Fleet Management System (FMS)

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Abstract- *Vehicle Management System is developed and customized for commercial fleet owners and organizations. This modules support most type of vehicles (passenger, Truck, construction and other commercial vehicles) details and maintenance details. It really reduces your vehicles cost while increasing performance and dependability. It tracks your vehicle Insurance, FC Details, Loan Details and tax-deductible, Travel expenses .Provides you alert based on schedule. Eliminate costly unscheduled maintenance. Keep accurate records for any type of vehicle and records for the vehicle services to be done. Help you to plan annual vehicle budgets faster, easier and more accurately. The cost of vehicles maintenance is seen as a major contributor towards operating cost increment. Hence, the study found variables that contributed to the decrease in operating costs. Such variables are fuel, maintenance, tires, repairs, depreciation: battery and tire replacement. This software present an overview of literature studies concerned in operating and maintenance cost and further narrowing down to the variables which strengthens the main purpose of this study. In conclusion, in measuring and estimating the maintenance and operation costs, the vehicle life and efficiency can be increased.*

Keywords- commercial fleet owners, maintanence details, alert, accurate records, annual budget.

I. INTRODUCTION

A Web Based Fleet Management software is developed in this paper for fleet management and vehicle remote diagnoses. This system can be used for many purposes such as off-line vehicle tracking, maintenance scheduling, vehicle problem remote diagnosing, and driver and vehicle status reporting. This system is developed to automate fleet management and decision making. The web based fleet management software is able to measure the mismatch between the trip track that is determined by the operator and the actual track that is recorded by the system to monitor the driver performance.This requires the operator to determine the source and destination of the trip. This system enables the organizations that have different branches to optimize vehicles and drivers distribution. It also reports the mileage, fuel consumption, degree of mismatch, driver assignment, vehicle maintenance problem, and driver status.

This system is designed to be cheap to be used by organizations that have big fleet. Big fleet can't be managed using the online tracking system. The proposed system collects data in a database which will be useful in statistical analysis for fleet management optimization.

The main goal of this web based software is to store and analyze collected data from vehicles. It also enables users to access the system from anywhere through internet.

II. EXISTING SYSTEM

Existing system is a manual one in which user are maintaining books to store information like product details, Distributors details, Purchase sales details and accounts for every month.It is very difficult to maintain historical data.For a very small business with limited income, the manual method might be effective.

III. PROPOSED SYSTEM

The FLEET 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 historicaldata 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.

Benefits:Less human power ,accurate solution and time saving.

IV. LANGUAGE PACKAGE USED

Language Used **:** PHP
Database **:** MySQL

User Interface Design: HTML,AJAX, JQUERY, JAVASCRIPT
Web Browser : Mozilla, Google Chrome, IE8, OPERA
Software : XAMPP / Wamp / Mamp/ Lamp (anyone)

PHP

PHP is a server side scripting language. that is used to develop Static websites or Dynamic websites or Web applications. PHP stands for Hypertext Pre-processor, that earlier stood for Personal Home Pages.

PHP scripts can only be interpreted on a server that has PHP installed.The client computers accessing the PHP scripts require a web browser only.A PHP file contains PHP tags and ends with the extension ".php".

MySQL

MySQL is the most popular Open Source Relational SQL Database Management System. MySQL is one of the best RDBMS being used for developing various web-based software applications. MySQL is developed, marketed and supported by MySQL AB, which is a Swedish company. This tutorial will give you a quick start to MySQL and make you comfortable with MySQL programming.

HTML

Hypertext Markup Language is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets and scripting languages such as JavaScript

JAVASCRIPT

Javascript (JS) is a scripting languages, primarily used on the Web. It is used to enhance HTML pages and is commonly found embedded in HTML code. **JavaScript** is an interpreted language. Thus, it doesn't need to be compiled.

XAMPP

XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P). It **is** a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes.

V. SYSTEM DESIGN

In FMS we use PHP and Mysql database. In this project we have two different users like user and admin.

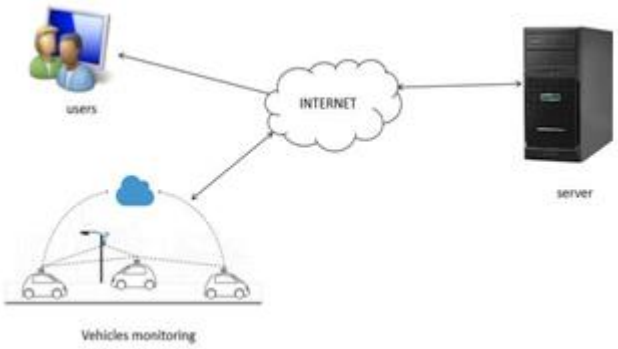
Admin

In this application admin can view the current activity of the vehicles and admin can also view the annual budget for overall vehicles the organization and particular vehicle in the organization till date.

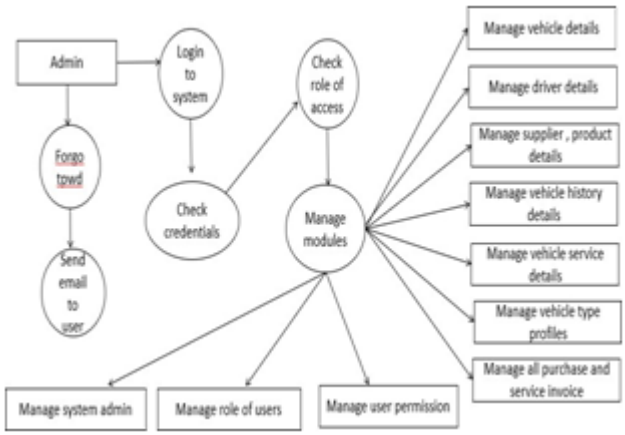
User

The user in the organization will be updating the details about the vehicles simultaneously.

VI. SYSTEM ARCHITECTURE



A. DataFlow diagram



VII. MODULES DESCRIPTION

MASTER MODULE : Master module is an important module as it maintains all the important details. It consists of dropdown list so that you can select the data from the list given in the dropdown list. This module consists of following menu items.

- Brand
- Vehicle
- Site
- Transportation material
- Equipment work type
- Spare
- Oil
- Supplier
- Employee
- Labours

In this module you can add the brand, vehicle type and their details by using add option. Transportation material consists of the master details of all the vehicles. Spare, oil consists of for which vehicle they are supplying their materials. Supplier is the person from whom they are buying the materials. Employee and labour option consists of details of them.

TRIP ENTRIES MODULE : This module is to store the details of the trip made by their vehicle. Transportation vehicle consists

- Transportation vehicle
- Equipment vehicle

Transportation vehicle and Equipement vehicle consists of vehicle number, driver, time of closing the shift. These details can be added by using add option in the edit.

PURCHASE MODULE : The purchase Module was designed to store the goods bought like diesel,oil,etc.

- Diesel invoice
- Oil invoice
- Spare invoice
- Tyre invoice

This module deals with the purchases made for their vehicles. The invoice consists of attributes like date, supplier name, invoice amount, litres.

INTERNAL SERVICE MODULE: This module stores the data about the services made for their vehicle within their organization.

- Diesel
- Spare

This module have details about the goods bought for the vehicles inside their organization.

OUTSIDE SERVICE MODULE: This module is used to store the data about the services made out of their organization.

- Workshop
- Oil service
- Tyre change
- Renewals

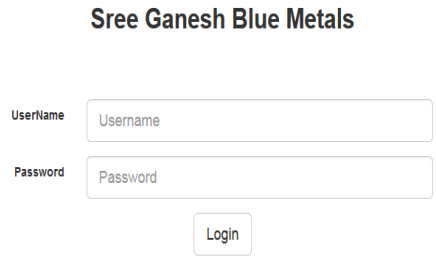
These are the services made for their vehicles out of their organization. The reminder will be set for providing the alert for renewals and services to be done for their vehicles.

REPORT MODULE: The required reports can be taken from this module based on our requirement.

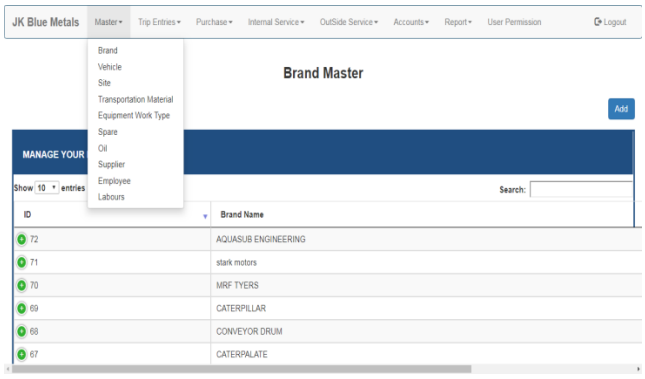
- Trip transport
- Trip equipment
- Internal diesel
- Purchase invoice
- Workshop
- Accounts
- Spare out
- Vehicle
- Trip driver
- Stock spare
- Stock oil

VIII. RESULTS

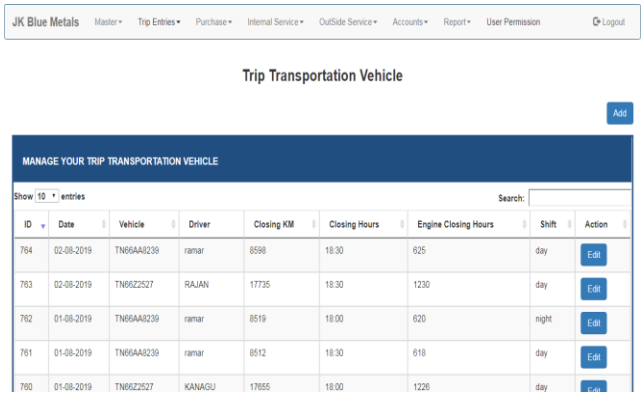
LOGIN MODULE:



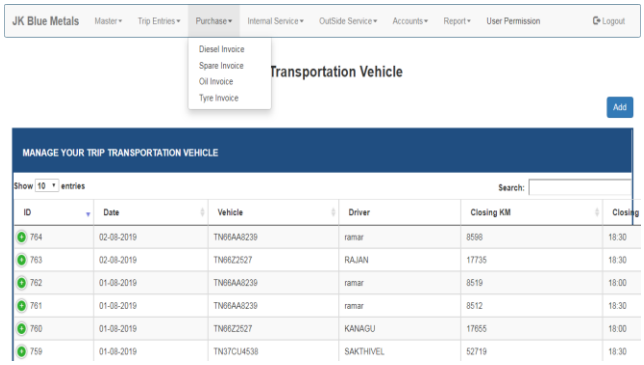
MASTER MODULE:



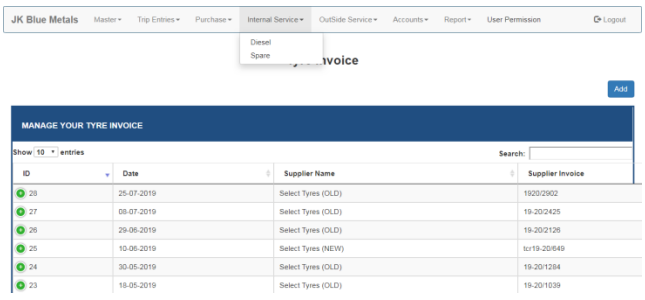
TRIP ENTRIES MODULE:



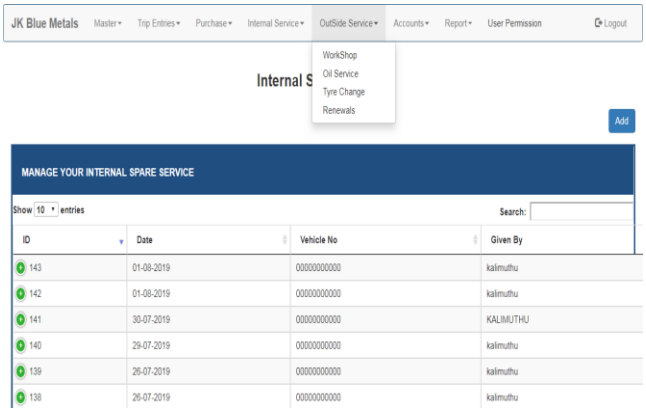
PURCHASE MODULE:



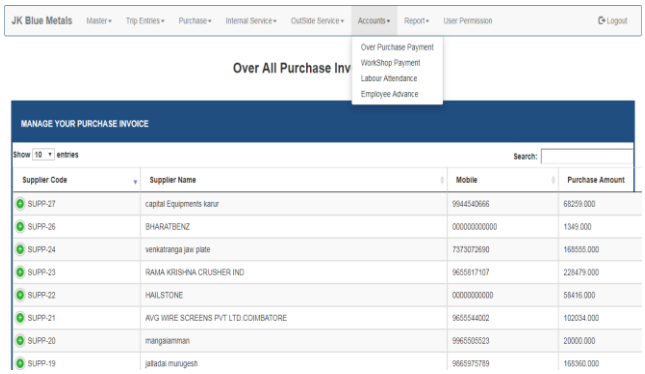
INTERNAL SERVICE MODULE:



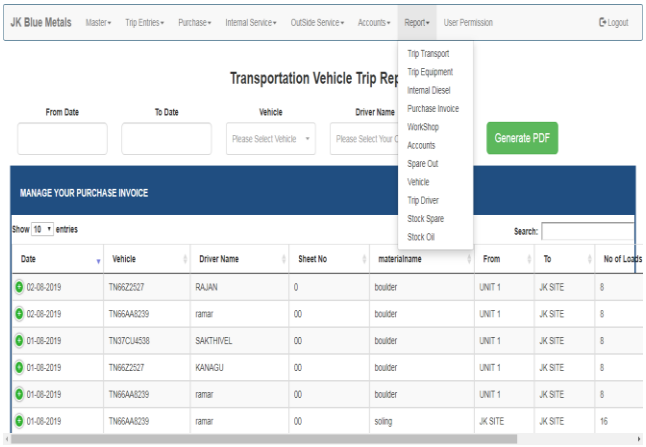
OUTSIDE SERVICE MODULE:



ACCOUNTS MODULE:



REPORT MODULE:



IX. CONCLUSION

The proposed web based fleet management system is an intelligent software that can take many decisions that related to vehicles and drivers. This system enables the organizations that have many branches to optimize vehicles and drivers distribution. It also reports the mileage, fuel consumption, driver performance, driver assignment, vehicle maintenance problem, and driver status. This system is

designed to be used by organizations that have big fleet. This software is able to do statistical analysis for fleet management optimization.

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