

# **STUDENT'S STUDY PROJECT REPORT**

## **ON TOLL GATE**



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## CERTIFICATE

This is to certify that the Project Report entitled "Toll Gate ",submitted to the Kakatiya Government College, Hanumakonda. Department of Computer Science & Applications was carried out by the following students under my guidance.

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## ABSTRACT

Toll gate payment system have been of great assistance in lessening the over congestion that has become a part of the metropolitan cities these days. It is one of the uncomplicated ways to manage the great rum of traffic. The travelers passing through this mode of transport, carried by their transport that allows them to be aware of the account of the money that has been paid and the money left in the tag.

It relieves the traveler of the burden of waiting in the queue to make the toll payment, which decreases the fuel-consumption and also taking cash with them can be avoided. Our system avoids this type of problems, user he gate pass from online so user doesn't need to wait the tollgate. In this system users will be having the separate wallet to make payments and transactions. So that they can make their toll gate pass payment from one wallet to another through online this makes their trip more easy and convenient.

### Objectives

In heavy traffic area the vehicle need to stop for 2 minutes pay their toll fee and move. During bad weather conditions the driver will find it difficult to use rear mirror for identifying the nearby vehicles.

### Software Requirements: -

Front End: HTML5, CSS3, Bootstrap

Back End: PHP, MYSQL

Control End: Angular Java Script

### Android Tools:

IDE: android Studio

Android Emulator

xampp-win32-5.5.19-0-VC11

### PHP Tools:

xampp-win32-5.5.19-0-VC11

### Hardware Requirements:

Processor : Intel 3

Installed memory (RAM) : 4 GB

Hard Disk : 500 GB

Operating System : Windows 7,8,10 - 64 bit

### **Existing Solution:**

- Its manual process for earlier system.
- Its more time consume for all process.
- Need for more resources.
- There is chance to lose record details.

### **Proposed Solution:**

- The propose system provides not only the auto toll system but also updates all the vehicle information and stop the vehicle unique ID is not matched with vehicle details
- This system is always connected to a centralized server such that any theft vehicle can be trapped easily if its unique ID is registered.
- User can use the wallet money option including this system. They can select the monthly payment or regular payment options also available in this system.

### **System Modules:**

#### **Admin:**

- Login
- Manage User&Toll pass
- Manage Toll login
- Approve toll pass
- Generate QR Code
- Create Toll details

**User:**

- Register
- Login
- Add Money - eWallet
- Buy Toll eTicket
- Apply New toll pass
- Renewal toll pass
- Apply Toll pass
- Get QR Code for Toll pass

**Toll Gate User :**

- Login
- Scan QR
- Verify toll pass ID
- Verify Toll ticket
- Update toll location

## **MODULES DESCRIPTION:**

### **ADMIN**

- **Login**

In login module the admin can login to the application with the master login details. Admin can maintain the all user details.

- **Manage User Toll pass**

An admin can manage the all toll gate user details like toll gate user's unique id registration, their name, and other personal details. They are maintained by the admin. Then user can use only their toll gate pass.

- **Manage Toll login**

An admin can manage the Toll gate login details like every conductor has one unique login and password details. They are maintained by admin with their personal details also.

- **Approve toll pass**

A user can apply the toll gate pass admin can receive the all user's toll gate details with their personal details. Then admin can check all the details it will get correct information means admin will approve the toll gate pass.

- **Generate QR Code**

Admin can check the user toll gate pass details then approve for toll gate pass. Then admin can generate QR code for every user. User can use for payment in the tollgate.

- **Create Toll details**

An admin can create details for toll gate like toll gate located areas, toll gate shifting timing, cost details, every toll gate details, how many gates are open in the every located area. And then admin will upload some toll gate basic details also.

## **USER**

- **Register**

User's main function of our proposed system is registration, in order to register with the unique application details such as name; password, email, place and time are required.

- **Login**

The main activities in the application are the user login page for user. The other modules are followed by this login page. This module records only user and password of the user.

- **Add Money - eWallet**

User can create an account for toll gate pass then user can login in the page or application. If the user can pay the amount for toll gate user will upload/ add the amount in e-wallet then user can easily to pay the amount for toll gate.

E-wallet is a type of electronic card which is used for transactions made online through a computer or a smartphone. Its utility is same as a credit or debit card. An E-wallet needs to be linked with the individual's bank account to make payments.

- **Buy Toll eTicket**

Toll e-ticketing system, made automatic is the approach used for the vehicle when it reaches the toll plaza; this is detected by using a Sensor. RFID (QR code) tags are used to read each vehicle with the help of RFID (QR code) reader.

- **Apply New toll pass**

User can apply the new pass for toll gate. It is necessary for state to state travels. So that user can apply for the pass they will submit some government id proofs and then, admin will collect some personal details like user name, mobile number, address, their current city and state etc.,

- **Renewal toll pass**

Login into the Fastag Bank portal with your credentials. Click on the Fastag monthly pass link. Here you can also check for the transactions. Click on the link activate monthly pass for which the pass will be recharge/renewed from the preferred dates.

- **Apply Toll pass**

User once registers a new tollgate pass. Then the user can receive the apply details. User can apply toll gate pass for complete registration processes. Then admin can check the details after user will receive tollgate pass.

- **Get QR Code for Toll pass**

User once get the new toll gate pass details admin will be given the QR code for every user. User can use for amount payable in the tollgate it will easily to handle the payment section.

## **CONDUCTOR**

- **Login**

The main activities in the application are the user login page for conductor. The other modules are followed by this login page. This module records only conductor and password of the conductor.

- **Scan QR**

In order to overcome the major issues of vehicle congestion and time consumption, the QR scanner is used. The administrator verifies the QR code with the help of QR scanner. It reduces the fuel utilization by reducing the waiting time. This application makes toll plaza payment more convenient for the public use.

- **Verify toll pass ID**

A conductor will verify the every user toll gate ID card at the tollgate plaza. Conductor will approve for the payment then user will pay and move on the tollgate plaza.

- **Verify Toll ticket**

A conductor will verify the toll ticket from the every user at the time of tollgate plaza. If the toll ticket once verified means conductor will allow travel.

- **Update toll location**

A conductor will update the location if any changes for travelling location. Then only conductor will update the toll location.



**STUDENT'S STUDY PROJECT REPORT**

**ON**

**TRAFFIC SQUAD**



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## **ABSTRACT**

Traffic Squad is an app which helps the 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 android or web application is provided to traffic police to create online FIR with vehicle owner and vehicle photo as proof, user side receive the fir 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.

## 1.1 Objectives

- 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.

## 1.2 System Specifications

### Hardware Requirements:-

Processor : Intel 3

Installed memory (RAM) : 4 GB

Hard Disk : 500 GB

Operating System : Windows 7,8,10 - 64 bit

### Software Requirements: -

Front End: HTML5, CSS3, Bootstrap

Back End: PHP, MYSQL

Control End: Angular Java Script

### Android Tools:

Android Emulator

xampp-win32-5.5.19-0-VC11

Android Studio

### PHP Tools:

xampp-win32-5.5.19-0-VC11

## **Existing Solution:**

Existing process of Traffic Squad 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.

## **Disadvantages**

Roads are the major connective mode in any country and often characterized by traffic congestion due to lack of traffic management. It may be due to the large population, lack of technology and violation did by the people, among them, traffic rule violation is a major issue. It is very difficult for the Authorities to check there is a traffic rule violation or not, which leads to miserable situations where it becomes dangerous not even for the drivers but pedestrians as well. From recent research, it is found that due to this in India the number of accidents per 1000 vehicles it is 35. To overcome these violations, technology can play a major part hence in this work android and web-based methods is focused.

## **Proposed System:**

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

## **System Modules:**

### **User**

- Register
- Login
- View Challan
- View Case Filed
- (Google map link)
- (Should be able to see the police updates of traffic)

### **Police**

- Login
- Rules
- Create Case
  - Upload proof photos
- (Uploading bike number and person photo)
- Manage
  - Live information of traffic report - New updates
- Google map traffic - Link

### **Admin**

- Manage Police Login
- (Creating area ,street,city)
- View Daily Report

## 3.1 Module Description

### User

- Register
  - User needs to register them to enter into the system using unique login credentials.
- Login
  - User can login to the system with their registered details.
- View Challan
  - User can view the challan details once they login to the system.
- View Case Filed
  - User can view the case filed into their account.
- (Google map link)
  - User will be linked with Google Map in the system.
- (Should be able to see the police updates of traffic)
  - User can also notified with police updates regarding traffic.

### Police

- Login
  - Police can login to the system with the registered login credentials.
- Rules
  - Police will update the rules about traffic into the system.
- Create Case – Upload Proof Photos
  - Police will create a case by the upload of photo proofs.
- (Uploading bike number and person photo)
  - Police will upload the details of the person like bike number and a person's photo into the system.
- Manage - Live information of traffic report - New updates
  - Police can manage the Live information of traffic report and also the New updates
- Google map traffic – Link
  - Google map will be linked to the case by the police.

## Admin

- Manage Police Login
  - Admin can manage login details of Police
- (Creating area ,street,city)
  - Admin can create Area, Street and City details.
- View Daily Report
  - Admin can view the daily reports of the entire system.