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TRAFFIC REPORT

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Author's declaration of originality

I hereby certify that I am the sole author of this thesis. All the used materials, references to the literature and the work of others have been referred to. This thesis has not been presented for examination anywhere else.

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Abstract

[Text]

This thesis is written in English and is [number of pages in main document] pages long, including [number] chapters, [number] figures and [number] tables.

Annotatsioon

[Tekst]

Antud tees on kirjutatud inglise keeles ning sisaldab teksti [lehekülgede arv] leheküljel, [peatükkide arv] peatükki, [jooniste arv] joonist, [tabelite arv] tabelit.

Table of Contents

Jooniste loetelu

Introduction

Traffic accidents occur on daily basis based on several factors. It can be caused by lack of attention on road, bad conditions or reckless drivers. Since 2020 Estonia has had many traffic accident which kept on increasing each year by almost 10%.
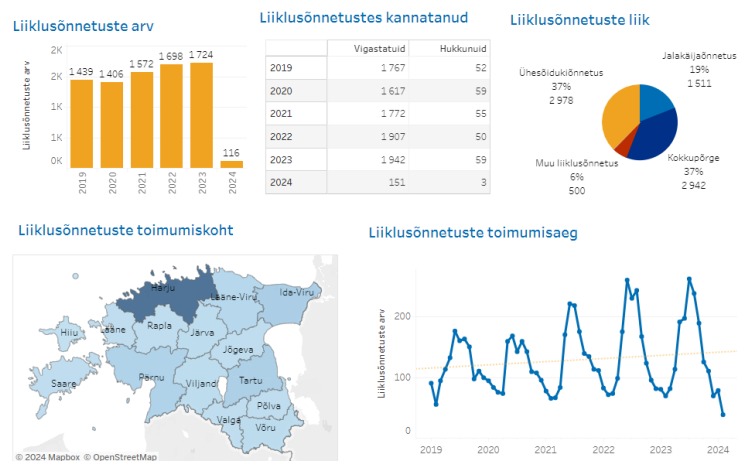

Figure 1 Traffic accident statistics

Government has decreased speed limits in cities, but the main issue of reckless driving still remains. Meanwhile it could be all solved by police patrol all the areas and highways, it is very expensive and requires lots of force. This leaves responsibility on drivers themself to report other people that endanger traffic to prevent fatal accidents.

The purpose of this work is to develop an application as, where you can report reckless drivers by their license plate or other evidence.

Therefore it is possible to see which roads to avoid, where more accidents occur.

Traffic police can receive more and precise data to patrol area in case of reckless drivers.

As a buyer, it would be possible to check how the vehicle had been held by previous owners.

Overview

The purpose of our program is to register different traffic violations in a crowd-sourced form. Users are able to report a vehicle by its license plate. If that vehicle has not yet been reported, the user is asked to fill out basic information about the car such as its color and body type.

Should the license plate belong to a non-estonian vehicle and not follow the estonian license plate standard, users can tick a box stating that the license is not estonian so it will not be required.

After that the reporter is asked more about the violation itself. Selecting a violation type will allow the app to set the severity of the current violation and according to that modify the vehicles traffic rating.

For each report, the user reporting can also add evidence for the violation. This can be a photo of incorrectly parked vehicle or dashcam footage of the culprit running a red light. That evidence can be seen by interested parties to determine how the vehicle was used.

Incase there were other vehicles involved with the violation, whether it be as a victim or an associate, the reporter can add the licenses of said cars. This feature could help authorities get possible witnesses or find more associates to the violation.

Lastly our program allows others to comment on a report. This feature will help us gather more information about the report and also help us reduce the amount of false reports.
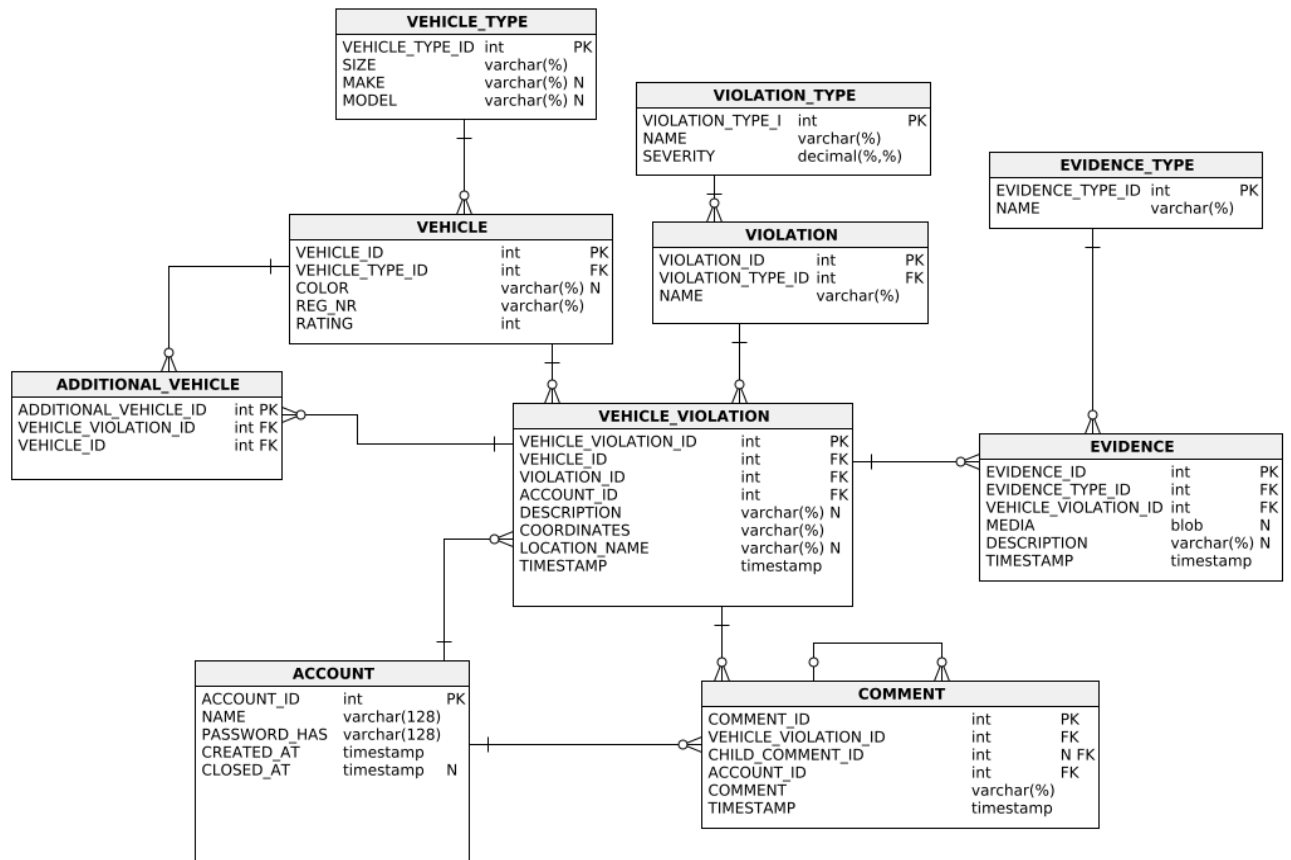
1.1 Entity-Relationship Diagram

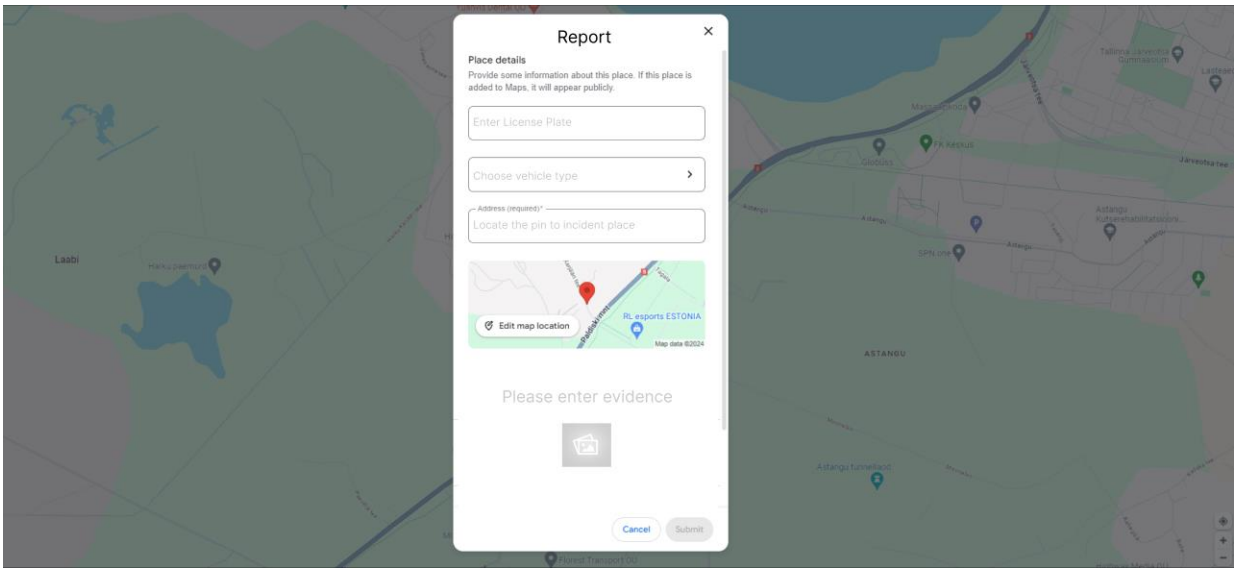

Figure 2 ERD Scheme
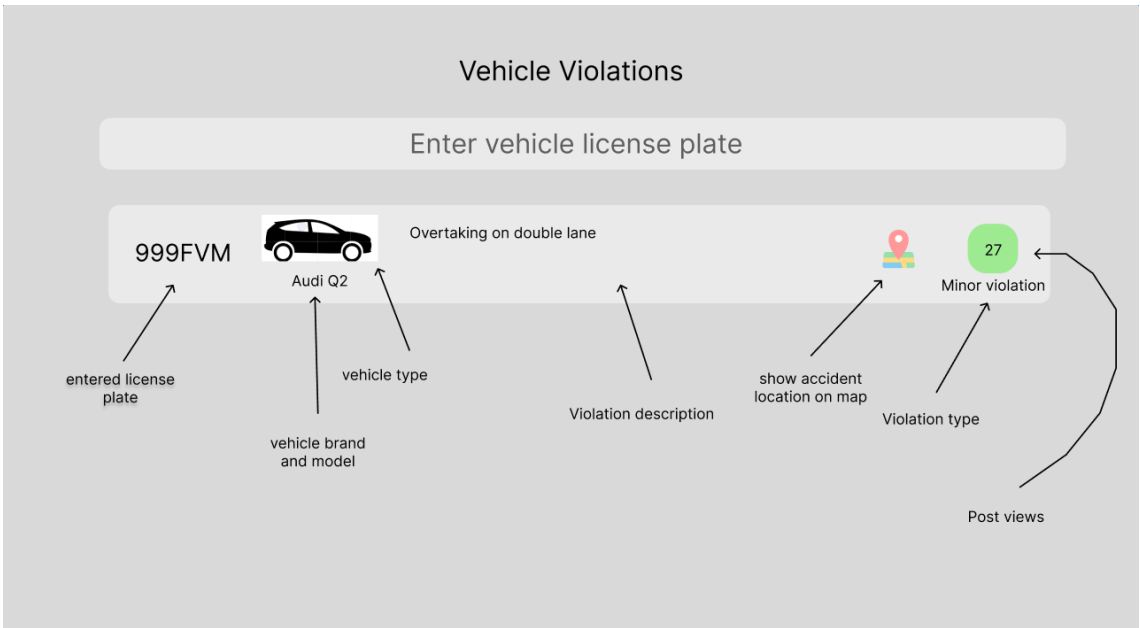
1.2 Interfaces

Figure 3 Report an incident

Figure 4 Search vehicle violation

1.3 REST API Endpoints

Used sources

There are no sources in the current document