and Constraints

## Abstract

Vehicle Management Systems enables people to accomplish a series of specific task in the management of any or all aspects relating to a fleet of vehicles operated by a company, government, or other organization. The main function of vehicle management system is to gather, store, process, monitor, report on and export information.

## Introduction

The vehicle management software is a system providing management function which allows companies to remove or lessen the dangers associated with vehicles owned by the companies. Our vehicle management software is not restricted to managing the individual vehicles, but includes drivers, tracking availability, working condition, pollution check, etc. When it comes to refining efficiency, productivity and reducing the overall costs involved with a company's vehicles fleet it is essential to have Vehicle Managements Software in place. This kind of system contributes and forms a firm basis of effective Vehicle Management Software. Being able to provide excellent records when it comes to checking, formulating plans, designing and implementing policies, procedures and systems is regarded as a quick and simple task when you are making use of a respectable Vehicle Management Software.

## Project Resource Requirements

### ➔ Software Requirements

- Programming Language: html, css, php, javascript
- Platforms: Visual Studios
- Server: localhost
- Database: mysql on myPHPAdmin

### ➔ Hardware Requirements

- 2.5GHz Processor
- 8GB RAM
- x64 bit OS

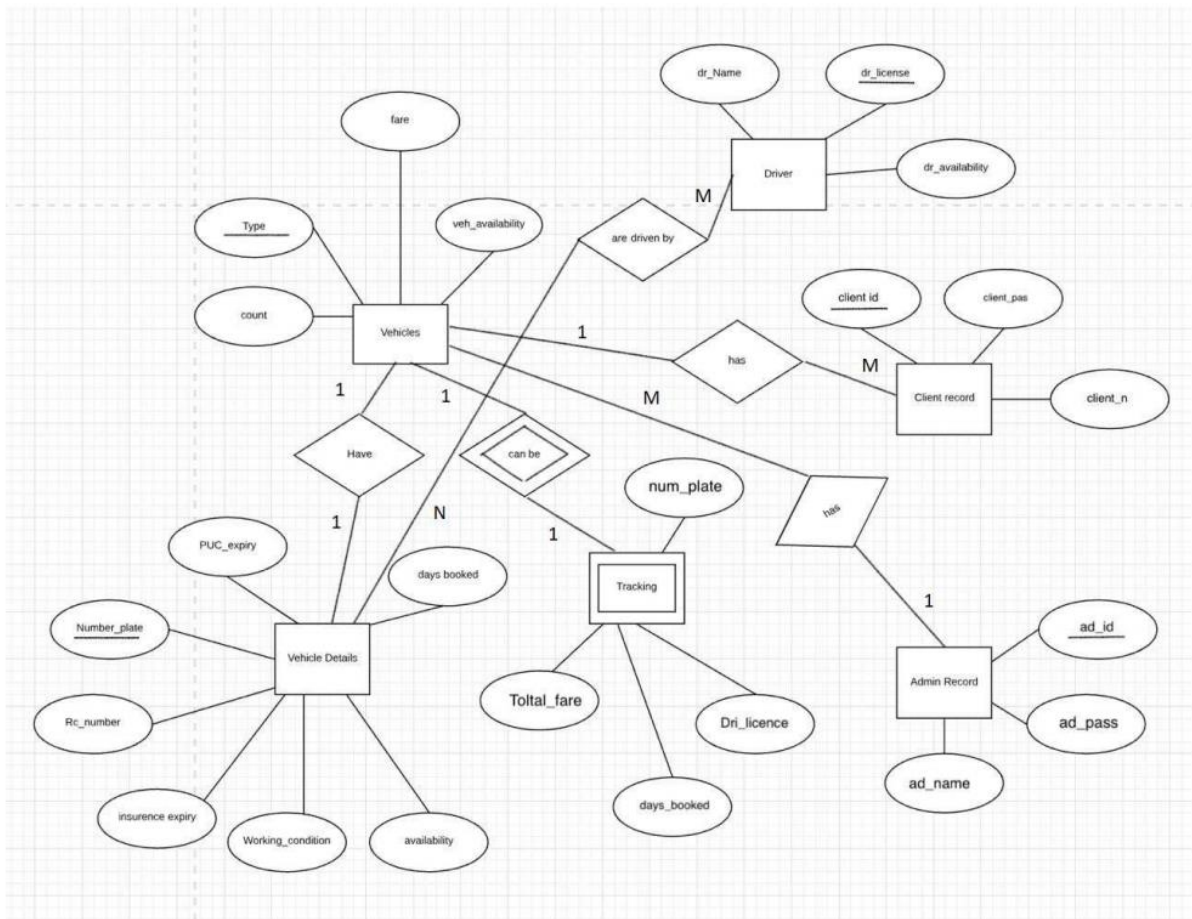
## Literature Survey

Authors	Method	Classification	Advantages	Disadvantages
Melvin Diaz	Using wireless radio transmitter based on IEEE 802.11B stds.	Registering or Indication the working of vehicles, communicating information to a remotely located station	Capable of easily obtaining information on the condition of vehicle, hence increasing efficiency and decreasing cost	Use of costly equipment such as Home RF standard Bluetooth and wireless transmitter devices
Mahesh Chodhuray, Gunasekaran Govindarajan	VSM for detecting and recording driving events	Monitoring location of fleet of vehicles	Benefits US provisional patent application entitles Automotive Driver Safety Profile System	Use of Costly equipment such as gyroscope and accelerometer.
Masahito Yamaki	Self-diagnosing system & on board diagnosing apparatus connected to external database and network system	Registering or indicating the working of vehicles, diagnosing performance of data	Diagnosis results are distributed to admin accordingly the notice is forwarded to the user before abnormality occurs therefore increasing system reliability	Sensors may give faulty information at time, not consistent
Kuo Rond Chen, Chun Chung Lee, Cheng Hung Huang	Global positioning module to compute current	Monitoring location of determined number of vehicles	Provides a vehicle management system which enables	Memory limitations due to size of IC card

	positioning information		remote control center to execute manageme nt controls on specific vehicles	
Hiroyuki Yoshikawa	Communicatio n terminal apparatus installed in vehicles, Central control apparatus	Time or Distance	Elimiates user dis satisfaction by decongestin g traffic, thereby enabling save driving	Unable to specify if vehicle is parked or not moving

## ER Diagram

Entities, Relationship between entities, Structural constraints and Cardinality Ratio



## ER- Relational Mapping

### 1) Vehicle Inventory

Vehicle_type	Vehicle_count	Vehicle_fare	Vehicle_availability	Number_plate
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### 2) Vehicle Details

Number_plate	RC_no	Insurance_expiry	PUC_expiry	Working_condition	Availability	Days_booked	Driver_license
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### 3) Driver Management

Driver_name	Driver_license	Driver_availability	Number_plate	Client_Id
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### 4) Tracking

Number_plate	Driver_license	Days_booked	Total_fare
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### 5) Client record

Client_Id	Client_Password	Client_name	Driver_license	Number_plate
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### 6) Admin record

Admin_Id	Admin_Password	Admin_name
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## Tables and Constraints

### 1. Vehicle Inventory

Attribute	Datatype	Constraint
Vehicle_type	varchar2	Not null
Vehicle_count	number	Not null
Vehicle_fare	number	Not null
Vehicle_availability	number	-

### 2. Vehicle Details

Attribute	Datatype	Constraint
Number_plate	Varchar2	Not null, PK
RC_no	Varchar2	Not null
Insurance_expiry	Date	Not null
PUC_expiry	Date	Not null
Working_condition	Varchar2	Not null
Availability	Boolean	Not null
Days_booked	Number	Not null

### 3. Driver Management

Attribute	Datatype	Constraint
Driver_name	Varchar2	Not null
Driver_license	Varchar2	Not null, PK
Driver_availability	Boolean	Not null

### 4. Tracking

<b>Attribute</b>	<b>Datatype</b>	<b>Constraint</b>
Number_plate	Varchar2	FK
Driver_license	Varchar2	FK
Days_booked	Number	Not null
Total_fare	Number	Not null

## 5. Client Record

<b>Attribute</b>	<b>Datatype</b>	<b>Constraint</b>
Client_Id	Varchar2	PK
Client_Password	Varchar2	Not null
Client_name	Varchar2	Not null

## 6. Admin Record

<b>Attribute</b>	<b>Datatype</b>	<b>Constraint</b>
Admin_Id	Varchar2	PK
Admin_Password	Varchar2	Not null
Admin_name	Varchar2	Not null