VISVESVARAYA TECHNOLOGICAL UNIVERSITY
BELAGAVI-590018

A PROJECT REPORT
ON

TOLL PLAZA MANAGEMENT

BY

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In the partial fulfillment of the requirement for V Sem. B. E. (CSE)

DBMS LABORATORY WITH MINI PROJECT

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2017-18

CERTIFICATE

This is to certify that the project entitled "**toll plaza management "** is submitted in partial fulfillment for the requirement of V sem. B. E. (Computer Science & Engineering), "DBMS LABORATORY WITH MINI PROJECT" during the year 2017 – 18 is a result of bonafide work carried out by

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Signature of the Examiners

1. ……..

2. …….

ABSTRACT

As we all aware that development of a country depends upon its basic infrastructure. An express highway, for physical movement, is one of them. A toll road is a public or private road for which a fee is assessed for passage. It is a form of road pricing typically implemented to help recoup the cost of road construction and maintenance. But when we use manual toll collection it will lead to long queue at each toll plazas on expressway which wastes a lot of journey time, fuel and emissions of co2. As of now, at each toll both the vehicle has to stop for paying the toll. We are developing a computerised database system and reduce the queue at the toll booth.

The aim of our project is to design a semi automatic toll plaza system to collect the toll bill which stores the record of vehicles number and other details about vehicle while crossing the toll gate. When the vehicle approaches the toll gate if the vehicle details are already saved in the database and if the tickets are already bought then the booth employee opens the toll gate. This translate to reduced Traffic congestion at toll plazas and helps in lower fuel consumption.

For the toll operators, the benefits include:
Lowered toll collection costs.
Better audit control by centralizing user accounts.
Expand capacity without building more infrastructures

ACKNOWLEDGEMENT

The success and final outcome of this project required a lot of guidance and assistance from many people and we are extremely privileged to have got this all along the completion of our mini project. All that we have done is only due to such supervision and assistance and we would not forget to thank them.

I owe my deep gratitude to our project guides Dr. Pushpalatha K and Mrs Ankitha, who took keen interest on our project work and guided us all along, till the completion of our project work by providing all the necessary information for developing a good system.

We are thankful to and fortunate enough to get constant encouragement, support and guidance from Teaching staffs of CS department of Sahyadri college of Engineering Adyar, which helped us in successfully completing our project work.

Also, I would like to extend our sincere esteems to all staff in laboratory for their timely support.

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1.

1. INTRODUCTION

PROJECT STATEMENT:

"Design and develop a Semi-Automatic toll plaza database system to store and retrieve vehicle information passing through a particular tollgate"

As the name suggests "Semi-Automatic Toll Plaza" the key theme of our project is the automation. So here we will just take the over look of what is mean by Semi-Automation.
So in very simple language the Semi-Automation means to replace the human being from the process with the machines upto a certain extent. Before moving further we will just take the overlook of history of the toll plazas. In early days toll booths means there are two people for opening & closing of the gate & another two are for reception of the money & data keeping etc. But by using semi automatic toll plazas data is stored in computers only two personals are required for single booth.

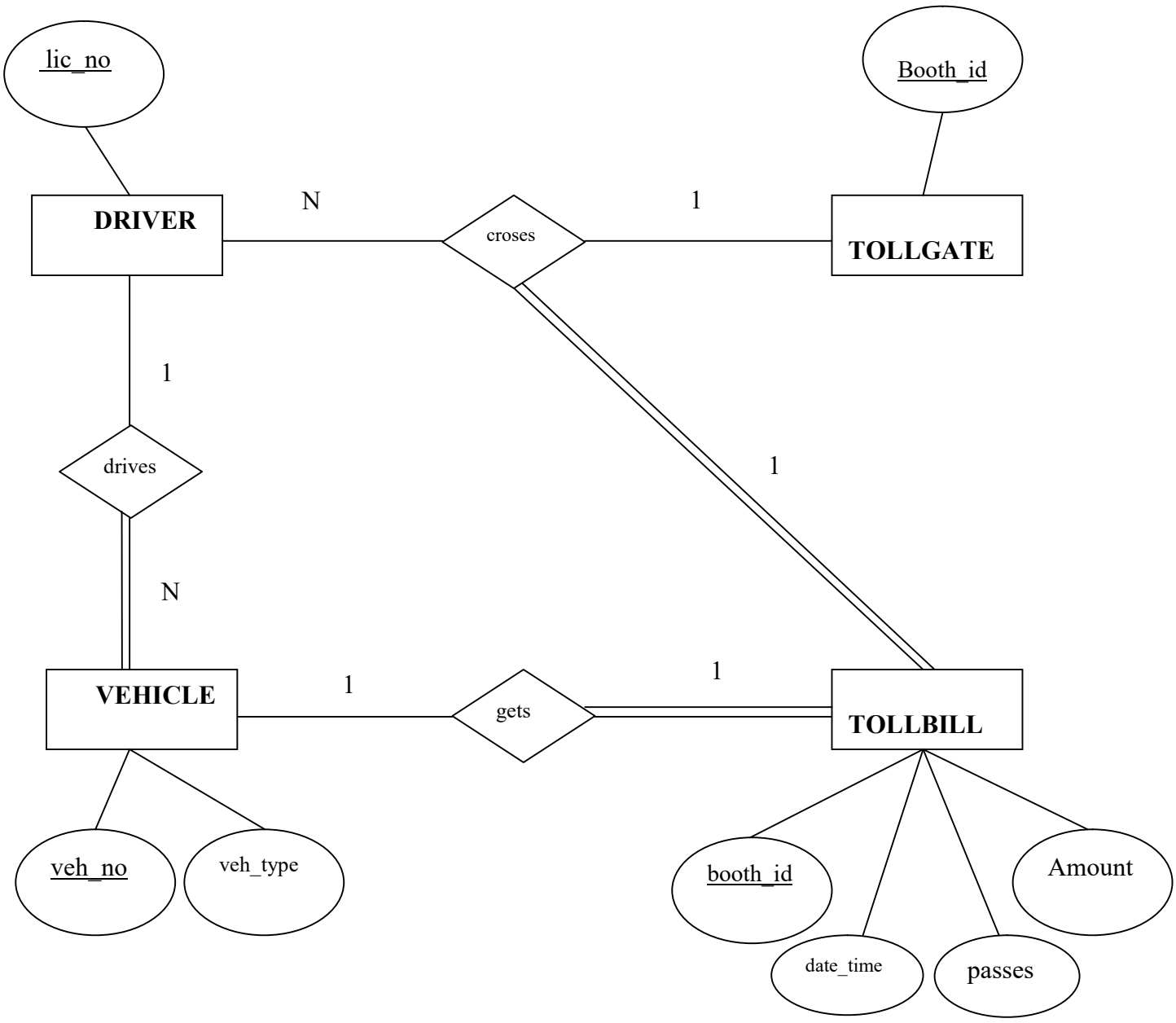
PURPOSE OF THE PROJECT:

Here we are going to see some points regarding to purpose behind choosing this topic & what is the requirement of this type of the project in our day to day life.

- ➔ Avoid the fuel loss.
- ➔ Lowered toll collection costs.
- ➔ Better audit control by centralizing user accounts.
- ➔ Expand capacity without building more infrastructures
- ➔ Easy way to retrieve vehicle data.

2. DESIGN

ER-DIAGRAM:



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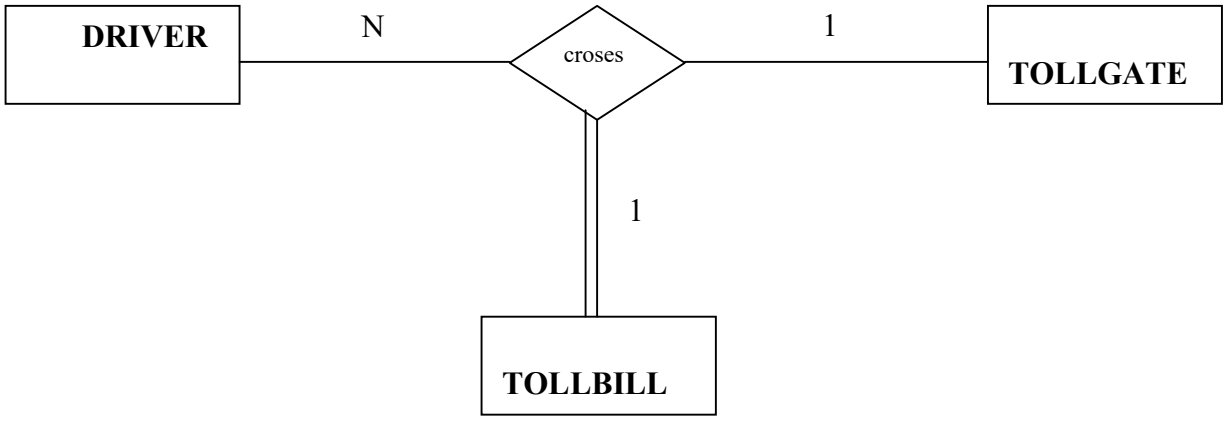

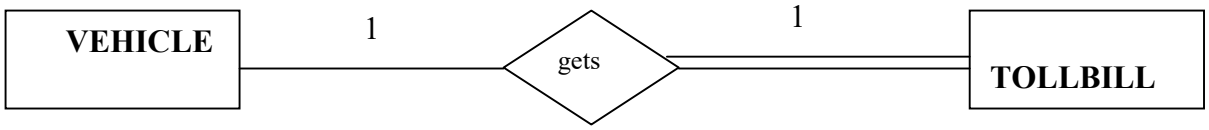

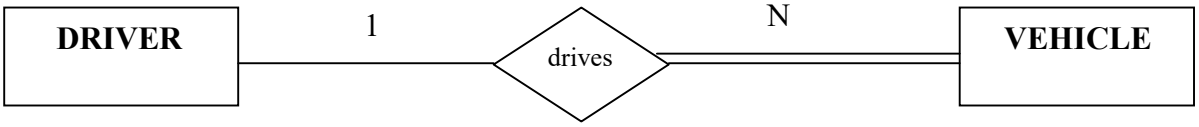

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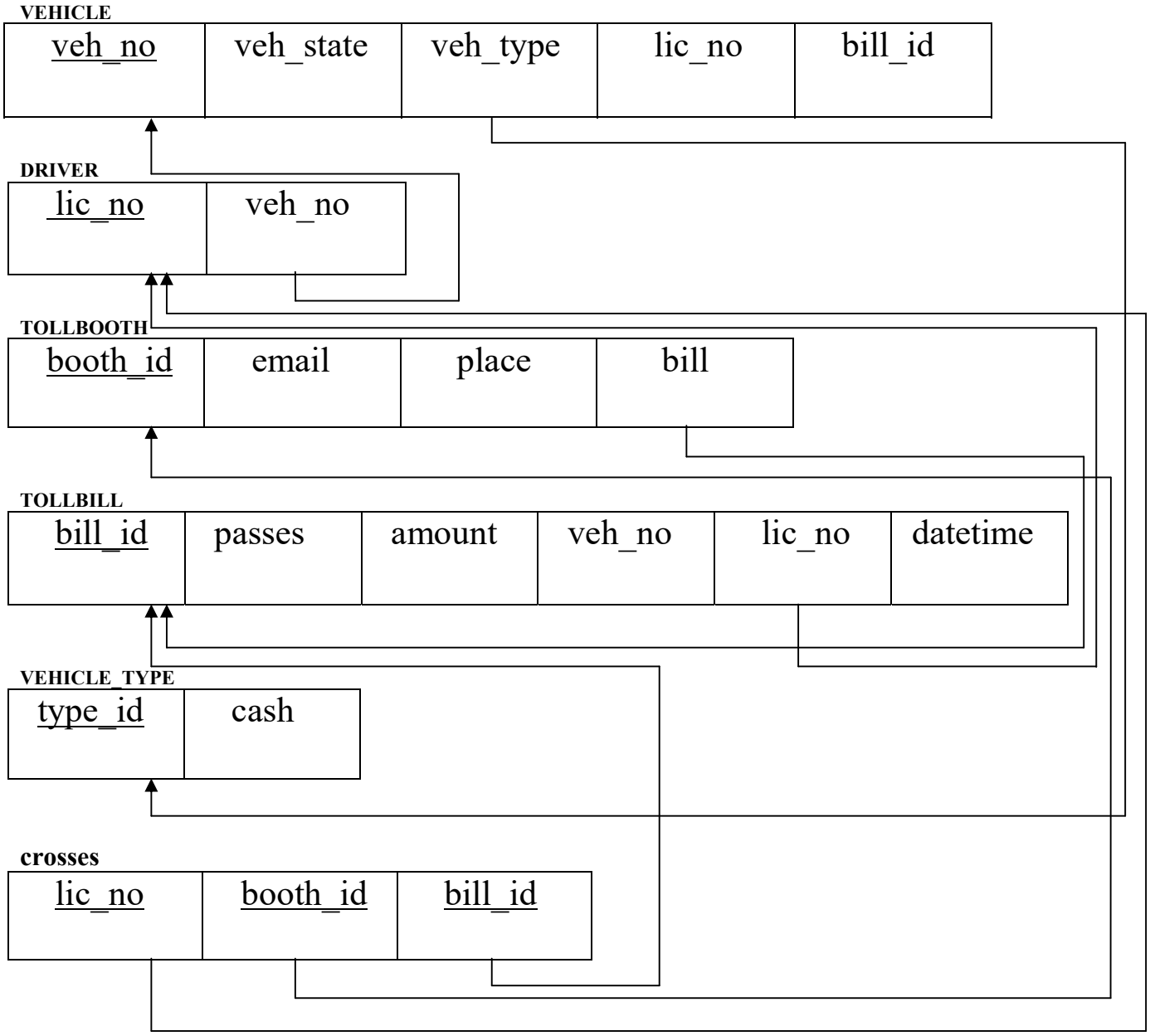

NORMALIZATION:

TOLLBOOTH

booth_id	email	place	bill

BOOTH_BILL

booth_id	bill

BOOTH_DETAIL

booth_id	email	place

3. IMPLEMENTATION

COMPUTERIZED TOLL COLLECTION SYSTEM: SOFTWARE

Login

In proposed system, there is a provision of login for administrator and booth, admin and booths have to enter their ID and Password before entering to the database. If all the details match then operator can login to the toll system. If a new booth has to register into the database then it has to fill the registration form and need to login again.

Toll Operating Software

When vehicle enter in the toll plaza firstly the vehicle license plate number has to be entered along with other details. After filling the complete form the toll operator submits the data to the database. This action will save all the information regarding the vehicle into the database and prints the bill. This data can be retreived from the database by the authorised persons whenever needed.

Database of toll system is divided into mainly two parts:

1. Database Admin
2. Booth database

The admin database contains details of all toll booths. The booth database includes all registered vehicles with details like vehicle number, driver license number, date and time of passing etc. Both the database admin and booth database is connected to a centralized database where all the data is saved. All toll-booths records stored at central server and these records could be seen and printed by day, date, month, and year. All these records are maintained at corresponding toll-booth.

4. RESULTS

If we implement this method on toll plazas having traditional manual toll collecting method the whole time duration for payment of toll or retrieval of data will be less. We can also get vehicle information at customer account registration time and when vehicles crosses booth.

These records can be seen by using driver name or vehicle number. This computarized toll plaza system will also results in less usage of man power, fuel saving, reduced complexity in storing and retrieving data etc.

5. CONCLUSION

By doing semi-automation of toll plaza we can have the best solution over money loss at toll plaza by reducing the man power and also can reduce the traffic indirectly resulting in reduction of time at toll plaza.
In our project we have implemented the computarized way of storing the information regarding the vehicles that passes through the toll gate.

6. REFERENCES

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