Vehicle Service Management System

Project Report Submitted

For

Project Management Course Assignment

Submitted by

Samruddhi Yadav

T184103

DEPARTMENT OF COMPUTER ENGINEERING

MIT Academy of Engineering

Dehu Phata, Alandi (D)

Pune - 412105, Maharashtra (India) 2017-18

CONTENTS

ABSTRACT

Vehicle services management system is the project in which we are making the web- based database for the vehicle shops to store the information of the customers, staff and the services taken by each customer. In which we are creating the interface for the users to store the information in the efficient manner and it be easy for user to search it.

The information store in the database here mysql is used and connected using the web-based interface as front-end. We are making this database using the Sql language and interface using html, php, css and Javascript language.

So, it allows the users to add the details of customers, staffs, vehicle services and the amount related to service done by each customer and store all the information in the database for the record purpose. The vehicle services management system helps the user of vehicle services centre to efficiently maintain the record and generate the bill accordingly.

LIST OF FIGURES

1.INTRODUCTION

Vehicle services centre are having various types of vehicle services such as oiling, repairing, replacing tires, vehicle painting, etc. and most of the customers needed that services to keep their vehicle at good condition. To manage the details of services and the details of customers whose who have took the type of service and to keep the track of records, services centre need to have some type of efficient management system to produce bills and to keep the records. This project will help us to provide the systematic way to store the customer and other details of services management system very efficiently. Also, this project will help to generate the bills of services. It is efficient system for the user who can easily edit/ update/ delete and insert the details of customers.

1.1 Motivations

Now-a-days most of the vehicles service centre in India who are providing lots of vehicle services but the problem arises with storing the details of the customers and services taken by them. Recently, most of the service centres are storing details related to services, staff, customers, etc. in their log book. So suppose when they want to find the name or phone number of the past customers whose take service from their centre it becomes difficult because they need to search each and every pages of the log book. And also, to manage the bills of the services provided to customers we came across the idea of creating the vehicle services management project which will keep the track of customers details record efficiently and produces the bill according to services provided.

1.2 Objectives and Scope

- To create the tighter relationships with customer and deliver the high level of services and support accordingly.
- To make the efficient work system for service centre which will be handle easily by the user.
- To promote to use such types of management system in other fields to make wok efficient.

- To keep track on details of customers and services taken by them.
- Helps to automatically generate the receipt of the customer with the total cost.

2. LITERATURE SURVEY

The survey question where ask to Umesh service centre located at Gokulnagar, Dhanori, Pune-15.

1)What are the most common services provided by your centre for all the types of the vehicles?

Answer: The services like oiling, brake checking, tire grossing, coolant checks, repair puncture.

2)How do you store the details of the customers when the customers submit their vehicle for any kind of repairing?

Answer: For storing all the details when customer has submitted their vehicle we use the manual system where we write details in our form and tick-mark the service which has to be done for the vehicle.

3) Do you keep some backup to store all the details of the past customers?

Answer: No.

4) What are the disadvantages you found from your manual system?

Answer: Sometimes what happens the customer come to our service centre and submit their vehicle for repairing and during repairing we analyze that the vehicle suffers from several issues. For example, suppose when customers submitted the vehicle due to it engine issues we come across during repairing their vehicle have another problem too. So, what happen most of time when we call the customer for confirmation to repair the sudden problem took for their vehicle the customers not respond us properly. They rise the negativity that we are not properly maintaining the records and services title and just to rise money of our centre we people are only creating n number of issues with their vehicles.

5) So, do you what to refer the online system to maintain the records of the customer and their vehicles rather than using manual system?

Answer: Yes, we like to use it but it should not out of ours budget.

VEHICLE SERVIC RECORD

Services	2W cost [Rs]	4W cost [Rs]	Customers Range [2W]	Customers Range [4W]

6) Suppose we provide you the system where we install it only in our machine and also it is under your budget, can your centre hopefully use it?

Answer: Yes, why not when it is making our works easy then we will refer it.

Types				
Oiling	300	800	100-200	200-220
Change oil filter	1100	3000	20-50	30-40
Lubricate chassis	3000	5000	50-60	50-60
Change transmission fluid	5000	6000	0-10	0-10
Change air filter	2000	4000	0-19	0-19
Tune engine	2000	3000	50-60	50-60
Adjust brakes	100	300	20-30	20-30
Replace tires	1100	4800	150-155	150-155
Add antifreeze	500	800	0-0	0-5
Rotate tires	250	500	40-60	40-60
Flush cooling system	0	150	0-0	0-8
Painting	3000	30000	20-25	20-25
Servicing	2000	7000	200-250	200-250

Table no 1: Vehicle Services Record with Range and Amount of services taken by customer

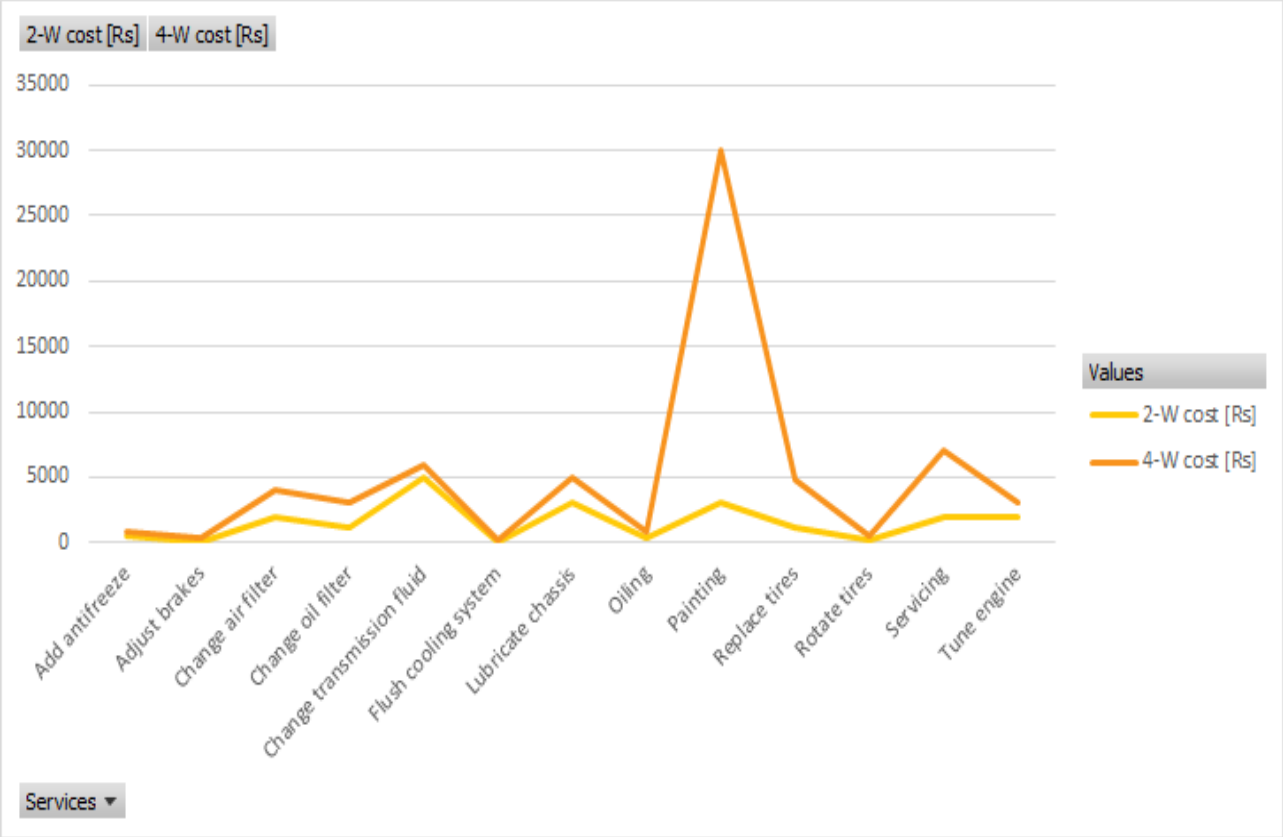

Fig no 1: x-axis: services types and y-axis: Amount of services

3.SYSTEM DESIGN

1) Functional Requirements:
   - In this project, the user need to give the input of the customer details ,vehicle details and servicing details in order to store it in the database.
   - Prior to first user need to login by username and password that is given to the system. User can change username and password.
   - There can be many users which can operate this system each of having their own username and password.

2) Non-Functional Requirements
   - When there is wrong password or username entered it will pop up a window with message of invalid.
   - After the submission of the details it will show the message data submitted for acknowledgement of the user.
   - It will also show the receipt of the customer bills with all details of the customer.

3) System Requirements:

1. Hardware Requirements (Minimum):-
   - Pentium IV Processor
   - 1GB RAM
   - Hard Disk : 10GB
2. Software Requirements:
   - Windows 7 and later
   - Programming Languages : Java (jdk 1.5)
   - Database : MySQL
   - IDE :Netbeans, Eclipse, etc.

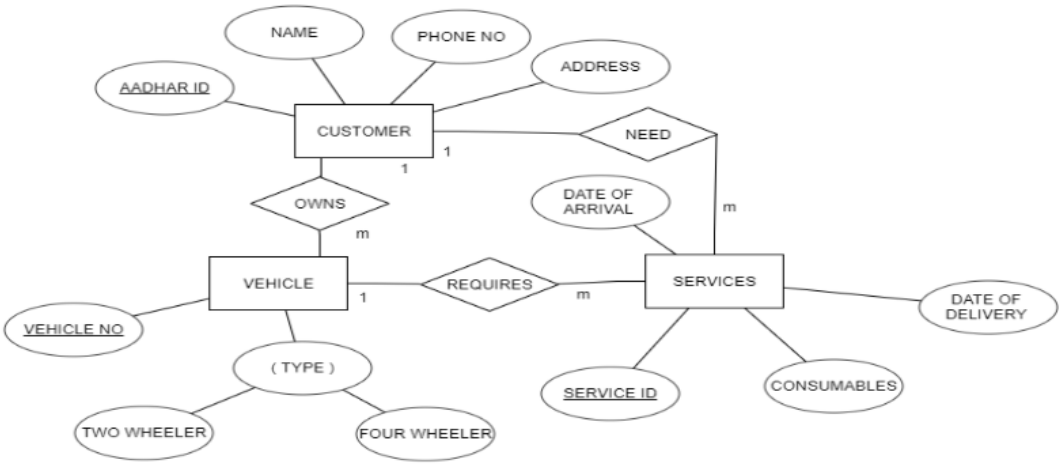

Fig no 2: ER Diagram

- Database Tables with attributes :
- Customer(aadhar_number,name,address,mobile,email_id)
- Twowheeler(vehicle_number,vehicle_type,aadhar_number)
- Fourwheeler(vehicle_number,vehicle_type,aadhar_number)
- Service(service_id,arrival,delivery,parts,consumables,total,aadhar_number)
- Own(aadhar_number,vehicle_number)
- Require(vehicle_number,service_id)
- Need(aadhar_number,service_id)

IMPORTANT FEATURES:

- This system will help user to store all the records of customer details with the help of database.
- For the safety of data , user needs to log in in order to access the data from the database and to make changes in it.
- This system will automatically generate the receipt of the customer with the total cost , customer needs to pay by adding tax on it accordingly.
- The system has user friendly interface, so any user can easily operate it without any confusion.

4.IMPLEMENTATION DETAILS

Steps:

- Install the Xampp server (Apache, Mysql, tomcat, FileZilla, Mercury) in Windows 64 bits.
- Then turn on the Ports and PIDS by turning action on of the Apache, changing some settings using config tab on Xampp display.
- Similar turning on all Ports and PIDS of MySQL database and click on Start tab.
- Click on the Admin tab of MySQL so we will get the website "localhost/phpMyAdmin".
- Then in MySQL screen click on new Database and giving it suitable name. And then click on new table and giving suitable name for each table like here 'Login', 'Customer', 'Staff', etc.
- Creating all require tables in MySQL database (back-end). Also, we can add/delete / insert the rows and tables by giving each attributes the suitable constraints.
- Install Notepad++ software.
- Connecting the front-end with MySQL database by writing below code in notepad++ and save this .php file under the C://Xamp//New_folder// xyz.php

  For example:

```
<?php
$servername = "localhost";
$username = "root";
$password = "";
$database = "user_login";
// Create connection
$conn = mysqli_connect($servername, $username, $password, $database);// Check connection
if (!$conn) {
die("Connection failed: " . mysqli_connect_error());
}
echo "Connected successfully";
?>
```

- Here the file gets connected with MySQL database.
- Now, similarly creating n number of required files in Notepad++ software creating like html pages, .css file and saving the whole file with extension .php under C://Xamp//New_folder// xyz1.php
- After that go to website icon and type " localhost/New_folder/ " so all the files under New_folder get display .
- Click on any files and perform suitable action for that.

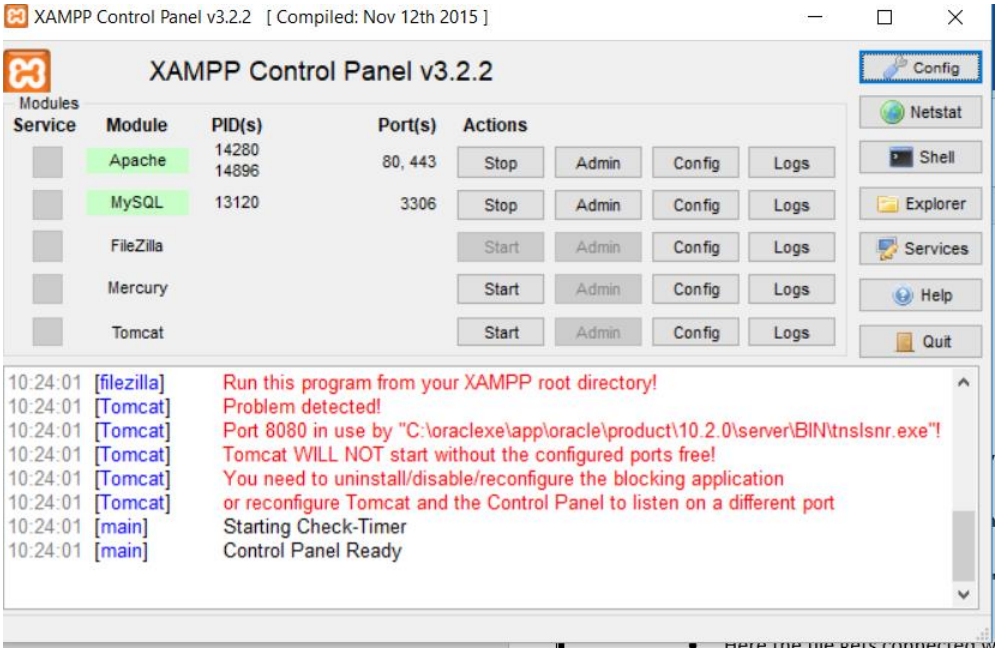

Fig no3: Mysql setting to store database

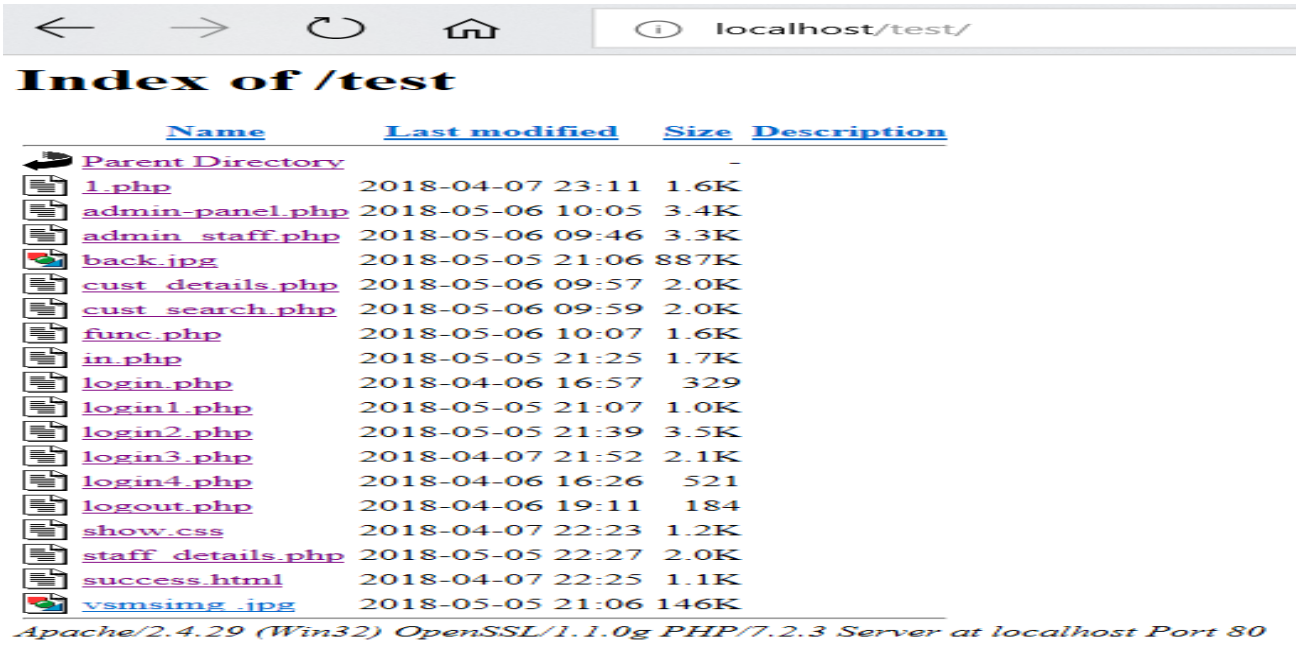

Fig no 4: Accessing the contents of .php

FINAL SCREEN

Successfully implement the vehicle services management system on stand-alone system. The any user can able to use it in efficient way.

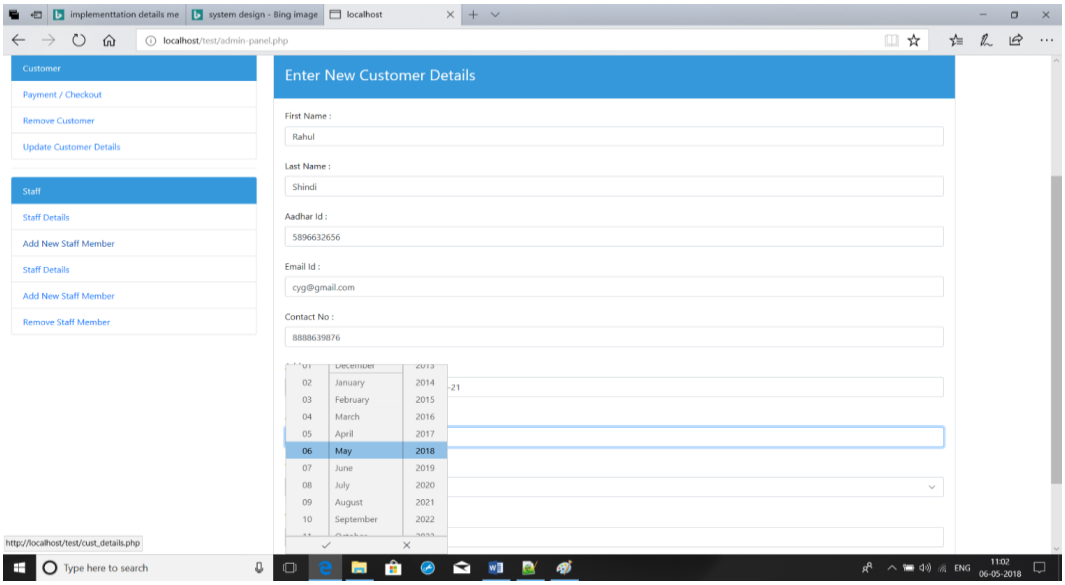

Fig no 5: inserting new customer details

6.DURATION OF PROJECT

The duration of project was 120 hours

Sr.No.	Activity	Duration(Hours)
1	Planning	15
2	Analysis	35
3	Design and Implementation	70
	Total	120

7.COST OF PROJECT

Sr.No.	Components	Amount(in Rs)
1	Internet charges	500
2	Human resources	500
	Total Cost	1000

6. CONCLUSION

- Automation of entire system improves efficiency.
- It provides the friendly graphical user interface which proves to be better when compared to the
- existing system.
- It gives the appropiate access to the authorized users.
- Updating the information becomes easy.
- Data security and the reliability is an important aspect of the system.
- The system has adequate scope for modification in future if it is required.
- The system will may offer the prices for maximum number of visited person in future.

7.References

- [1] Hariharan A.” An Intelligent management system”, International Journal of Emerging Technology in Computer Science ISSN: 0976-1353 Volume 8 Issue 1 – APRIL 2014.

- [2] P. Priyanka, V. Sharmila, V.C. Sindhu, P. Sangeetha” service management systems, International Journal of Research and Engineering Volume3, Issue3