

STI-Union Bank Xcellerator Program

TRAPPIC

A Modernization of Traffic Violation Ticketing System

USER'S MANUAL

Developers:

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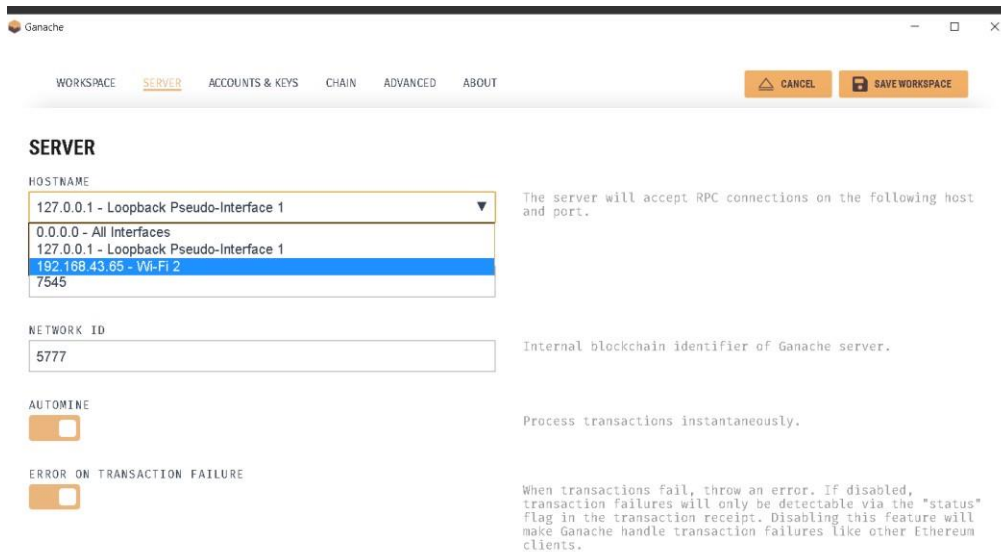
Jan Carlo S. Espiritu

Jener N. Galang

June 2020

HOW TO SET UP trAPPic APP

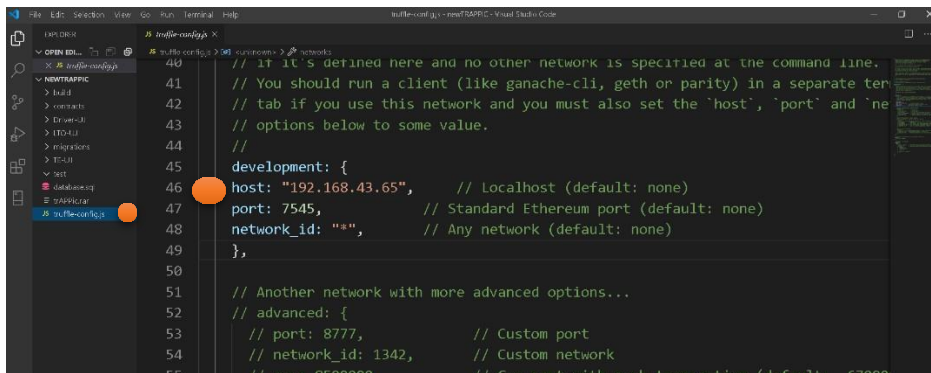
1. After Downloading the file extract the node_module.zip on its root folder.
2. Open your Ganache and set your server depending on your IP.



Click "SAVE WORKSPACE"

3. Run database.sql on SQLyog.
4. Open the trAPPic folder on VScode.
5. Change the value on Truffle-config.js

In development: HOST (this should be similar as the IP you choose in Ganache.)



6. Migrate the smart contract by typing “truffle migrate” on your terminal.

```
PS C:\Users\Jhay\Desktop\newTRAPPIC> truffle migrate

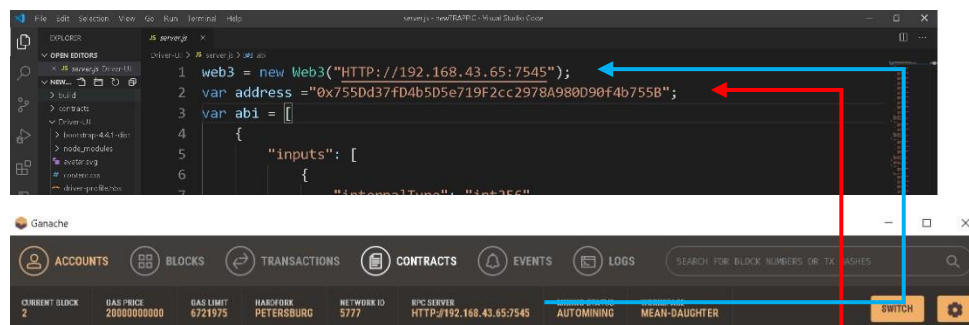
Compiling your contracts...
> Compiling .\contracts\Bank.sol
> Compiling .\contracts\LT0.sol
> Compiling .\contracts\migrations.sol
> Compiling .\contracts\sample.sol
> Artifacts written to C:\Users\Jhay\Desktop\newTRAPPIC\build\contracts
> Compiled successfully using:
  - solc: 0.5.16+commit.9c3226ce.Emscripten.clang

Starting migrations...
> Network name: 'development'
> Network id: 5777
> Block gas limit: 0x6691b7

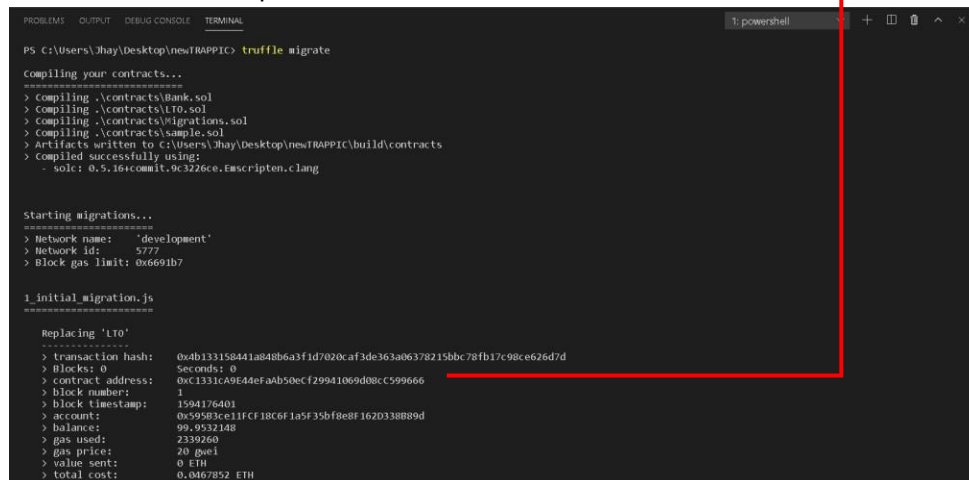
1 initial_migration.js

Replacing 'LT0'
> transaction hash: 0x4b133158441a848b6a3f1d7020caf3de363a06378215bbc78fb17c98ce626d7d
> Blocks: 0
> contract address: 0xC1331cA9E44eFaAb50eCf29941069d08cC599666
> block number: 1
> block timestamp: 1594176401
> account: 0x59583ce11fCF18C6F1a5F35bf8e8F162D3388B9d
> balance: 99.9532148
> gas used: 2339260
> gas price: 20 gwei
> value sent: 0 ETH
> total cost: 0.0467852 ETH
```

- a. change the following value on ../server.js
 - i. web3 should be equal to GANACHE RPC SERVER



- ii. Address should be equal to “contract address”.



7. Create new terminal and go to: c:\Users\Jhay\Desktop\newTRAPPIC\LTO-U.I

a. Start the server by typing “node index” and press Enter.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Jhay\Desktop\newTRAPPIC> cd c:\Users\Jhay\Desktop\newTRAPPIC\LTO-U.I
PS C:\Users\Jhay\Desktop\newTRAPPIC\LTO-U.I> node index
Server running on port: 8000
Connected to database
```

8. Create new terminal and go to: c:\Users\Jhay\Desktop\newTRAPPIC\Driver-U.I

a. Start the server by typing “node index” and press Enter.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Jhay\Desktop\newTRAPPIC> cd c:\Users\Jhay\Desktop\newTRAPPIC\Driver-U.I
PS C:\Users\Jhay\Desktop\newTRAPPIC\Driver-U.I> node index
Server running on port: 3000
Connected to database
```

9. Create new terminal and go to: c:\Users\Jhay\Desktop\newTRAPPIC\TE-U.I

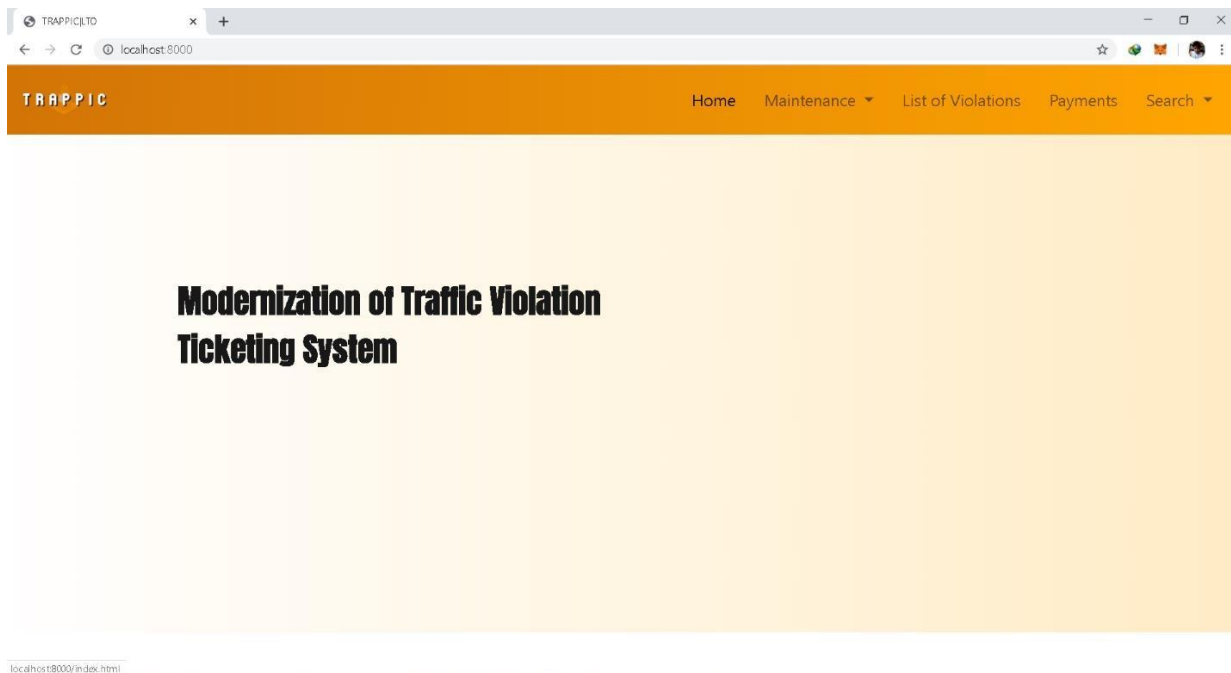
a. Start the server by typing “node index” and press Enter.

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Try the new cross-platform PowerShell https://aka.ms/pscore6

PS C:\Users\Jhay\Desktop\newTRAPPIC> cd c:\Users\Jhay\Desktop\newTRAPPIC\TE-U.I
PS C:\Users\Jhay\Desktop\newTRAPPIC\TE-U.I> node index
Server running on port: 5000
Connected to database
```

The Web Application are ready to use.



Android Application

1. Install the APK of trAPPic.
2. Open the application.



In this activity it allows the user to set up the server and choose a user type.

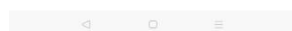


- a. Type the server on the textbox located on the upper part of the U.I.

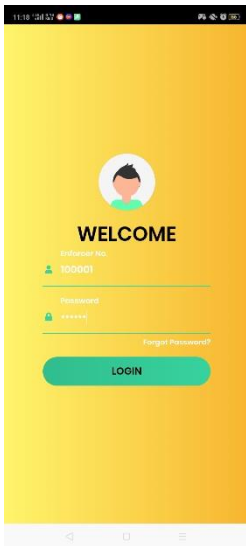
This should be equal to the IP address of the server Computer
(this option is for Prototype only,
it allows us to test the application locally.)



- b. this allows the user to choose his/her User type by clicking the button.



TRAFFIC ENFORCER ACCOUNT



LOG IN

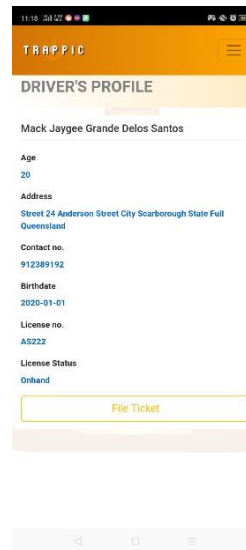
this module allows the Traffic Enforcer to log in to his account by typing his Traffic Enforcer ID No. and its Password.

TEST DATA

TRAFFIC ENFORCER'S ACCOUNT

Enforcer No: 100005

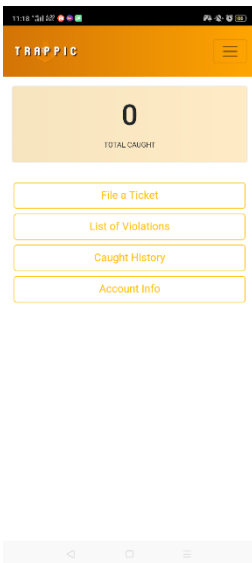
Password: pass1234



DRIVER'S PROFILE

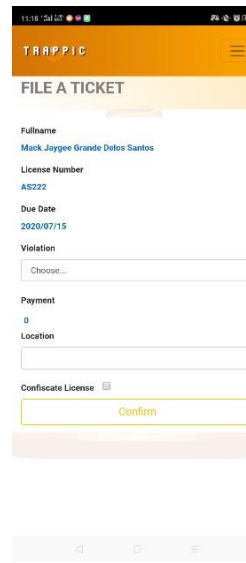
this module allows the user to verify the Drivers information and whether his license has been confiscated or not.

If the identity of the driver has been established the user can now file a ticket by clicking the File Ticket button.



DASHBOARD

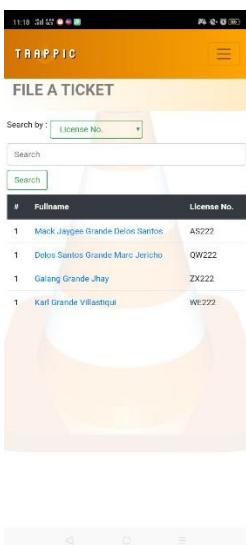
this module allows the user to navigate the entire account and it also allows the user to view the how many violators he caught.



TICKET FILING

this module allows the user to file ticket to a violator by choosing its violation on drop down list and typing the location where the violation occur. The user has an option whether he needs to confiscate the license or not. By checking the checkbox, the license tracker will be change from **ONHANDS** (Driver's Possession) to **T.E.** (traffic enforcer custody).

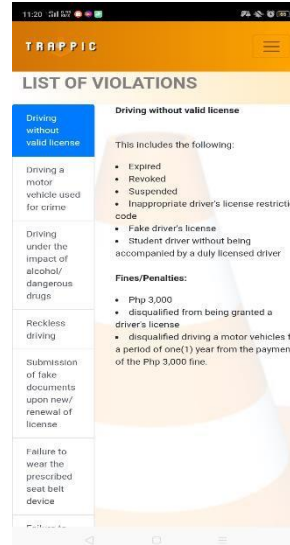
Filing will occur by clicking the confirm button.



FILE A TICKET

this module allows the user to search the driver by inputting either his name, license No. car plate number or conductor Sticker No. and click search

to choose the violator just click his name.



LIST OF VIOLATION

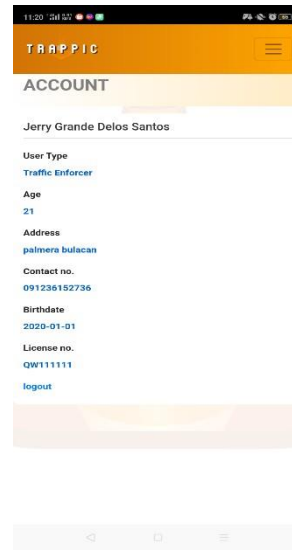
This allows the user to view all the list of violation he can file together with the corresponding description and sanctions

To view its description, click the violation on navigation list on the left area.



VIOLATION HISTORY

This module allows the user to view the history of violators he caught.



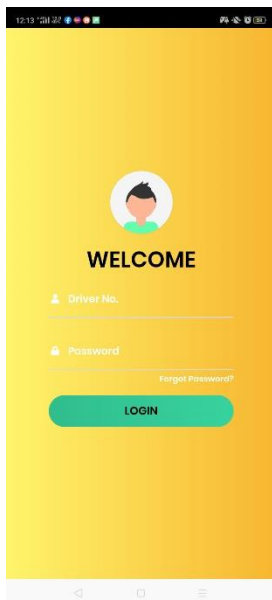
ENFORCER'S PROFILE

This allows the User to view his Registered Information.

It allows the user to change his password by clicking "Change Password".

It also allows the User to log-out his account by clicking "Log-Out".

DRIVERS ACCOUNT



LOG IN

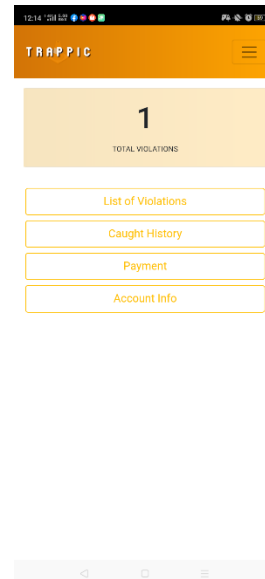
This allows the user to Log In his Account by typing his Driver's License No. as his User name and his password.

TEST DATA

DRIVER'S ACCOUNT

License No: N11100

Password: pass1234



DRIVER'S DASH BOARD

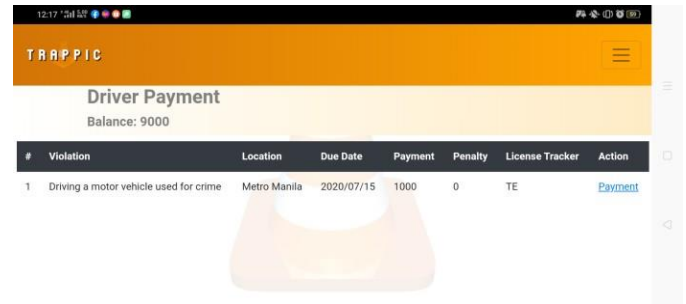
It allows the User to navigate the entire account by clicking the navigation buttons he can also view the number of violations he commits.



LIST OF VIOLATION

This allows the user to view all the list of violation together with the corresponding description and sanctions. For the driver to familiarized himself in every violation.

To view its description, click the violation on navigation list on the left area.

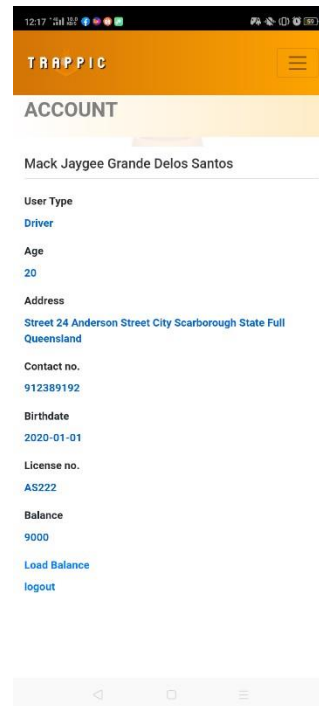


This allows the Driver to settle his violation by clicking the Payment on Action Column. It also shows the balance of the driver' wallet that he can used to pay for his violation.

VIOLATION HISTORY



This allows the Driver to view his pending violation and track down his license if the enforcer confiscate it. It also allows the user to view his previous and settled violation in history table.



DRIVERS PROFILE

This allows the User to view his Registered Information.

It allows the user to add up a wallet balance by clicking "LOAD BALANCE".

It allows the user to change his password by clicking "Change Password".

It also allows the User to log-out his account by clicking "Log-Out".

LTO / ADMINISTRATOR'S ACCOUNT

DASHBOARD



This allows the administrator to navigate the entire account by clicking the options above.

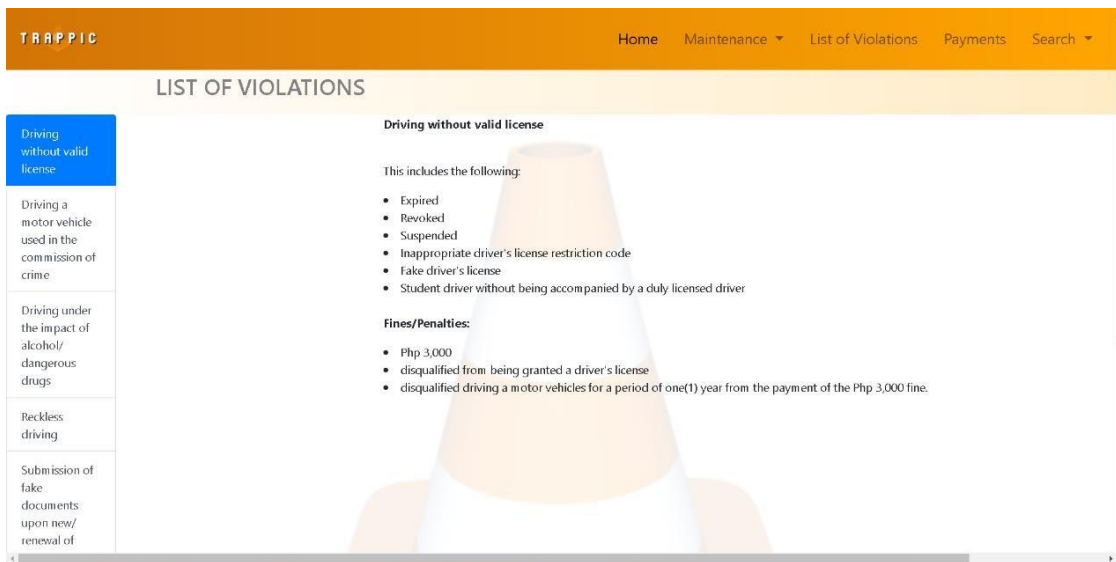
REGISTRATION PAGE

The screenshot displays the "DRIVER REGISTRATION" page within the TRAPPIC application. The page has a light orange header with the TRAPPIC logo and navigation links. A dropdown menu under "Maintenance" is open, showing options for "Driver Registration", "Enforcer Registration", and "Car Registration". The main content area contains a registration form with the following fields: "First name", "Last name", and "Middle name" (all with placeholder text); "Nationality" (a dropdown menu); "Sex" (a dropdown menu with "Choose..." selected); "Zip" (a dropdown menu with "Zip Code" selected); "Email" and "Password" (text input fields); "Address" (a text input field with "Full Address" placeholder); "Birthdate" (a text input field with "mm/dd/yyyy" placeholder); "Birthplace" (a text input field with "Birthplace" placeholder); "Age" (a text input field with "Age" placeholder); "Contact Number" and "License Number" (text input fields). A blue "Submit form" button is located at the bottom left of the form area. The background of the page features a faint, stylized image of a traffic officer in uniform.

This allows the administrator to add an account of the following

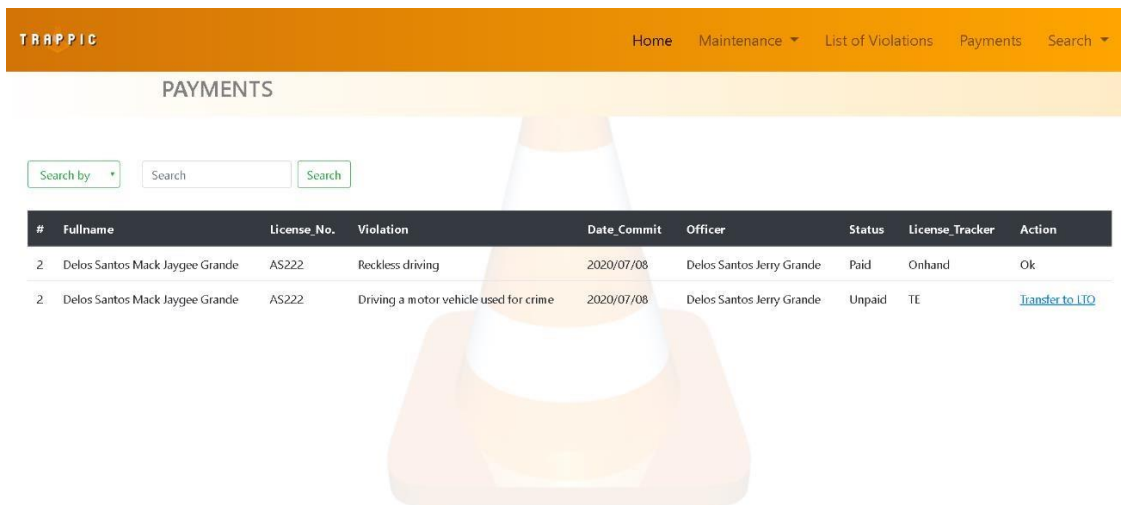
- A DRIVER (when a new driver applies for a license).
- A TRAFFIC ENFORCER (giving an account to an Enforcer).
- A CAR (when a license holder wants to register his vehicle).

Note: A Default password can be set here.



This page allows the user to view all the list of violations and its corresponding description and sanction.

To view its description just click the violation on the navigation list.



This allow the user to view all the previous violation of the driver and set the license tracker from T.E. (traffic enforcer Custody to LTO (L.T.O. Custody) by clicking the “TRANSFER TO LTO” on action column when the Traffic Enforcer submit it to the LTO.

It also allows the administrator to verify if the driver settled his violation. If it is settled the administrator can set the tracker form LTO (LTO Custody) to ONHANDS (Driver’s Custody) by clicking the “ONHAND” on Action Column.

SEARCH PAGE

TRAPPIC

HomeMaintenance ▾List of ViolationsPaymentsSearch ▾

SEARCH

Search by ▾

Search

Search

#	Fullname	License No.	User Type	Date registered
20002	Mack Jaygee Grande Delos Santos	AS222	Driver	2020/03/14
20003	Delos Santos Grande Marc Jericho	QW222	Driver	2020/06/07
20004	Galang Grande Jhay	ZX222	Driver	2020/06/13
20005	Karl Grande Villastiqui	WE222	Driver	2020/06/21

This allows the Administrator to search for the DRIVER, TRAFFICE ENFORCER, and REGISTERED CAR on the Database. The admin can choose the user by clicking the name of the user.

PERSONAL NFORMATION

TRAPPIC

HomeMaintenance ▾List of ViolationsPaymentsSearch ▾

SEARCH

Personal Info

Cars

License Info

Violations

License No.	AS222	Firstname	Mack Jaygee
Middlename	Grande	Lastname	Delos Santos
User Type	Driver	Nationality	Australia
Sex	Male	Email	dmackjaygee0321@gmail.com
Zip Code	4020	Address	Street 24 Anderson Street City Scarborough State Full Queensland
Birthday	2020-01-01	Birthplace	bulacan

Edit

It allows the administrator to view the personal information of the User.

By clicking Edit button he can make an update on information when needed.

CAR INFORMATION

TRAPPIC

HomeMaintenance ▾List of ViolationsPaymentsSearch ▾

SEARCH

Personal Info

Cars

License Info

Violations

#	Car Brand	Car Model	Car Color	Plate Number	Conduction Sticker
3	Mitsubishi	Adventure 2005	Red	RGW117	GT0223

It allows the Admin to view all the information of the car registered to a certain driver.

LICENSE INFORMATION

TRAPPIC

HomeMaintenance ▾List of ViolationsPaymentsSearch ▾

SEARCH

Personal Info

Cars

License Info

Violations

License Number

Name

Address

Contact no.

Expiration Date

Status

Terminate

AS222
Mack Jaygee Grande Delos Santos
Street 24 Anderson Street City Scarborough State Full Queensland
912389192
October 11, 1996
Expired

This allows the admin to view the license information of the driver. It also allows the admin to terminate the license upon discretion of the administrator.

VIOLATION HISTORY OF THE DRIVER

TRAPPIC

HomeMaintenance ▾List of ViolationsPaymentsSearch ▾

SEARCH

Personal Info

Cars

License Info

Violations

Pending Violations

History of Violations

#	Violation	Location	Date	Officer	DueDate	Payment	Penalty	License Tracker
1	Driving a motor vehicle used for crime	Metro Manila	2020/07/08	Delos Santos Jerry Grande	2020/07/15	1000	0	TE

#	Violation	Location	Date	Officer	DueDate	Payment	Penalty	License Tracker
1	Reckless driving	Manila	2020/07/08	Delos Santos Jerry Grande	2020/07/15	1000	0	Onhand

It allows the admin to view the violation history of the driver to verify whether he is still has a privilege to renew or terminate his license.

TRAFFIC ENFORCER CAUGHT HISTORY

TRAPPIC

HomeMaintenance ▾List of ViolationsPaymentsSearch ▾

SEARCH

Personal InfoHistory

History of Tickets

#	Driver's Name	License No.	Date Caught	Violation	Location	Status
1	Delos Santos Mack Jaygee Grande	AS222	2020/07/08	Reckless driving	Manila	Paid
2	Delos Santos Mack Jaygee Grande	AS222	2020/07/08	Driving a motor vehicle used for crime	Metro Manila	pending

This allows the Administrator to view all the transaction (Filing Tickets) of a certain Traffic Enforcer.

Note: all Traffic Violation and Payment Transaction was BLOCKCHAIN BASED to secure all transaction.

.....END.....