Enhanced Check-Post Clearance and Fast Track Monitoring System

Nadella Giri Kumar [1], Prof.S.Ramesh [2]
[1]Nadella Giri Kumar, Dept. of MCA, EAIMS, Ramapuram,Tirupati, AP, India
[2]Professor, Dept. of MCA, EAIMS, Tirupati, AP, India

Abstract- **The Enhanced Check-Post Clearance and Fast Track Monitoring System is concerned with the inter-state road permit activity i.e. in order to permit a vehicle to transport across the states. As per now, no state has a central check post management and even though some places has one, it's been used only to see the weigh bridge known as the weigh bridge check post systems . The project was conceived with the intention to computerize all the check posts of regional transport office (RTO) for checking the over weight of commercial vehicles. The existing system has to collect all the details pertaining to all commercial vehicles of that place and also vehicles from the neighboring states. The data of each and every vehicle will be updated at the check post level whenever a transaction takes place. The proposed system will have a system like Integrated check post where the details of each and every vehicle and the respective owner will be maintained centrally. So whenever a vehicle visits a check post the registration number will allow you to know the entire data of particular vehicle / owner. The Registration, Permits and License details will be maintained in the centralized server which the authorities can see according to the access they have been provided.**

Index Terms- **RTA, Customer, check post master.**

1.
2.

1 INTRODUCTION

The Enhanced Check-Post Clearance and Fast Track Monitoring System is concerned with the inter-state road permit activity i.e. in order to permit a vehicle to transport across the states. In order to get a permission to move across the states the owner of the respective vehicles has to get registered with their respective R.T.A'S to get permission to move across.In order to maintain an interaction between different state R.T.A'S .The main role played here is by the CHECKMASTER who maintain a centralized database. The details of the vehicle's and their respective owner detail's are stored at their state R.T.A'S database whenever they register the vehicle by using a local database their process get's updated in the centralized once.The application software shall be menu & screen driven and will accept various parameters of the vehicles with data flowing from the gadgets installed at the check gate and shall generate the necessary fields to calculate the fines and other MIS reports for the revenue augmentation of the operations under guidelines from the RTA

Project Modules:

- Registration of vehicle
- Issue of permits
- RTO validation
- Driving license validity
- Permit validity

Registration of motor vehicle

Each and every vehicle have to get registered by their respective R.T.A'S to get permitted to travel on road's. In order to get registered the owner's have to provide few detail's to be entered in the register form such as, vehicle owner name, owner address, engine number, color ,month and year of manufactured, maker's classification, type of vehicle, seating capacity, photo image, finger prints etc.

2. ISSUE OF PERMITS

In this module based on the details provided by the vehicle owner regarding the details of the license, vehicle pollution check certificate, vehicle fitness certificate, the permissions are given to stage carriers i.e. buses, for contract carriers(as taxes and contracted vehicles)and also for goods carriages permits.Once a vehicle gets permission certificate then it can be allowed to travel across the states. After processing all the details R.T.A'S of respective

states gives the validity tenure i.e. issue and expiry dates and these details gets updated to the central database.In case of goods carriers like trucks the weigh load is calculated before the movement from one state to another. Depending upon its vehicle structure the weight permits assigned. Whenever it is over weighed than suggested weight he should be penalized and the date and time of the penalty is maintained. And the different types of penalties are charged for offending the government rules.

3. RTO VALIDITY

By the details provided by the vehicle owner during registration such as personal details and vehicle details, one can confirm that his/her registration is valid when we get a registration validity tenure i.e. issue and expiry date and by cross checking the present registration is within the tenure or not if else they are penalized based on the rules/sections provided according to the government act .If they fail in the registration validity the owner can renew their validity at the R.T.A'S and the updates are again resembled at the central database.

4. DRIVING LICENSE VALIDITY

On furnishing the details for the license by the furnisher, on account of the legal documentation verification the R.T.A'S provide a validity of license for a particular tenure i.e. issue date and expiry date and a license number along with license holder name, address.Based on the above details and also the validity of the license they are given permission to move across the check post of different states and once their validity duration gets expired it has to be renewed or else they are penalized.

5. PERMIT VALIDITY

In this module, one has to enter the permit issued date and expiry date, the name of the permit holder, also the permit type whether it is a stage carrier or goods carrier or etc and also they cross check the permit weight of the respective permit details in order to cross check or verify whether he/she have got a valid permit or not or else they are fined according to their offence.

3.1 UML Diagrams:-

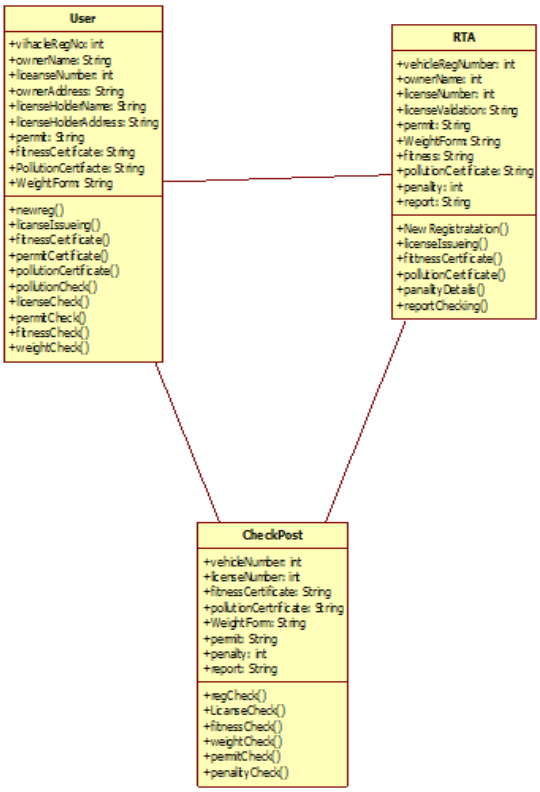
UML stands for Unified Modeling Language. UML is a language for specifying, visualizing and documenting the system. This is the step while developing any product after analysis. The goal from this is to produce a model of the entities involved in the project which later need to be built. The representation of the entities that are to be used in the product being developed need to be designed.

There are various kinds of methods in software design:

They are as follows:

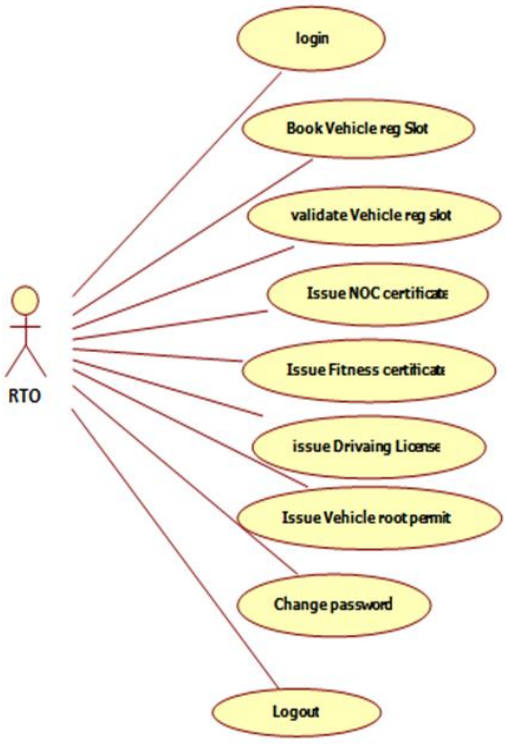
- Use case Diagram
- Sequence Diagram
- Class Diagram
- Activity Diagram

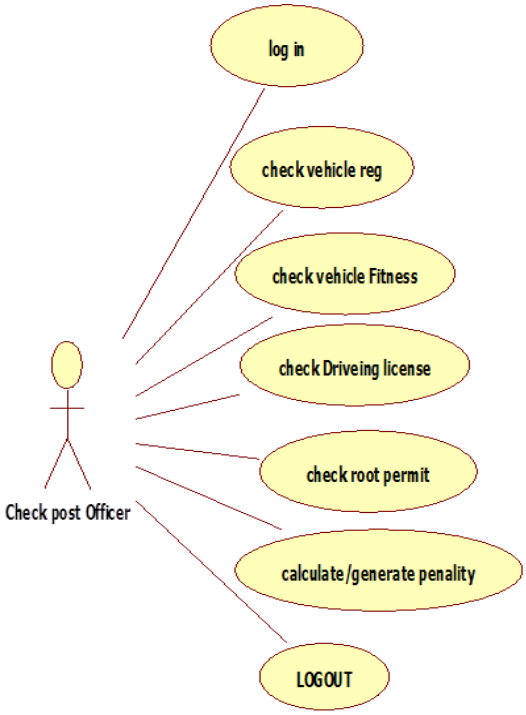
3.1.1 Class Diagram



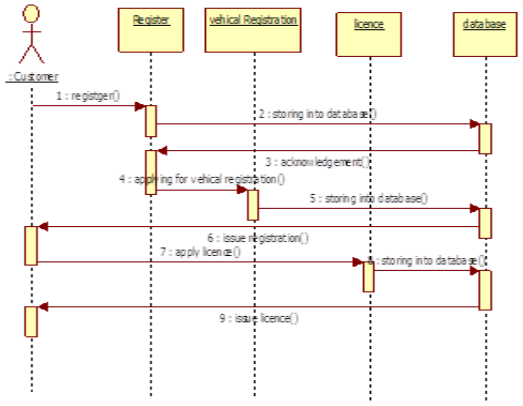
3.1.2 Use Case Diagram

A Use case is a description of set of sequence of actions. Graphically it is rendered as an ellipse with solid line including only its name. Use case diagram is a behavioral diagram that shows a set of use cases and actors and their relationship. It is an association between the use cases and actors. An actor represents a real-world object. Primary Actor–Sender, Secondary Actor Receiver.

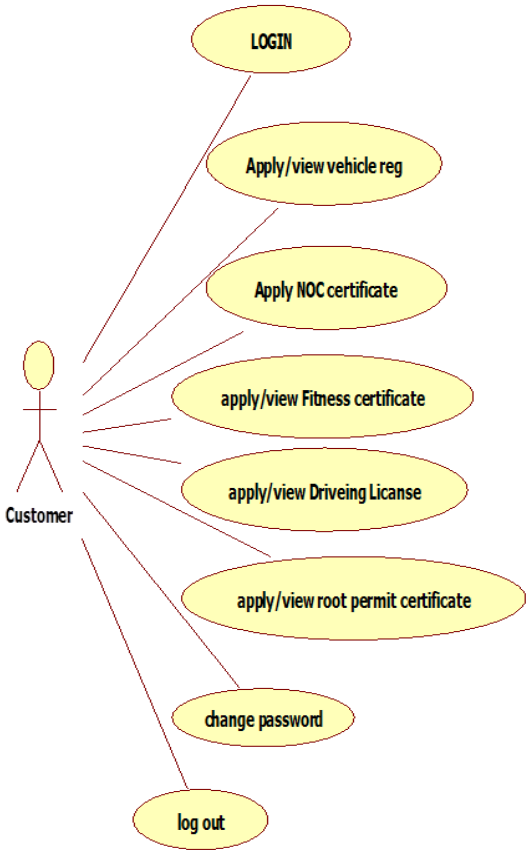


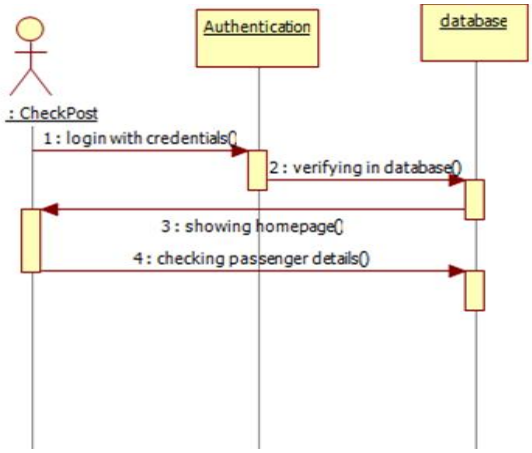


Customer Sequence diagram



Check post Sequence diagram





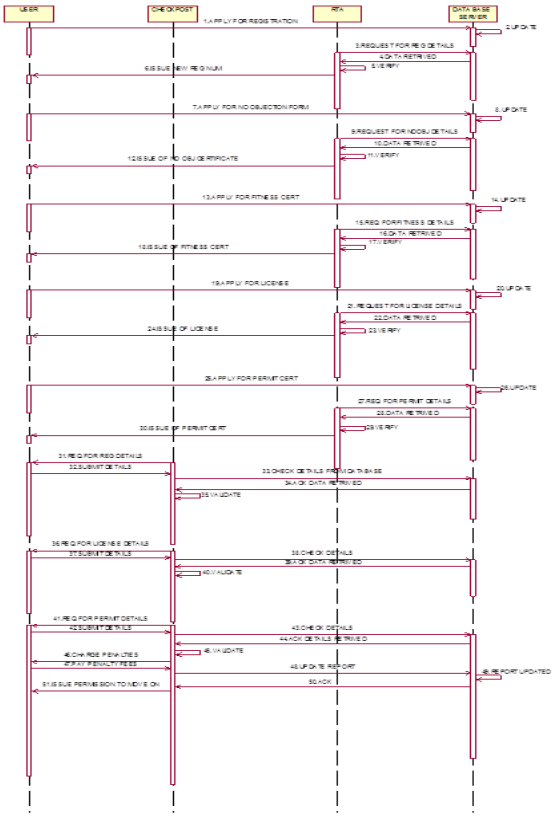


Fig: Check Post Activity Diagram

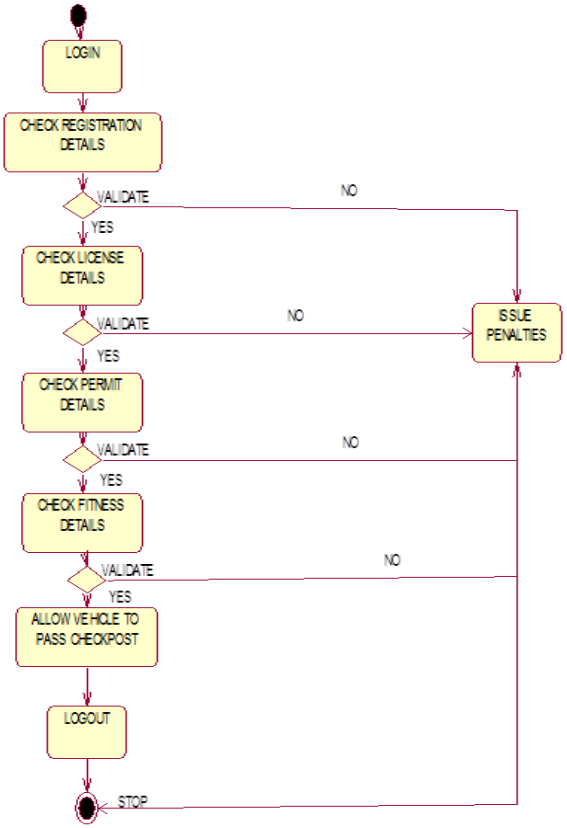
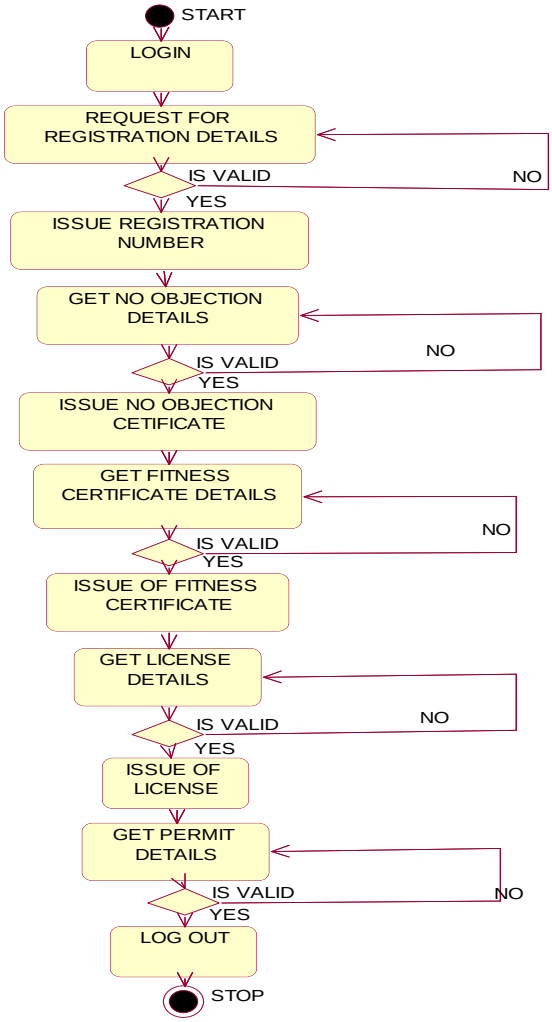
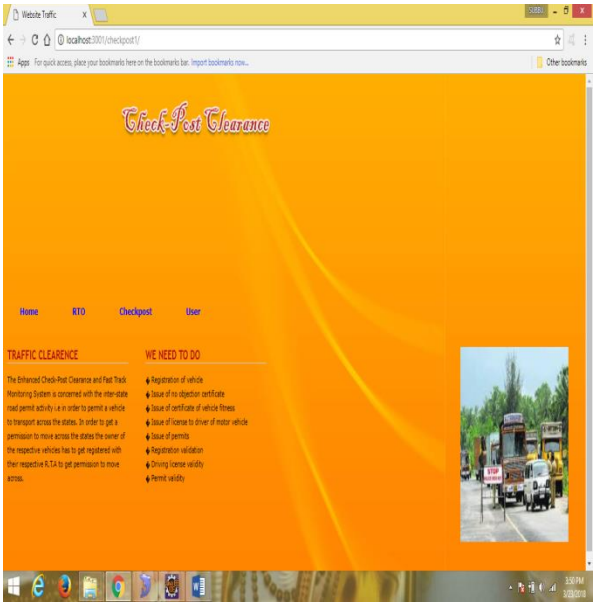


Fig: RTA ACTIVITY DIAGRAM

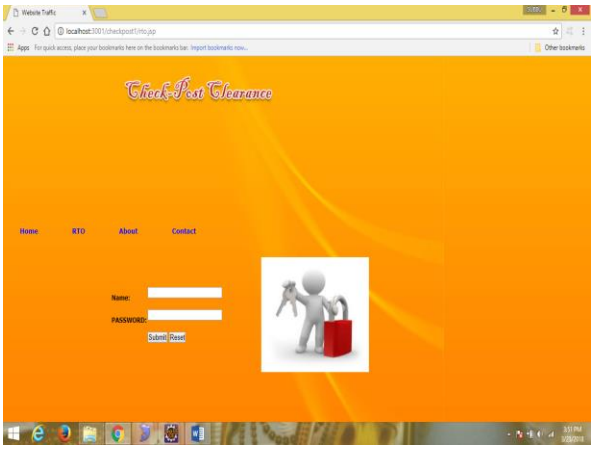


SCREEN SHOTS

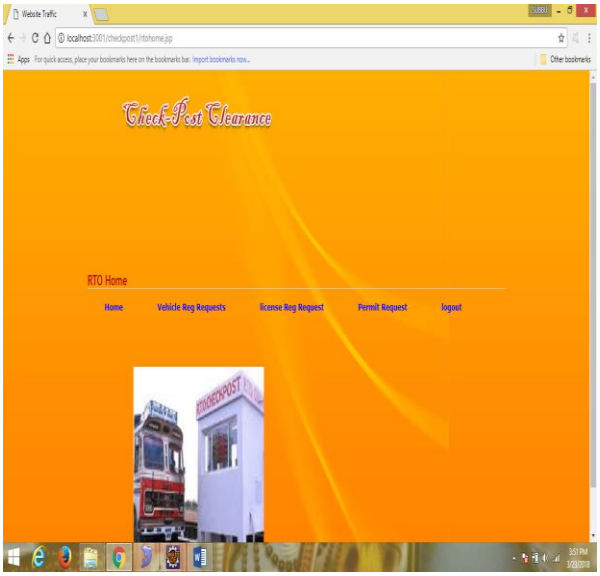
1. Check Post Homepage



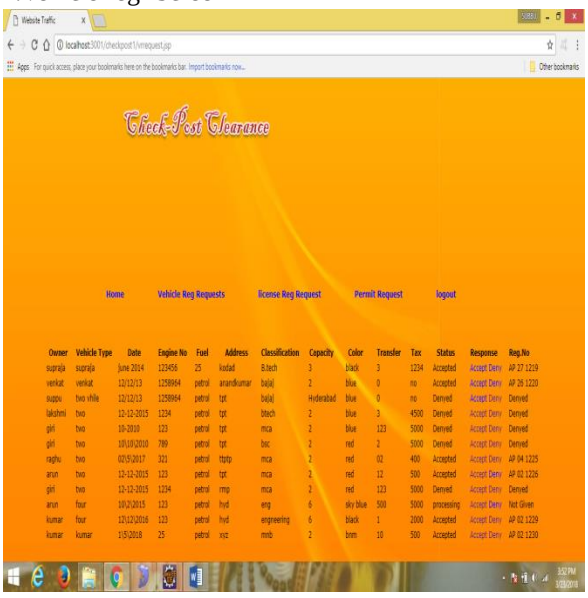
2.RTO Registration Screen



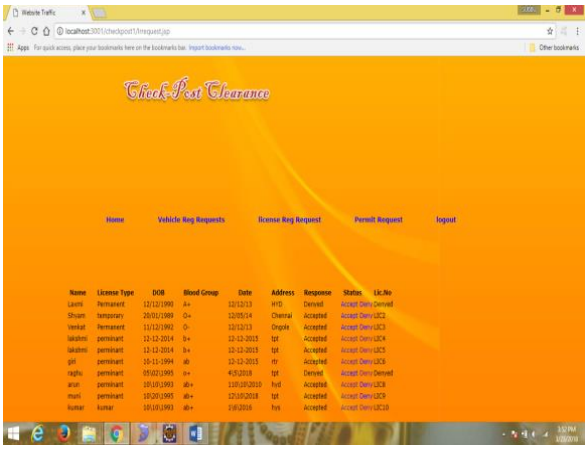
3.RTO Home Screen



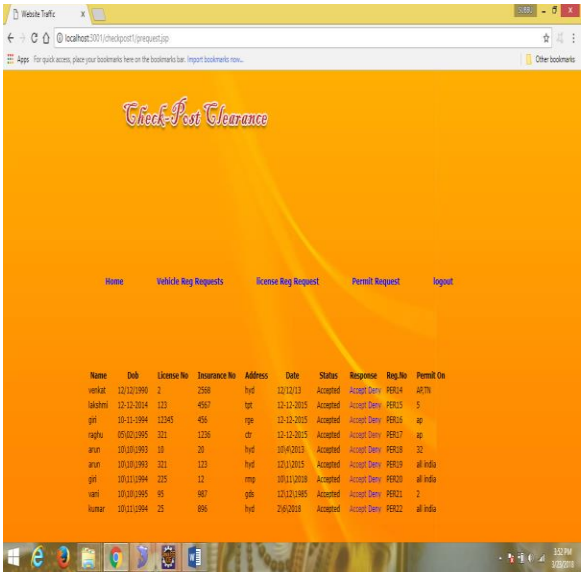
4.VehicleReg Screen



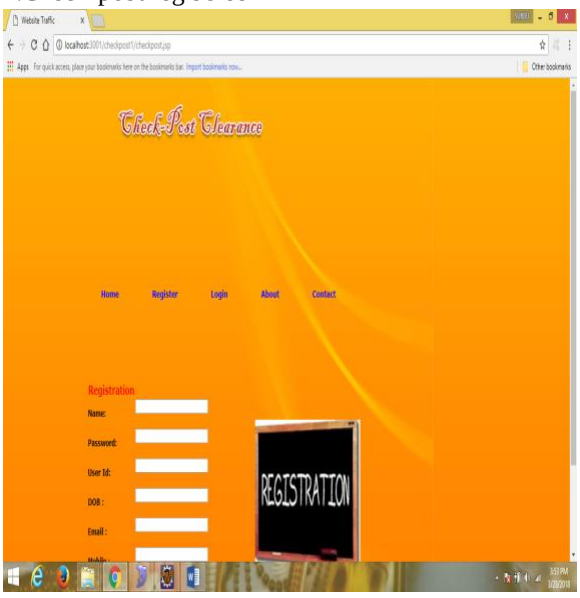
5.Licensereg request



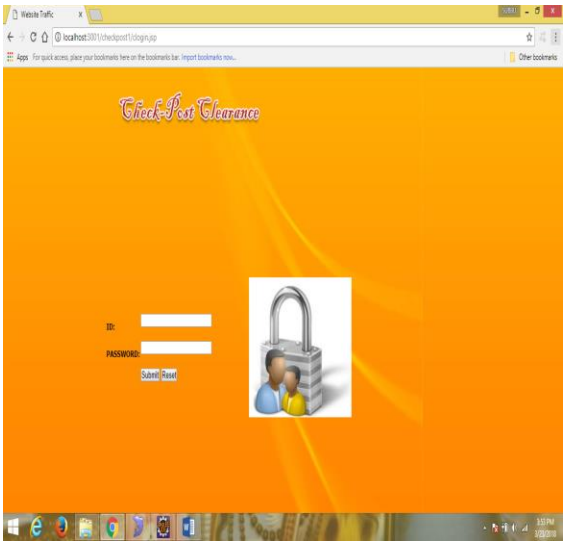
6.PERMIT reg Request Screen



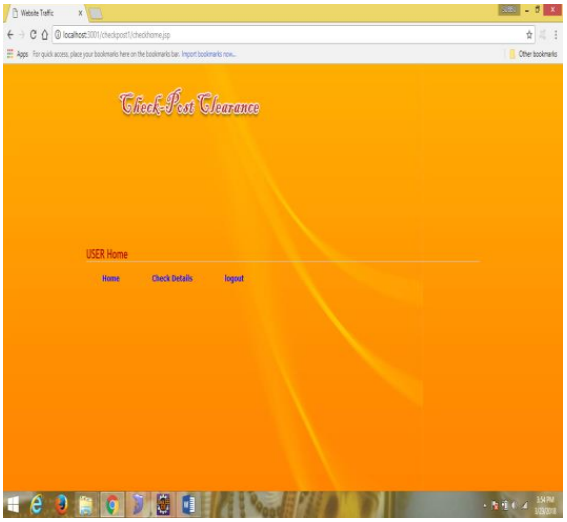
7.Check post reg screen



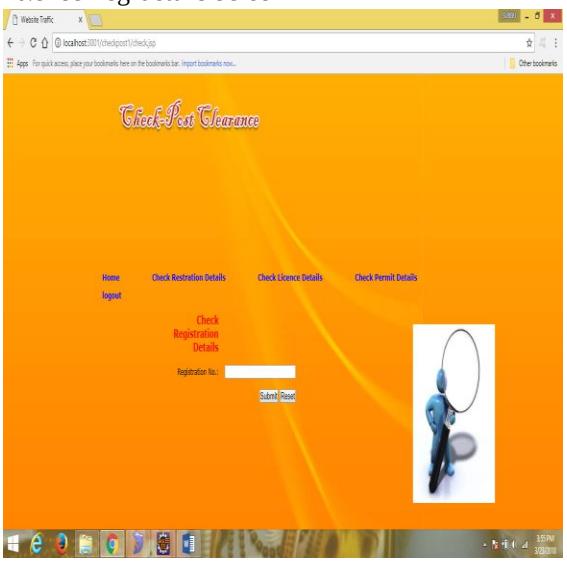
8.chechpost



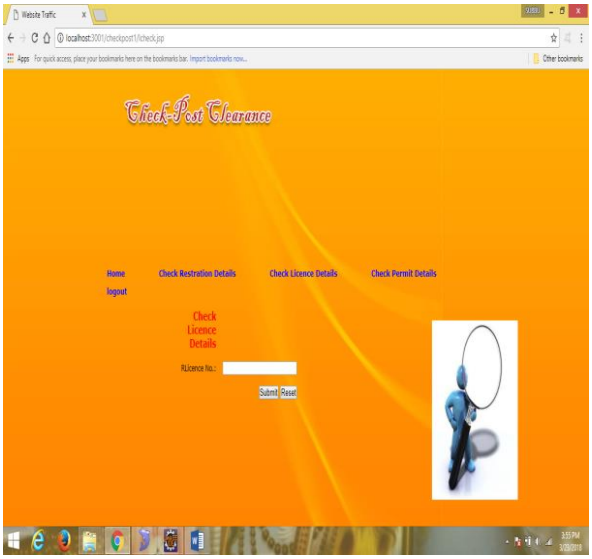
9.check home



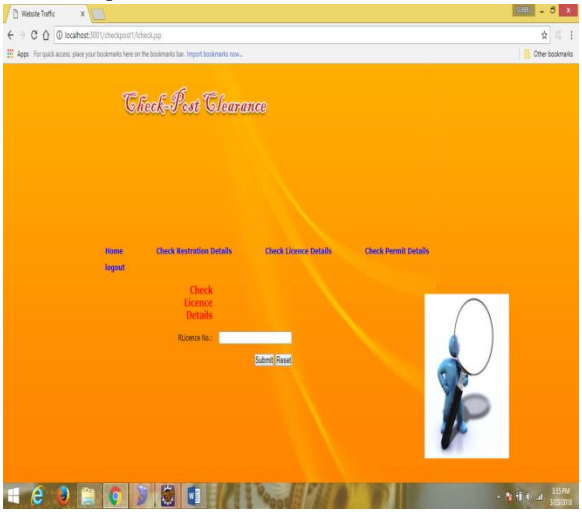
10.chechreg details screen



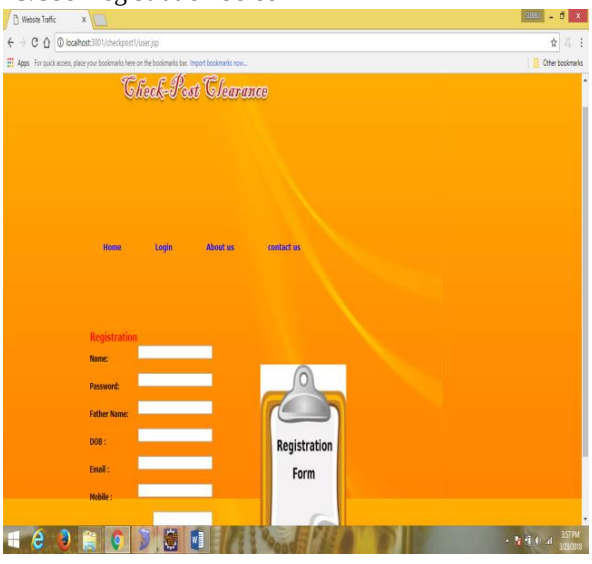
11.checklicenc



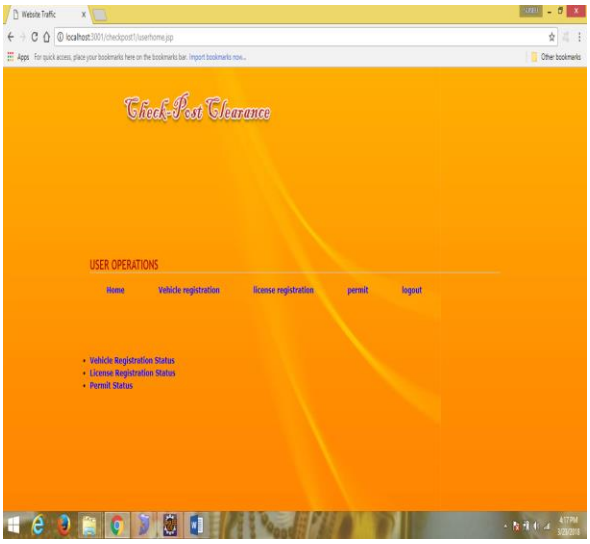
12.chech permit det



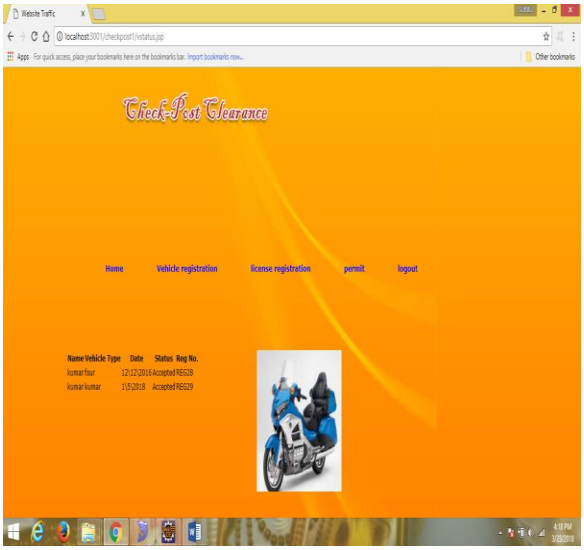
13.User registration screen



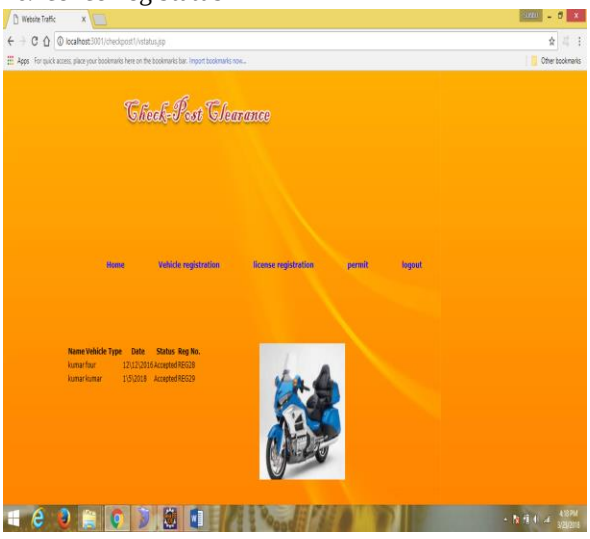
14.user home screen



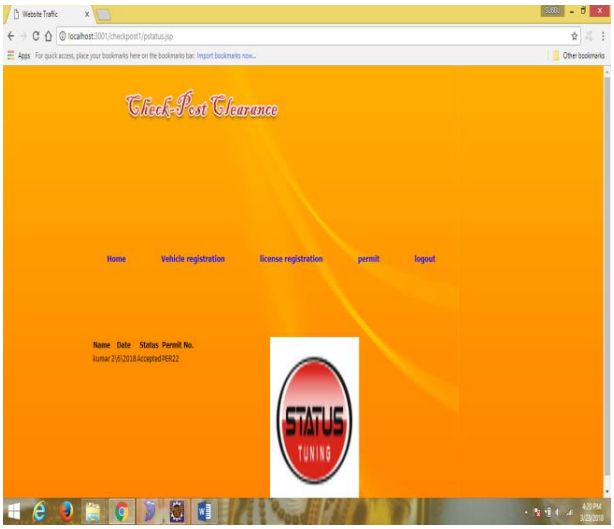
15.vehicle reg status



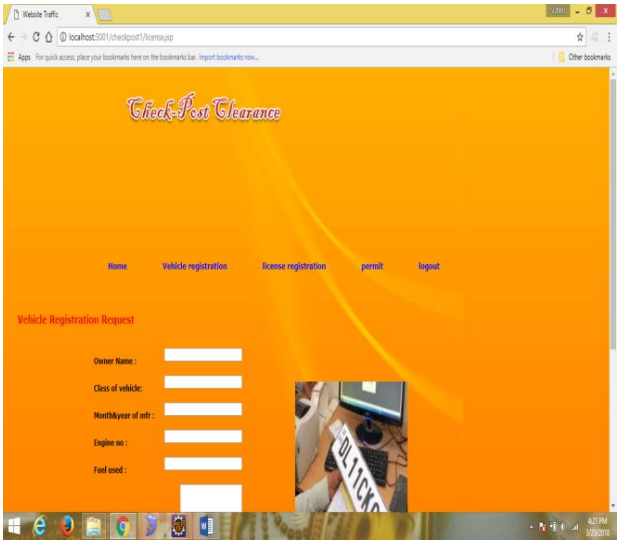
16.licence reg status



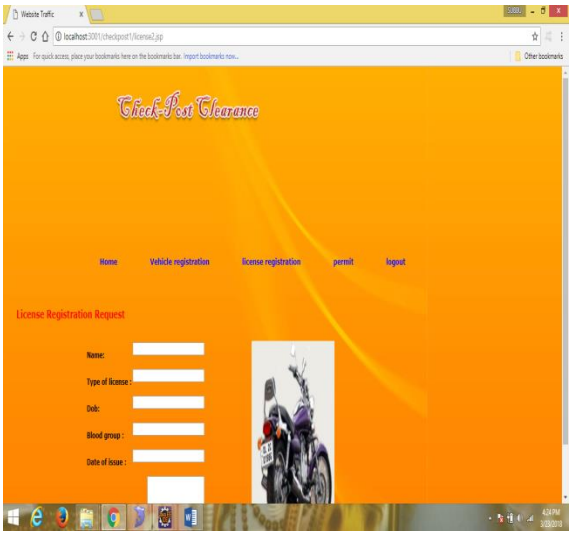
17.permit status screen



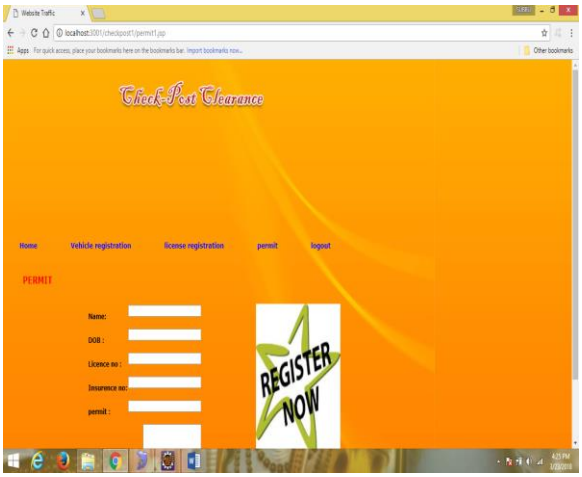
18.vechicle registration request



19.license registration request



20.permit registration request



CONCLUSION

The proposed system will have a system like Integrated check post where the details of each and every vehicle and the respective owner will be maintained centrally. So whenever a vehicle visits a check post the registration number will allow you to know the entire data of particular vehicle / owner. The Registration, Permits and License details will be maintained in the centralized server which the authorities can see according to the access they have been provided. The projects intention is to reduce the man power, work load and the most important constraint "TIME".

REFERENCES

[1] www.microsoft.com
[2] www.wikepedia.org
[3] www.indiamart.com
[4] Chasmita.engineers/products
[5] Search Engine-Google.in
[6] www.aptransport.org