Rajiv Gandhi University of Knowledge Technologies

R.K Valley, Y.S.R Kadapa (Dist)-516330

A
project report
on

Cloud Based Traffic Offence Management System

Submitted by

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Under the guidance of

Ms. S. Rajeswari
(Guest Professor)

Department of Computer Science Engineering

This project report has been submitted in fulfilment of the requirements for the Degree of Bachelor of Technology in software Engineering.

April - 2023

Rajiv Gandhi University of Knowledge Technologies
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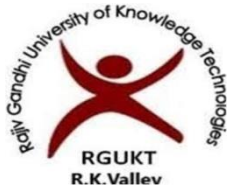

CERTIFICATE

This is to certify that report entitled "Cloud Based Traffic Offence Management System" Submitted B.Rohini (R170144) in partial fulfilment of the requirements of the award of bachelor of technology in computer science engineering is a bona fide work carried by her under the supervision and guidance.

The report has been not submitted previously in part or full to this or any other university or institute for the award of any degree or diploma.

GUIDE	HEAD OF THE DEPARTMENT
Ms. S. Rajeswari	Mr. N. Satyanandaram
Guest Professor	HOD OF CSE

Submitted for the practical examination held on…….

Internal Examiner External Examiner

ACKNOWLEDGEMENT

The satisfaction that accompanies the successful completion of any task would be incomplete without the mention of the people who made it possible and who's constant guidance and encouragement crown all the efforts success.

We would like to express my sincere gratitude to Ms. Rajeswari, my project guide for valuable suggestions and keen interest throughout the progress of our project.

We are grateful to Mr. N. Satyanandaram HOD CSE, for providing excellent computing facilities and congenial atmosphere for progressing our project.

At the outset, we would like to thank Rajiv Gandhi University of Knowledge Technologies (RGUKT), for providing all the necessary resources and support for the successful completion of my course work.

DECLARATION

We hereby declare that this report entitled “Cloud based Traffic offence management system” Submitted by us under the guidance and supervision of Ms .S. Rajeswari, is a bona fide work. We also declare that it has not been of Submitted previously in part or in full to this University or other institution for the award of any degree or diploma.

Date: 24-04-2023
Place: - RK Valley

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ABSTRACT

"Traffic Ofence Management System is an web application which helps the traffic police as well as the police by means of time and efficiency. With the increasing importance of corruption has become major factor. Existing system makes the use of pen and paper that is a challan that are given to the offender on breaking the traffic rules. As the system consist of paperwork the papers are mostly gets damaged or tempered.

The proposed this web application is provided to traffic police to create online challan with vehicle owner and vehicle photo as proof, user side receive the challan receipt with fine details.

In this application user can to see about the penalty imposed on the owner of the vehicle. By doing this the tendency of getting away without being penalized will reduce and subsequently the traffic violation will be mitigated without industrious use of human resources.

PURPOSE

➢ To make the public aware about the traffic rules and regulations.

➢ To help the police to make the cases fast and effective.

➢ To create and view the challan details through the single interface.

INTRODUCTION

Traffic Offence Management System is a easy to use and has pleasant user interface. It requires system user's credentials in order for the management to access the data and the functionalities of the project

This web application effectively manages and handles all the functioning of a traffic squad. The software system can store the data of various filed challan and detail of offender and traffic police.

In Traffic Offence Management System we use PHP and MySQL Database. This project filed the challan online by the traffic police. Traffic Offence Management System has three module i.e. admin, traffic police and user or offender.

Advantages:

- It helps the traffic police to handle and manage offender challans data.
- It helps vehicle owner to see filed challan.
- It brings transparency and efficiency in the working of traffic squad.
- It is user friendly.
- Central platform to report traffic issues – Saves time as paper work is reduced.

Disadvantages:

- The system can only handle single traffic offence.
- Internet connectivity or wireless network is required to transmit the data

Applications:

- To be used in traffic offence

SCOPE

The aim of 'Traffic Offence Management System' is to automate its existing manual system by the help of computerized equipment and full-fledge computer software, fulfilling their requirements so that their valuable date can be stored for a longer period with easy accessing and manipulation of the same. Basically the project describes how to handle good performance and provide better services to clients. This project can lead to error free, secure, reliable and fast management system. This system will help the organization in better utilization of resources.

The Traffic Offence Management System has been designed to override the problem of existing manual system. This web application is supported to eliminate and in some case reduce the hardship faced by manual system. The application is reduced as much as possible to avoid errors while entering the data. Its also provide message while entering invalid data. No formal knowledge is required for the user to operate this system. Overall we said that Traffic Squad Management System is user friendly

.

In Traffic Offence Management System we use PHP and MySQL Database. Traffic Offence System has three module i.e.

1. Admin
2. Traffic Police
3. Use

Admin:

1. Dashboard: In this section, admin can see all detail in brief like Total traffic police and total police station.
2. Police Station: In this section, admin can manage police station (Add/Update/Delete).
3. Traffic Police: In this section, admin can manage the traffic police (Add/Update/Delete).
4. Search Challan: In this section admin, can search challn of offender with help of challan number.
5. Reports: In this section admin can view how much challan has been filed by traffic police in particular periods.

Admin can also update his profile, change the password and recover the password.

Traffic Police:

1. Dashboard: In this section, police can see all detail in brief like Total new challan, total pending challan, total completed challan and total.
2. E-Challan: In this section, traffic police file the challan against offender.
3. Challan Status: In this section, traffic police view the challan which is pain which not.
4. Challan Report : In this section traffic police can view how much challan has been filed by him/her in particular periods.
5. Search Challan: In this section traffic police, can search challan of offender with help of challan number.

Traffic police can also update his profile, change the password and recover the password.

User (Offender):

1. Dashboard: It is welcome page for users.
2. Challan History: In this section, user can view his/her challan and also pay the challan fine amount which is imposed by traffic.
3. Search: In this section, user can search his/her challan-by-challan number.

User can also update his profile, change the password and recover the password

REQUIREMENT SPECIFICATIONS

✓ Any Version of browser after Mozilla Firefox 4.0, Internet Explorer 6.0,chrome

Hardware requirements:

✓ Any processor after Pentium 4.
✓ Any version of Windows XP or later.
✓ Processor speed: 2.0 GHz
✓ RAM : 1GB
✓ Hard disk: 40GB to 80 GB

Software requirements:

✓ Database : MySQL
✓ Server : Apache
✓ Frontend : HTML
✓ Scripting Language : JavaScript
✓ IDE : Sublime
✓ Technology : PHP

EXISTING SYSTEM

Existing process of Traffic Offence is very time-consuming process. Traffic management is a serious issue confronted by the city. The RTO employees having lot of work burden of making penalty etc. which required lot of paper work. As a result, people cannot get things done in right time

PROPOSED SYSTEM

- Reduces corruption
- Proof of pay and receipt generated
- Proof of traffic violation recorded as image
- Admin monitor the all-online Challa

SYSTEM AND DATABASE DESIGN

SYSTEM:

Design is the first step in the development phase for any techniques and principles for the purpose of defining a device, a process or system in sufficient detail to permit its physical realization.

Once the software requirements have been analyzed and specified the software design involves three technical activities - design, coding, implementation and testing that are required to build and verify the software.

The design activities are of main importance in this phase, because in this activity, decisions ultimately affecting the success of the software implementation and its ease of maintenance are made. These decisions have the final bearing upon reliability and maintainability of the system.

Design is the only way to accurately translate the customer's requirements into finished software or a system. Design is the place where quality is fostered in development. Software design is a process through which requirements are translated into a representation of software. Software design is conducted in two steps. Preliminary design is concerned with the transformation of requirements into data.

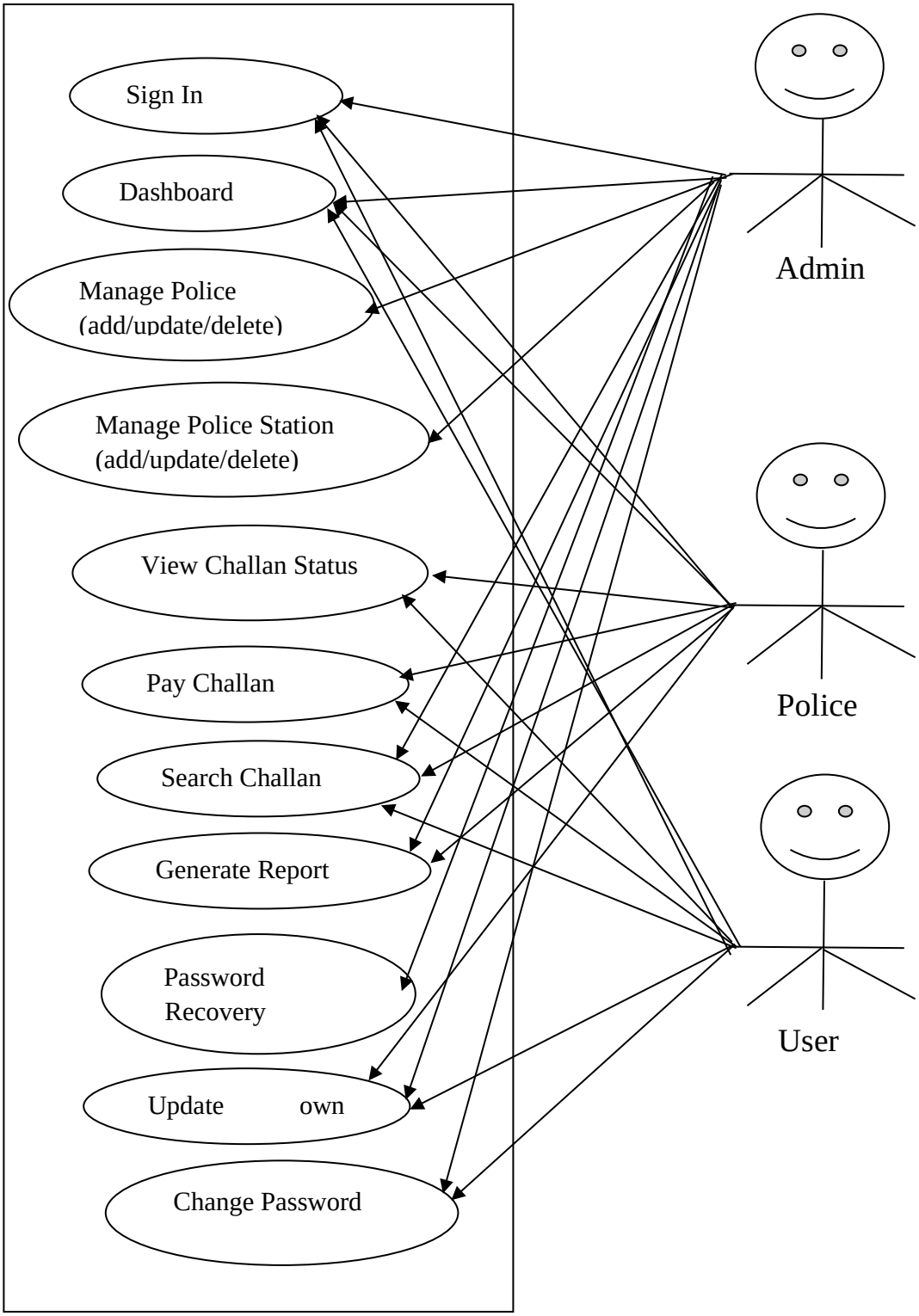
DATABASE:

The data in the system has to be stored and retrieved from database. Designing the database is part of system design. Data elements and data structures to be stored have been identified at analysis stage. They are structured and put together to design the data storage and retrieval system.

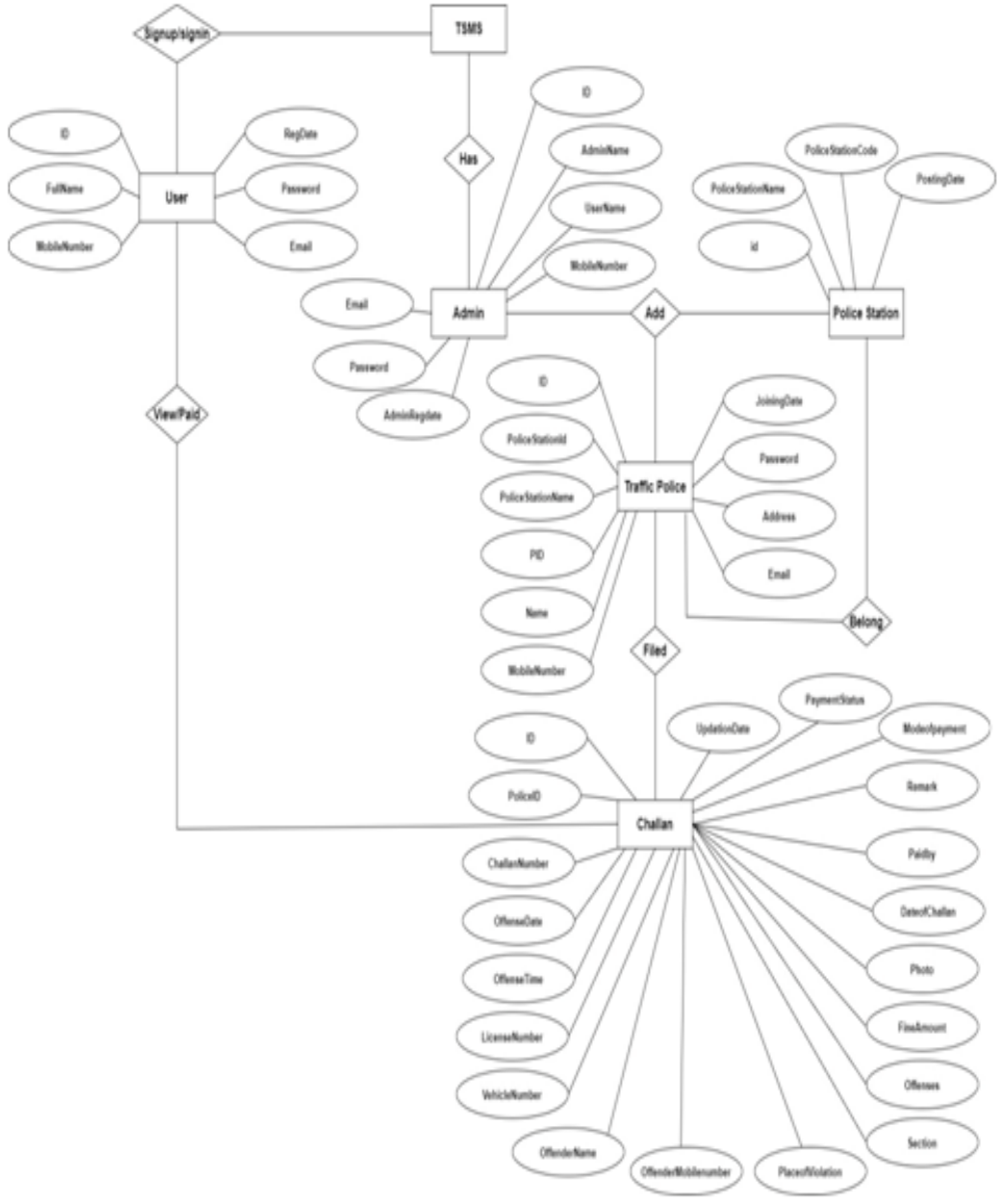
A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability. This ensures minimizing data storage required, minimizing chances of data inconsistencies and optimizing for updates. The MySQL database has been chosen for developing the relevant databases.

Unified Modelling Language Diagrams (UML):

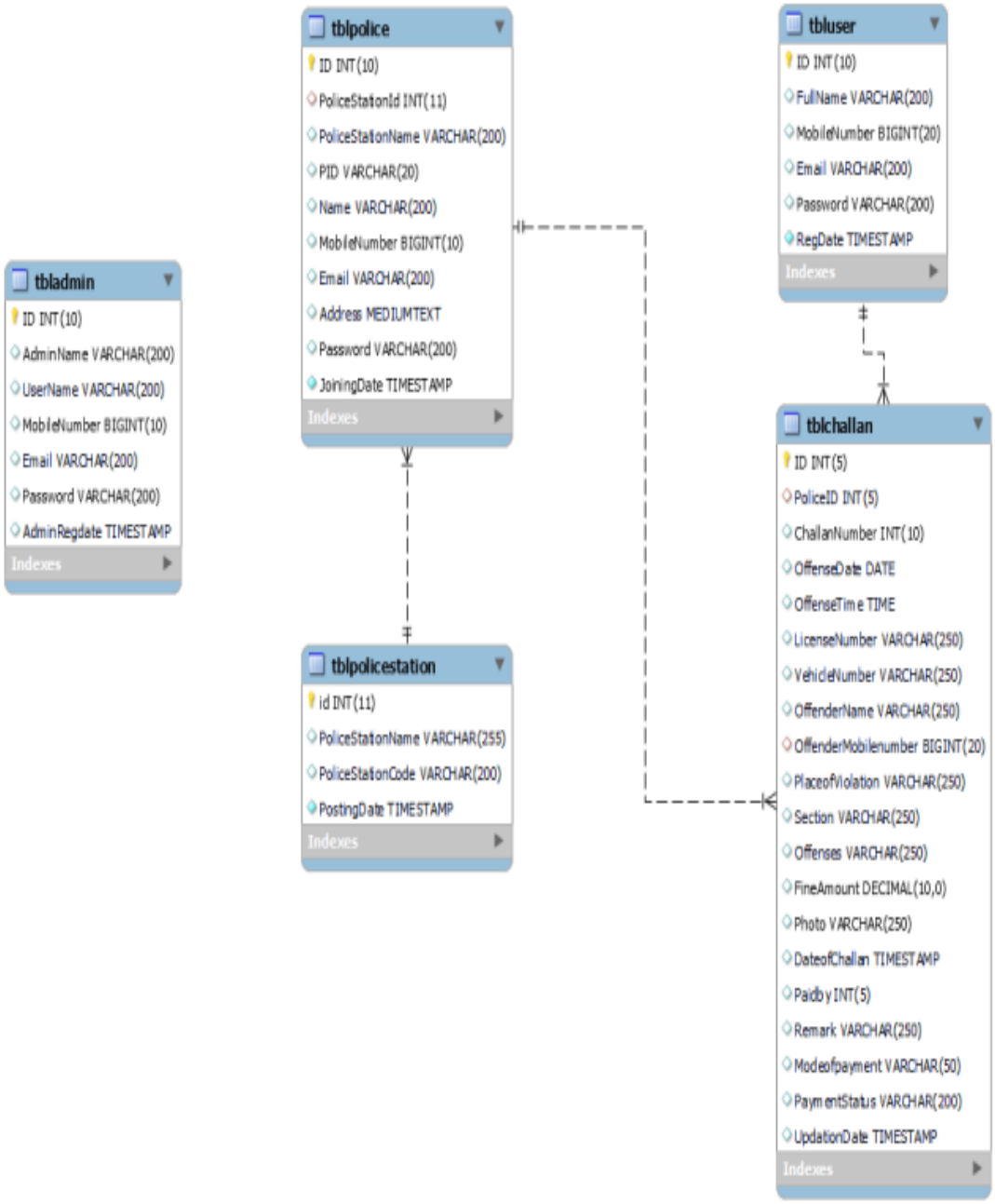
Use Case Diagram:



ENTITY-RELATIONSHIP Diagrams



Class Diagram:



SYSTEM TESTING

SOFTWARE TESTING TECHNIQUES:

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, designing and coding.

TESTING OBJECTIVES:

1. Testing is process of executing a program with the intent of finding an error.

2. A good test case design is one that has a probability of finding an as yet undiscovered error.

3. A successful test is one that uncovers an as yet undiscovered error.

These above objectives imply a dramatic change in view port.
Testing cannot show the absence of defects, it can only show that software errors are present.

There are three types of testing strategies

1. Unit test
2. Integration test
3. Performance test

Unit Testing:

Unit testing focuses verification efforts on the smallest unit of software design module. The unit test is always white box oriented. The tests that occur as part of unit testing are testing the module interface, examining the local data structures, testing the boundary conditions, execution all the independent paths and testing error-handling paths.

Integration Testing:

Integration testing is a systematic technique or construction the program structure while at the same time conducting tests to uncover errors associated with interfacing. Scope of testing summarizes the specific functional, performance, and internal design characteristics that are to be tested. It employs top-down testing and bottom-up testing methods for this case.

Performance Testing:

Timing for both read and update transactions should be gathered to determine whether system functions are being performed in an acceptable timeframe

FUNCTIONAL TESTING

Table 1: - Home page test case report

S.no	Test Case Name	Description	Expected output	Actual Output	Final output
1	Run on Public IP address	Running the project on Public IP Address	Home page	Home page	Pass
2	Sign in	Sign in using admin credentials	Admin signup page appears	Admin signup page appears	Pass
3	Sign in	Sign in using police credentials	Police signup page appears	Police signup page appears	Pass
4	Sign in	Sign in using user credentials	User signup page appears	User signup page appears	Pass

Table 2: - Police test case report

S. No	Test case name	Test case description	Expected result	Actual result	Final result
1	E-Challan	Fill E-Challan or generate E-challan	A form to fill Details appears	A form to fill Details appears	Pass
2	Challan Search	Search for New Challan	List of challans are displayed	List of challans are displayed	Pass
3	Logout	Police should be able to Logout	Logout option displayed and logging out	Logout option displayed and logging out	Pass
4	New Challan	See how many New challans are there	List of new challans are displayed	List of new challans are displayed	Pass
5	Pending Challans	See Pending challans	List of pending challans are displayed	List of pending challans are displayed	Pass

Table 3: - Administrator test case report

S. No	Test case name	Test case description	Expected output	Actual output	Final output
1	Add Police Station	Adding new Police Station	Deatils of new police station should be added	Deatils of new police station should be added	Pass
2	View Police Staation	View the details of the police station	Deatils of new police sation should be shown	Deatils of new police station should be shown	Pass
3	Add Police	Adding new Police details	Deatils of new police should be added	Deatils of new police should be added	Pass
4	View Police	Viewing New Police Details	Deatils of new police should be shown	Deatils of new police should be added	Pass
5	Search Challans	Challans displayed for specified duration	Deatils of Challans are displayed	Deatils of Challans are displayed	Pass
6	Update Profile	Adding new details to profile	Deatils shpuld be updated	Deatils shpuld be updated	Pass
7	Change Password	Password to be changed by Admin	Password should be chaned	Password should be chaned	Pass
8	Log Out	Admin Log out of the page	Admin should be able to logout	Admin should be able to logout	Pass

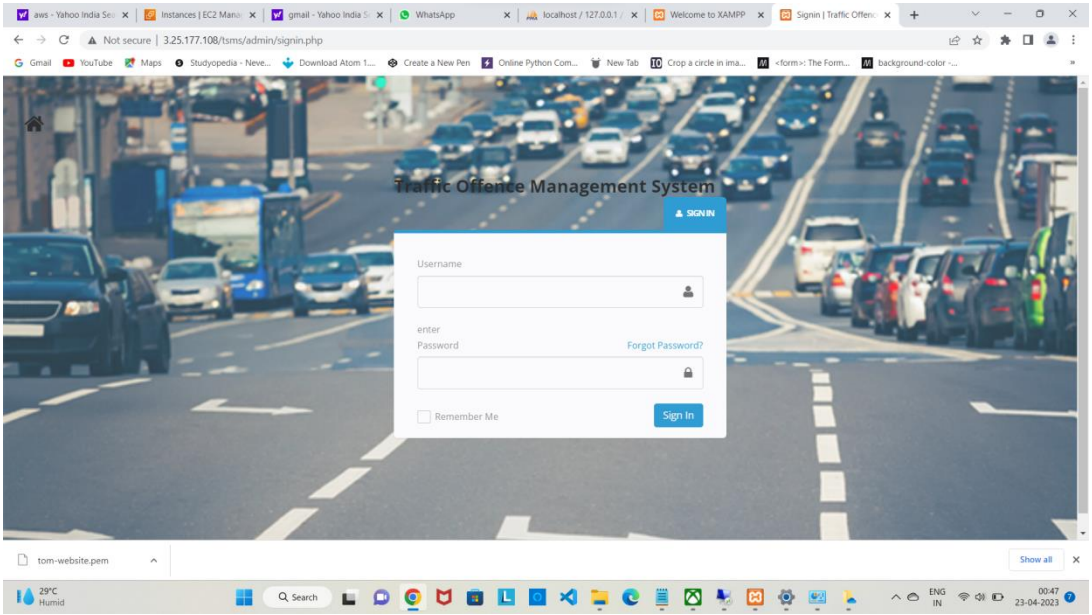
Table 3: - User test case report

S. No	Test case name	Test case description	Expected result	Actual result	Final result
1	Challan Search	User tries to check challans if he had any	Challans issued on user name displayed	Challans issued on user's name is displayed if he had any	pass
2	User Logout	Logging out from website	User Logging out	User Logging out	pass

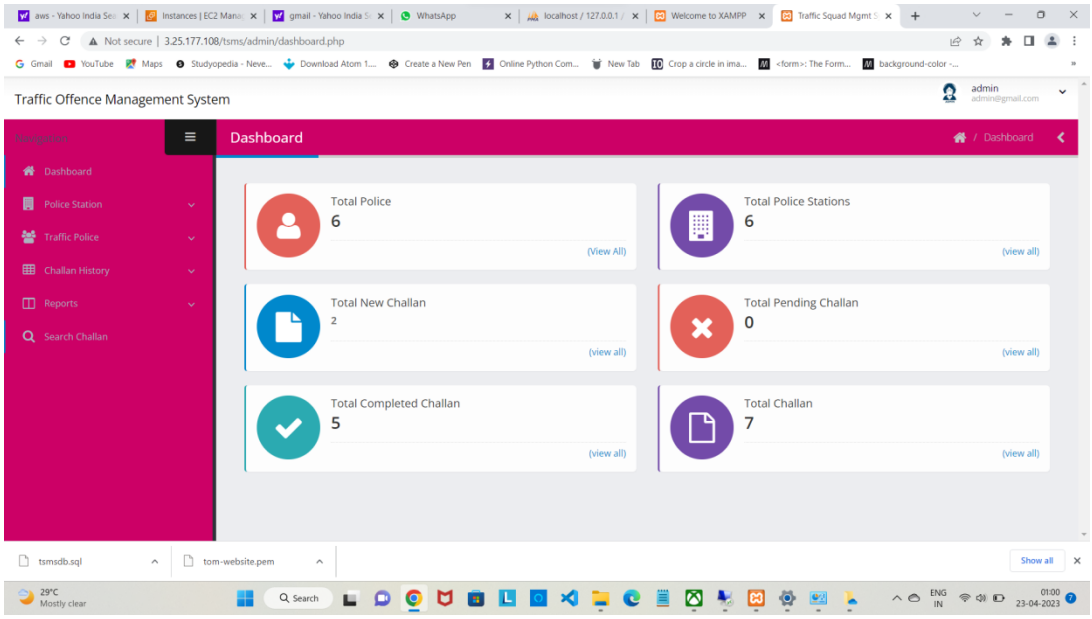
Output:

Home Page:

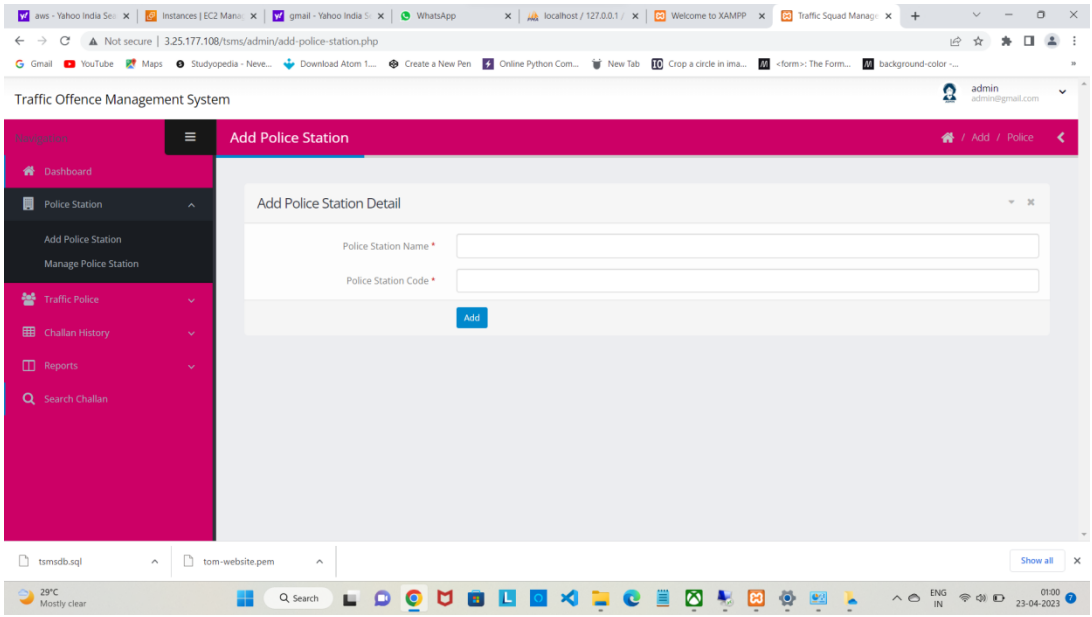
Admin Login:



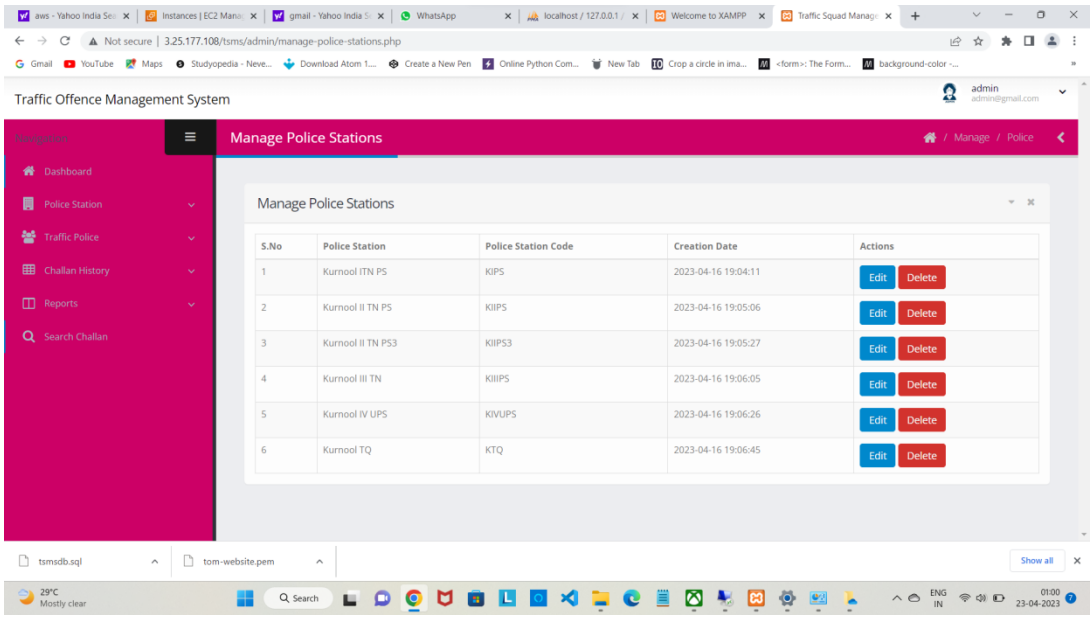
Admin Dashboard:



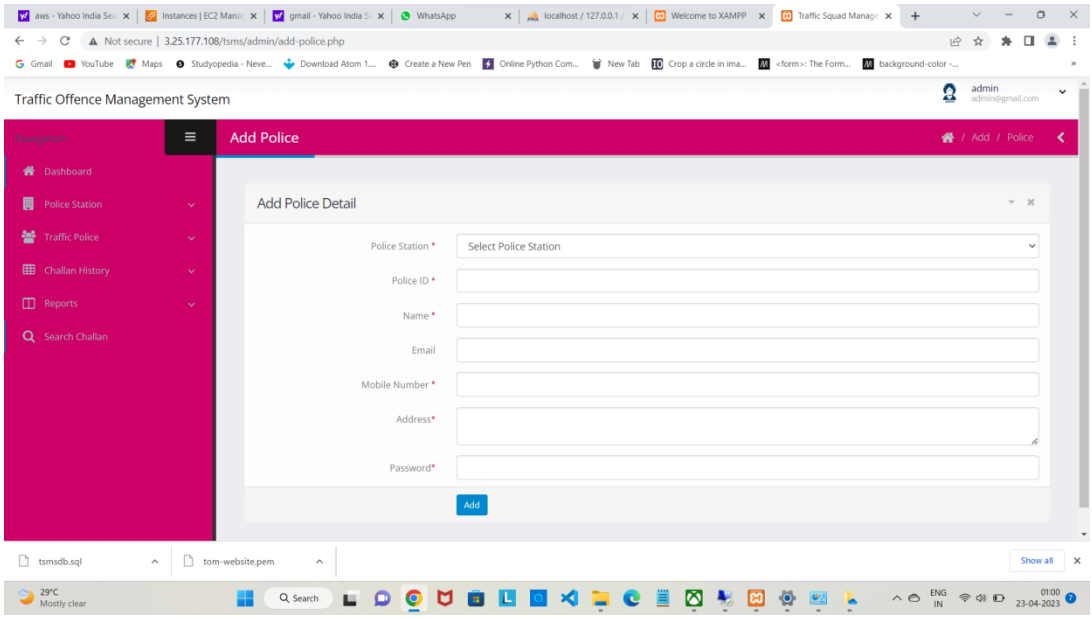
Add Police Station:



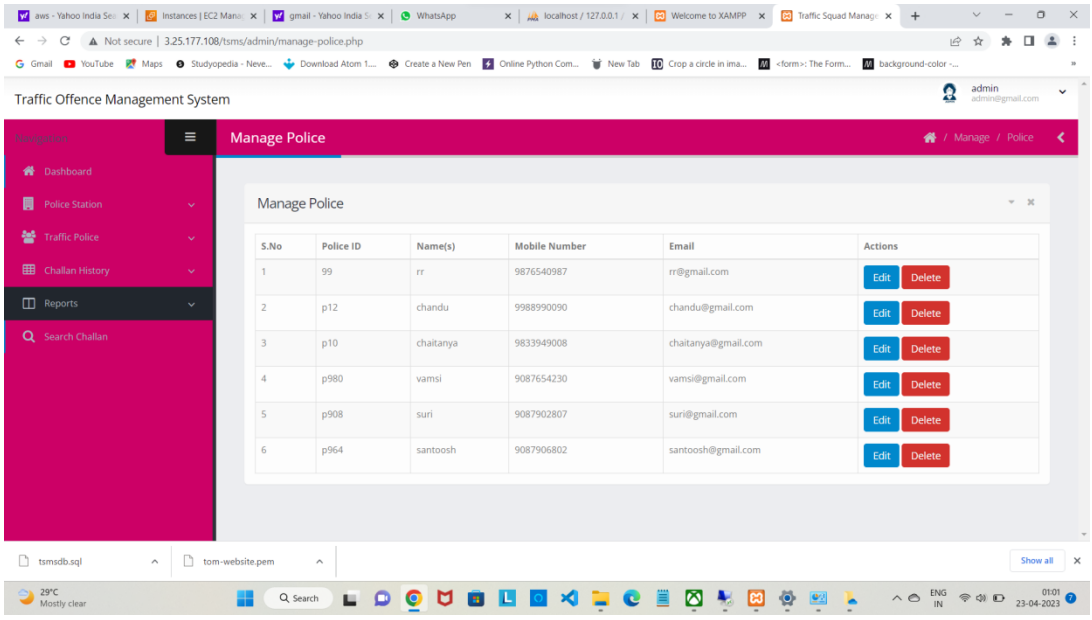
Manage Police Station:



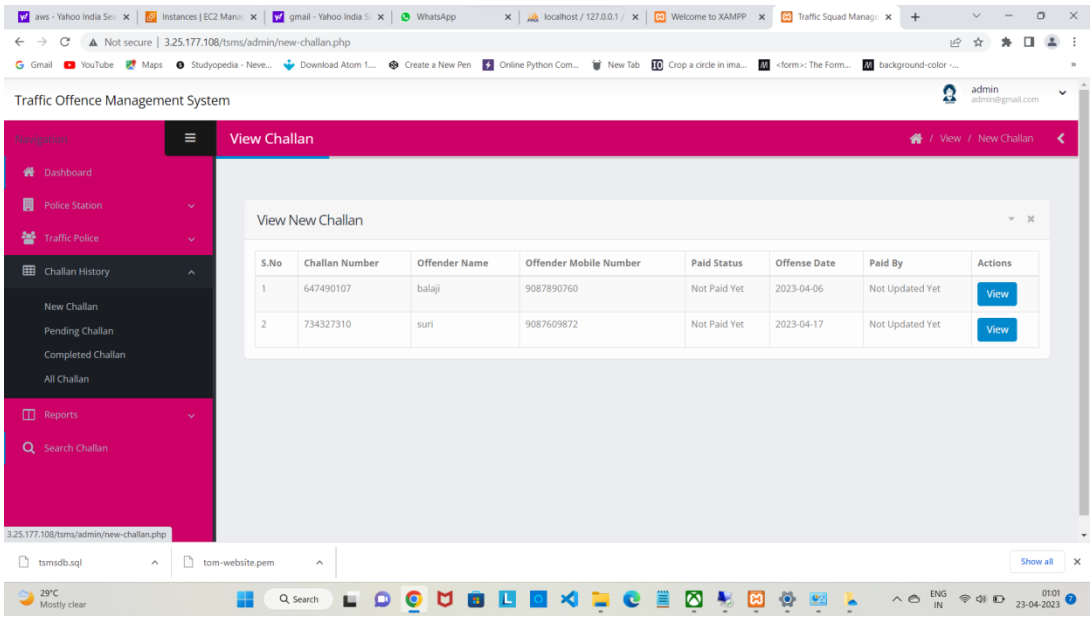
Add Traffic Police:



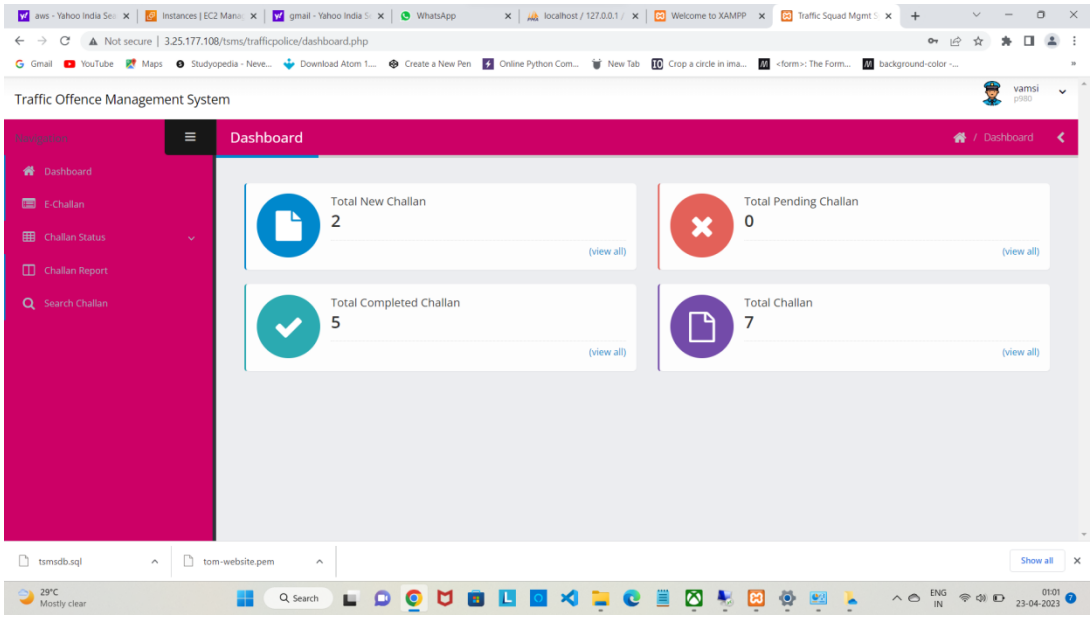
Manage Traffic Police:



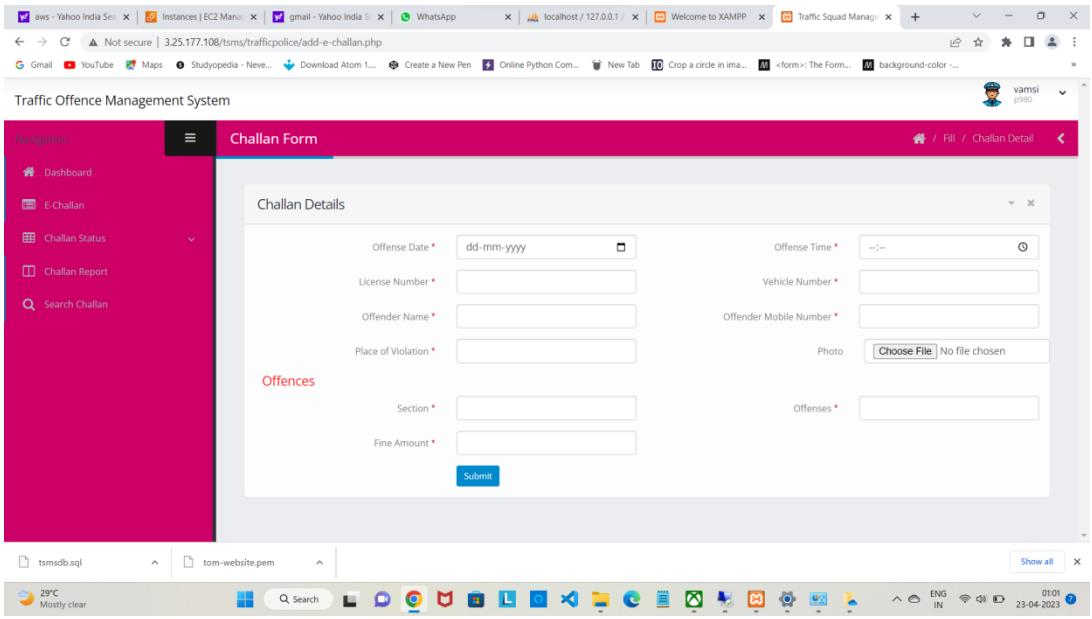
New Challan:



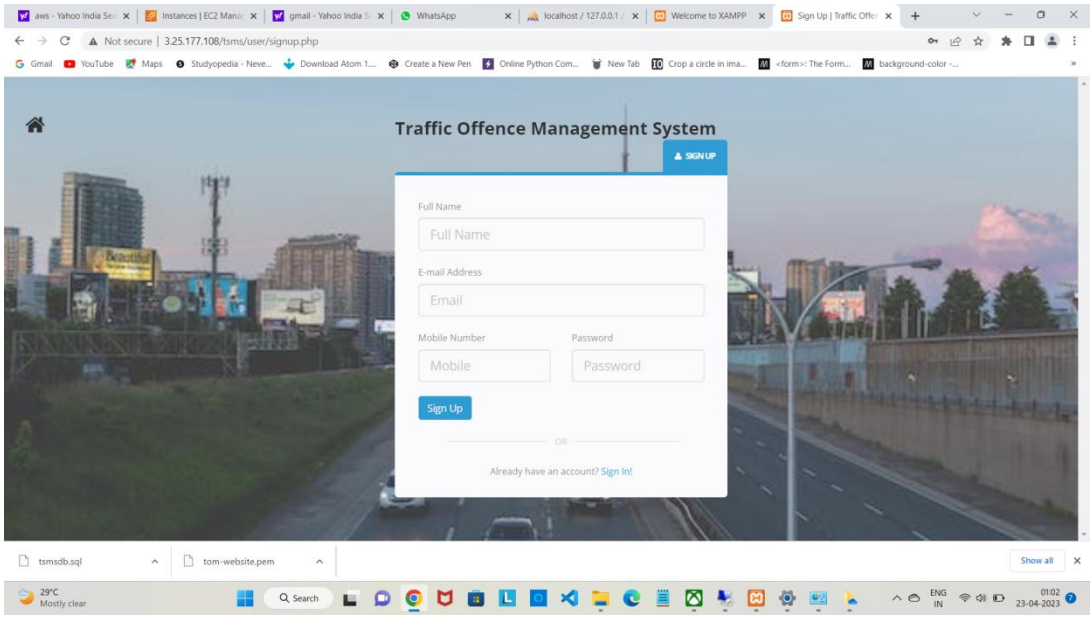
Police Dashboard:



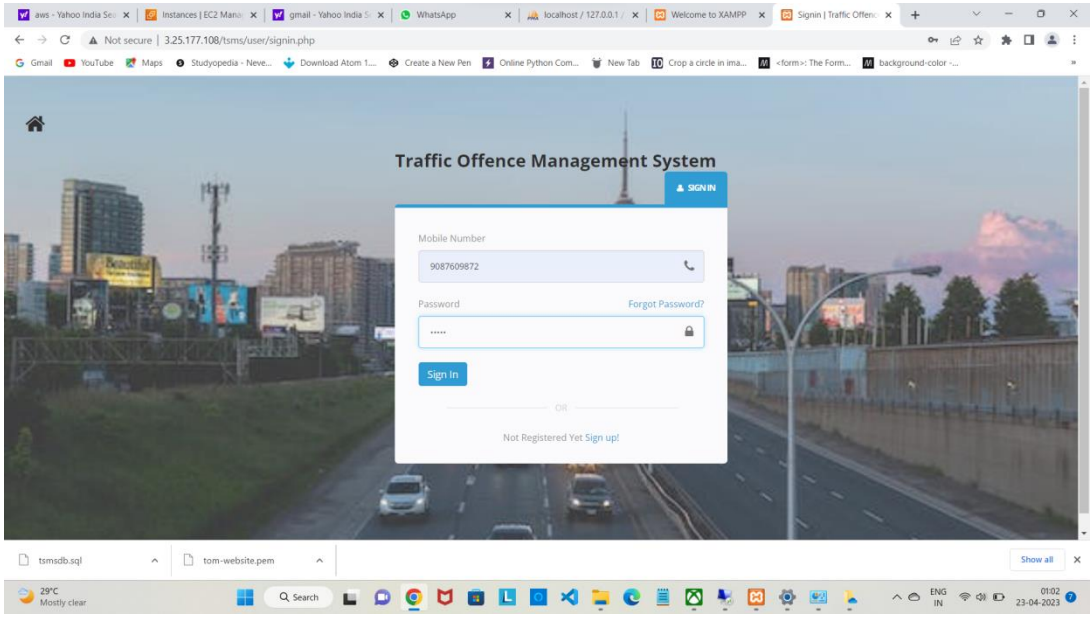
Challan Form:



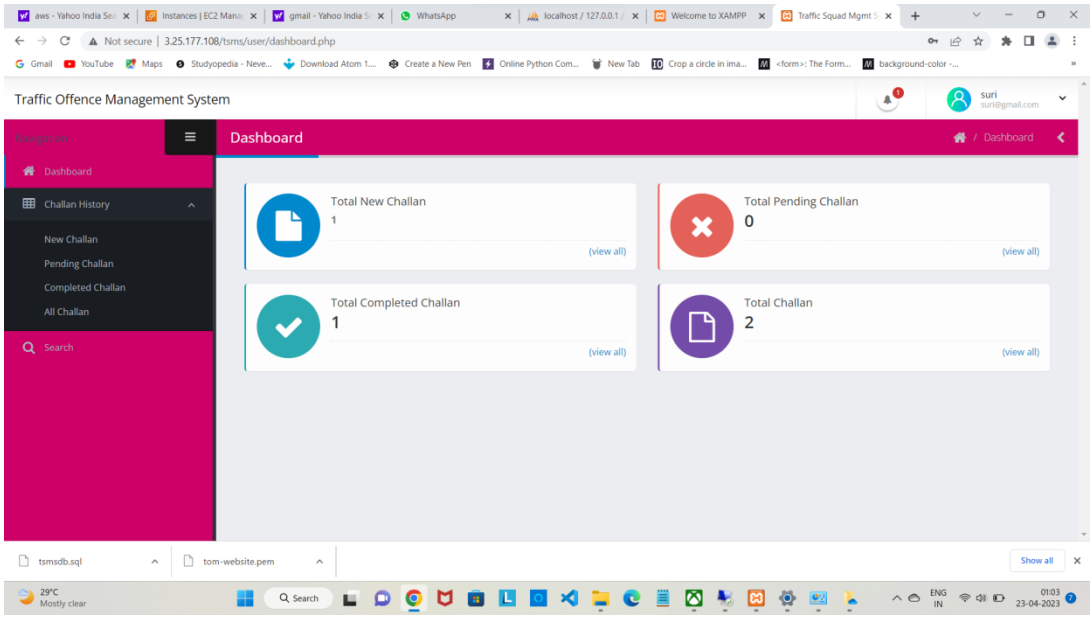
User Signup:



User Login:



User Dashboard:



Conclusion:

The project titled as Traffic Offence Management System was deeply studied and analyzed to design the code and implement. It was done under the guidance of the experienced project guide. All the current requirements and possibilities have been taken care during the project time.

The Application was designed in such a way that future changes can be done easily. The following conclusions can be deduced from the development of the project.

- Automation of the entire system improves the productivity.
- It provides a friendly graphical user interface which proves to be better when compared to the existing system
- It gives appropriate access to the authorized users depending on their permissions.
- It effectively overcomes the delay in communications.
- Updating of information becomes so easier.
- System security, data security and reliability are the striking features.
- The System has adequate scope for modification in future if it is necessary.

References:

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➢ https://www.w3schools.com/php/default.asp

➢ https://www.sitepoint.com/php/

➢ https://www.php.net/

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➢ https://www.mysql.com/

➢ http://www.mysqltutorial.org

For XAMPP:

➢ https://www.apachefriends.org/download.html