

Online Vehicle Recovery Tracking System

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Abstract – In today's world, Vehicle recovery system are very essential in monitoring and stolen vehicles. Vehicle Recovery system is a work which aims in developing a computerized system to provide a better and a more efficient system for owners of registered vehicles to easily get back their stolen vehicles once they are found and also recordkeeping of vehicles. This work seeks to develop a software that facilitate vehicle information, registration of vehicle through which the admin can track and found the stolen vehicle. This system is developed to help the vehicle management to maintain the vehicle registration licensing in the best way possible thereby reducing stress and manual efforts. The system was implemented using PHP scripting language, HTML, MySQL Server, and Macromedia Dreamweaver.

Keywords – *Vehicle recovery system, tracking system, vehicle Registration.*

I. INTRODUCTION

Vehicle Theft implies the expulsion of a vehicle without the assent of the proprietor of the vehicle. 'Vehicles' incorporates all land vehicles with a motor that sudden spike in demand for the street, including vehicles, bikes, transports, Lorries, development and rural vehicles. Vehicle burglary is the criminal demonstration of taking or endeavoring to take a vehicle (or some other engine vehicle). In the year 2012 in U.S, there were an expected 721,053 engine vehicle burglaries, or roughly 229.7 engine vehicles taken for each 100,000 occupants. Property misfortunes because of engine vehicle robbery in 2012 were assessed at \$4.3 billion and furthermore a large number of vehicles are taken each year

which is later exchanged in the market as either Tokunmbo (Direct Belgium) or as second gave vehicles. Unsuspected individuals from open purchase such vehicle (at times intentionally) as Tokunmbo.

Nowadays, it has become a common thing in the news as more vehicles are been stolen from their owners every day in various places. If there is a centralized database where stolen vehicles records are kept, it becomes very easy to contact the owners when such vehicles are recovered. Hence we often hear of cases where the police or other force units in the country makes arrests of thieves and recover these stolen vehicles. Most of the times, the owners are not able to get back their cars and eventually these cars are left at various

police stations. This system tries to check the issue of cars recovered and returned to the owner by sending an SMS to the owners notifying them that their vehicles' have been retrieved.

II. VEHICLE MONITORING OR TRACKING

In most of the developing countries, drastic increase of vehicle ownership generates a great demand on transportation infrastructures. In any case, the street and rail arrange development could barely satisfy the prerequisite of ever-expanding traffic requests and hence exacerbate traffic condition and street security issues. Vehicle monitoring system is an intelligent system that integrates hardware and software and utilizes surveillance, communication and information technologies to observe the condition or situation of a vehicle by the user, and third party over the time. The framework can give cautioning to the driver if any conceivable risky or unsafe condition is identified while the outsider can watch and alarm the driver when any driver irregular condition is found.

Normally, the vehicle monitoring system consists of vehicle terminal, communication link and monitoring Centre. The framework gathers different information at vehicle terminal continuously and afterward transmits the information through correspondence connect to the checking Center for observation purposes. The recent vehicle monitoring systems are developed by using GPS technology. The satellite-based positioning technology is invalid to locate the vehicle. In addition, most of the vehicle monitoring systems emphasize on the location of vehicles but not the condition of vehicles and drivers. Meanwhile, the monitoring system which can monitor the condition of drivers is not integrated with the real-time positioning technologies. The monitoring system with fixed work station is useful in monitoring scenarios such as running red light and over-speed for accident prevention but this kind of monitoring system is installed at certain places only. For the remote correspondence connection, GSM and GPRS are steady and solid advancements with included worth that no framework establishment is required yet the information charge is faulty. Regarding the observing focus, the frameworks are excessively subject to web get to which ought to be stayed away from because of the way that some remote checking focuses are situated in rustic territories with poor system inclusion.

2.1 Review of Related Work

In the existing system, different tracking techniques are used such as integration with Google maps, Automatic transit directions or real time tracking and arrival time prediction.

Tracking systems were first developed for the shipping industry because they wanted to determine where each vehicle was at any given time. Tracking servers were used to maintain all information received from all in vehicle units installed in different vehicles into a central database. This database is accessible from internet to authorized users through a web interface. Authorized users can track their vehicle and view all previous information stored in database. Below are review of related existing works.

[1] Proposed a vehicle following structure using GPS. To achieve customized vehicle zone structure that can transmit the territory information dynamically. Dynamic structures are made. Observation is resolved to vehicle alert structure and the strategies for sending the data to the owner of the vehicle using SMS when the alarm is enacted. Due to the inefficient standard vehicle security system, the possibility of the vehicle can be taken is high.

[2] Proposed a vehicle arranging checking structure. The precision and exactness is given by CORS organization framework and Mobile which has also checked the believability to facilitate CORS and Mobile GIS for adaptable region organizations. GPS urges in to get exactness and fast for acting in speedier way. It is generally fitting for taxi checking and course, vehicle against robbery and various fields.

[3] Proposed a GSM Based Vehicle Registration structure that helps in the affirmation and evaluation of road admirable cars and it is in like manner used to follow taken vehicles by getting to the motor approving database remotely. The assignment is fitting for a wide extent of uses on remote database access as it will in general be applied in various regions of human life. The item can be changed to fit in any affiliation. Generally, it is used to get to data remotely wherever, at whatever point, even territories outside the country that has a GSM incorporation.

[4] Studies computerized vehicle return framework wherein status data of a leased vehicle is naturally followed during the rental time frame and is transmitted to a chose goal PC after driving the vehicle into an arrival territory. Electronic vehicle checking hardware is attached to existing segments inside the vehicle to monitor the status of the vehicle during the rental time frame. The status data incorporates, miles driven, fuel level, get time, drop off time, mileage on the vehicle, and so forth. The status data is utilized by the goal PC to produce a bill for the leased vehicle's the robotized vehicle employing framework improved the manual method of leasing vehicles, which he accomplished it by making the framework mechanized.

[5], Proposed a vehicle following application. The information gathered from GPS collector is sent to the web server by means of GPRS cell arrange. At the point when the clients need to screen their vehicles, a solicitation is sent from an application to the web server, that will procedure these solicitation and reacts back to the mentioning application. Since the application is server subordinate, along these lines server disappointment will cause major issues. In vehicle GPS beacon (VTD).

[6], a client must make an impression on a sim-card introduced on VTD equipment. The client will get an answer from the VTD as far as directions i.e., scope and longitudes. The client taps on got organizes so as to see the area of a vehicle on google maps. In VTD, the nonappearance of easy to use application makes it improper for some clients.

[7], vehicle following framework is built up that gets GPS flags and transmit it to the web server. Moreover these signs are sent to the vehicle proprietor as SMS. The framework gives area, date and to follow the taken vehicle in the most brief conceivable time, speed data to the proprietor if there should be an occurrence of vehicle's robbery.

As per [8], customer programming based android stage is created. The entire framework comprises of four sections for example vehicle terminal, observing server, advanced mobile phone application and a GPRS organize. GPRS arrange is utilized to transmit information to the state data, for example, area and speed and afterward sends this data to the server by means of GPRS. The advanced cell application is utilized to get to the server and to show the area of the vehicle on a guide. The greater part of the current plans for vehicle following depend on a focal web server. The clients send demand message to the server so as to follow the area of a vehicle. The server at that point answers with the necessary data to the client in the wake of accepting the GPS facilitates from the vehicle. The downside of this plan is a utilization of focal server which is a solitary purpose of disappointment. On the off chance that the server quits working, the entire framework will crumble. In addition, if a solitary client is intrigued to follow his vehicle, the utilization of focal server is named as misuse of assets.

[9] Proposed a system for perceiving quick vehicles, travel guideline necessity and electronic cost collection. The issues related with selection plate affirmation are, plate pictures have particular quality and game plans. They endeavored to decide the issues with picture taking care of gadgets for evacuating only the zone of interest. This count is attempted with vehicle pictures of different establishments and lighting up. The camera community, seeing plane and the

great ways from the vehicle were varied. The outcomes of investigations are fascinating with worthy precision rate. Regardless, due to uproar in the image and nature of camera, there can be an opportunity of a misstep in perceiving a character. There are some other typical slips up done by the figuring.

III. ANALYSIS FOR PROPOSED SYSTEM

The idea behind this vehicle recovery system is that provided a vehicle has been registered, and if such vehicle is stolen, the owner of the vehicle should be notify as soon as his vehicle is found and where he can go to get it back with the relevant documents. The technology behind the product of the service is that the vehicle owner is notified as soon as his vehicle is found and the vehicle recovered table in the database updated to reflect the vehicle status as been found.

In this system, somebody's' vehicle has to be first registered and when it's stolen, he log a complaint. The status of the vehicle is changed to stolen in the table for vehicles stolen in the database. When the vehicle is finally found, the database table for recovered vehicles is updated and status of the vehicle changed to found and these triggers a SMS to the phone number or email associated with the vehicle during registration and details of how he will get back his vehicle is sent to him.

3.1 Design of the Proposed System

The main Objectives of the proposed system are as follows:

1. To provide a better and a more efficient system for owners of registered vehicles to easily get back their stolen vehicles once they are found.
2. To formulate the vehicle recovery system.
3. Simulate a model that will be used for vehicle recovery.
4. Evaluate the performance of the simulated model developed.
5. To enhance the database for proper information and recordkeeping

3.2 System Architecture

System Architecture is an assortment of between subordinate physical gadgets along with their programming which gives the usefulness and execution to which the framework was planned. It covers all the exercises important to set the framework that has been broke down and intended to be completely functional to the clients.

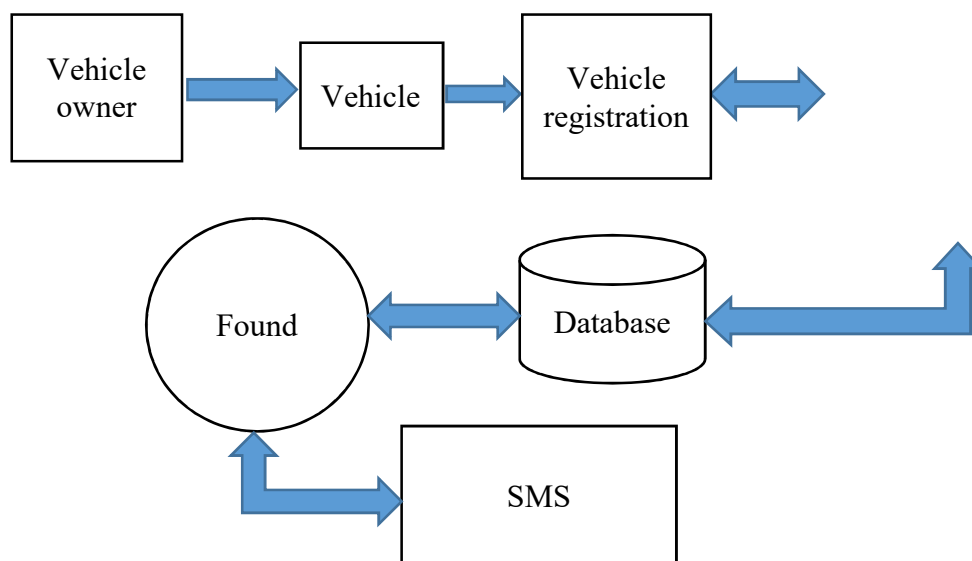


Figure 3.1: System architecture for the system.

IV. RESULTS AND DISCUSSION

This vehicle recovery System is design to combat the issue of a vehicle been stolen and still not been able to be gotten by the owner after it has been recovered by the police or other force agencies. This system works with two database tables and sends an SMS to the vehicle associated with the vehicle during reporting that the vehicle has been recovered and details to bring along when coming. This vehicle recovery system was written using HTML for the front-end user interface, Java Enterprise Edition for the enterprise application and the source code is provided in Appendix.

When a user clicks the login link, he is taken to the login page where he is prompted to enter his username and password and on clicking the login button, the system checks the role associated with that password and username and takes you to the homepage associated with those details. If the associated role is vehicle owner, the system takes you to the homepage. If a vehicle owner registers he vehicle and it gets stolen, he can enters the following details chassis number, engine number, email, phone number, vehicle picture etc. and the clicking the report button, he successfully reports that his vehicle has been made. Below is a screenshots of the proposed system.

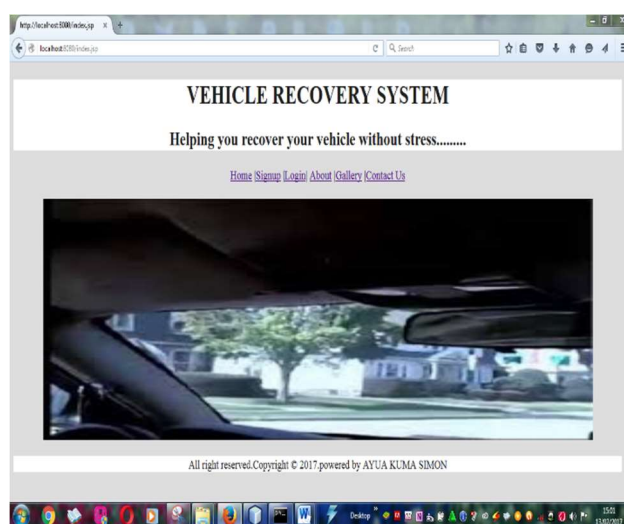


Figure 4.1: Screenshot of home page

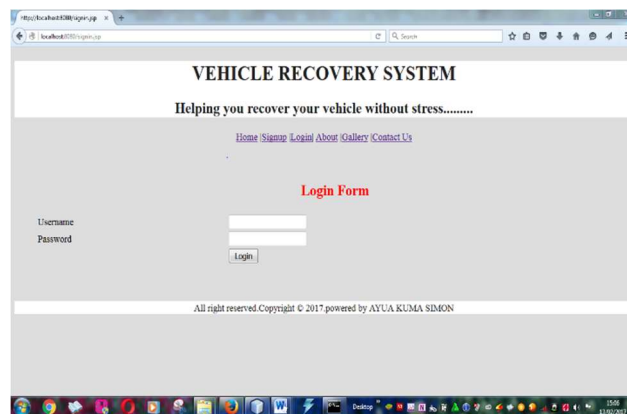
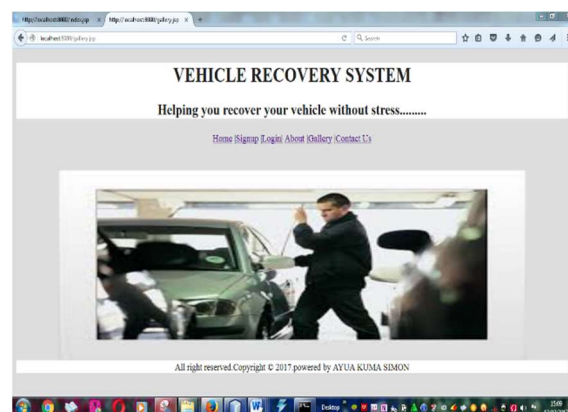


Figure 4.2: Screenshot of Login page



4.3: Screenshot of Gallery page

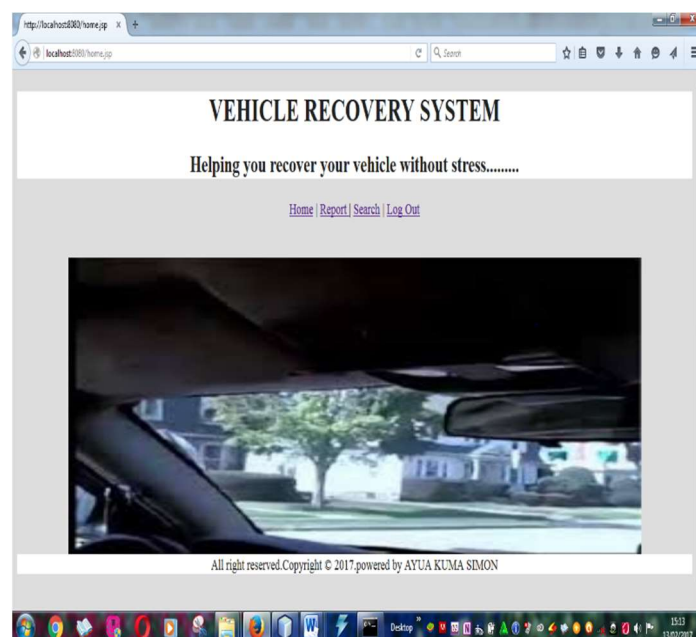


Figure 4.4: Screenshot of Vehicle owner homepage

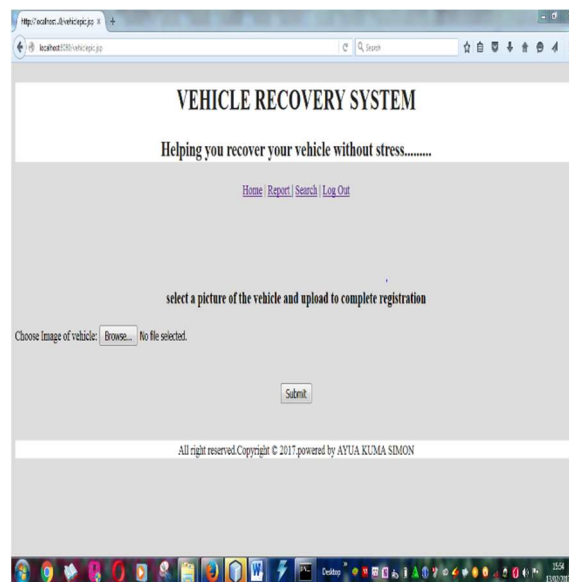


Figure 4.5: Screenshot of Stolen vehicle reporting page

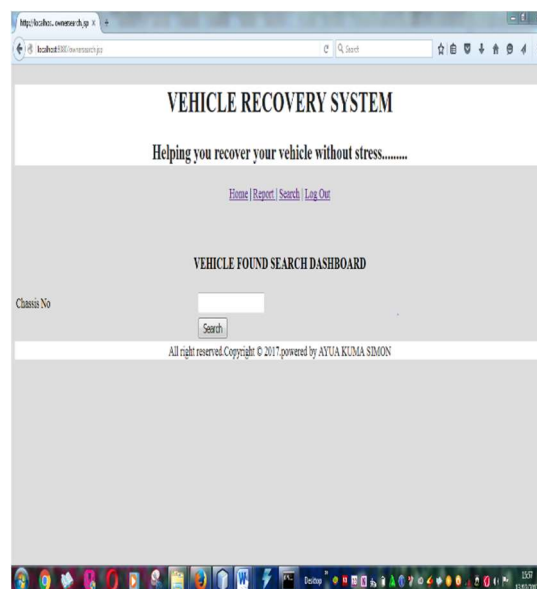


Figure 4.6: Screenshot of Vehicle search page

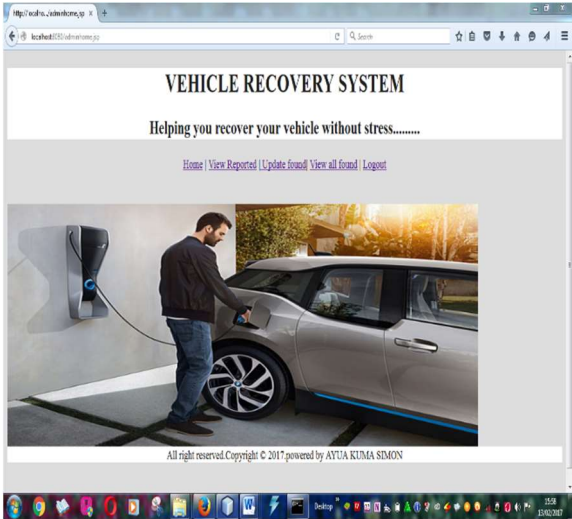


Figure 4.7: Screenshot of Admin home page

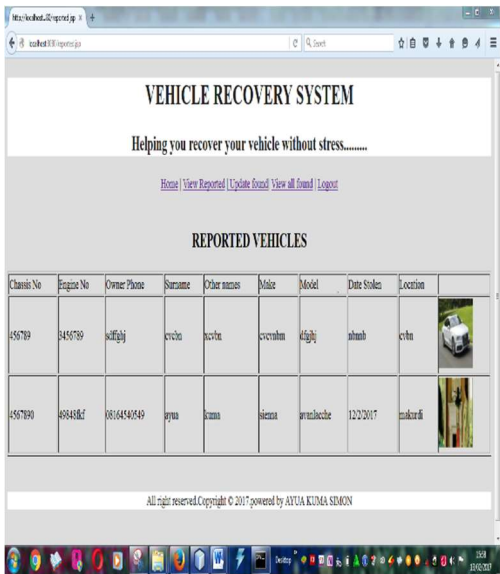


Figure 4.8: Screenshot of View reported page

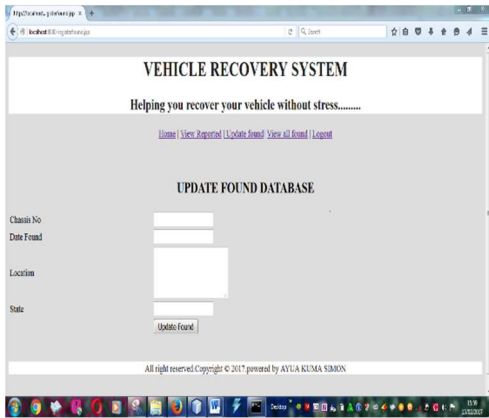


Figure 4.9: Screenshot of Update found page

V. CONCLUSION

This vehicle recovery System is design to combat the issue of a vehicle been stolen and still not been able to be gotten by the owner after it has been recovered by the police or other force agencies. This system works with two database tables and sends an SMS to the vehicle associated with the vehicle during reporting that the vehicle has been recovered and details to bring along when coming.

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