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College of Science Al Zulfi



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جامعة المجمعة
وزارة التعليم العالي
كلية العلوم بالزلفي

Development of the system of reservation in traffic

Student Affairs System
For College of science Al Zulfi
Department of Computer Science and Information

Graduation project
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CHAPTER 1: INTRODUCTION

1.1 Introduction

This project will design and develop a blocking-car application (Website and Android) system through connect to traffic database system. We will update and develop the old version of the access-application for blocking-car through Internet application. There are some problems of Access software old design such as only one user can log in and it disconnect with internet, very slowly and have not inquiry about type of status car.

The application website consists of three main processes: Block, Unblock and Inquiry procedures. The user has privilege to inquire and block process only and Administrator will have all processes.

We will develop the old version of this application based on PHP software, Android software and MYSQL.

1.2 Problem Definition

Nowadays, the needing to software application connected to internet to manipulation and management blocking car is very important. So, we will develop and design a new software application to simulate blocking system based on traffic database system.

1.3 Goals

- Program development
- Writing in modern software language
- Making the program fast and easy to use
- Create a strong database that can accommodate the program
- Upload the program on the Internet, allowing more than one user to access it and benefit from its services

1.4 Critical success factors

- Traffic need for the program and daily use
- Use the program on mobile and computer
- Ease of use of the program and the services it offers
- Using the software via mobile

1.5 General rules (assumptions)

- There are three rules to look forward to
- The first is the speed in the work of services
- Ease of use program
- Save the data and order and speed of reference

Chapter 2: System Analysis and Specification

2.1 Description of Data Flow Diagram (DFD)

- When you book a car, you need three steps.
- The first entry is on the program.
- Step second Choose the Booking icon.
- Step Third Enter the data of the vehicle you want to book and it will be stored in the database directly.
- When you leave the car, you will need three similar steps to enter.
- The first step is to enter the program.
- The second step is to select the car exit icon from the reservation.
- Step Third Enter the vehicle data you wish to exit from the booking. The vehicle data will appear and the exit report will be automatically printed.
- When the query process for a car.
- You should have three steps.
- The first step is to get into the program.
- Step two Choose the query icon for the car.
- Step Third Enter the vehicle data you wish to query and it will appear on the screen automatically.

2.2 Data Flow Diagram (DFD)

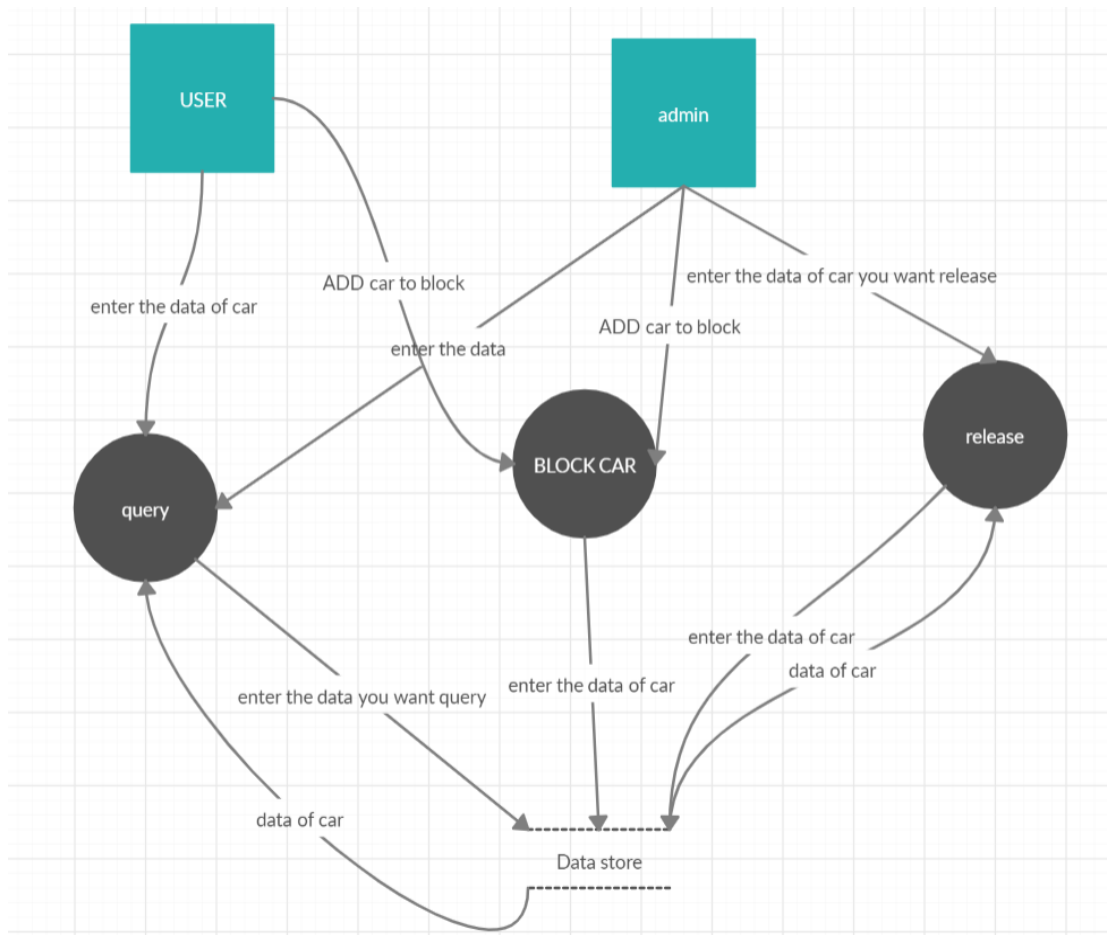


Figure 2.1: Data Flow Diagram

2.2.1 Detailed DFDs

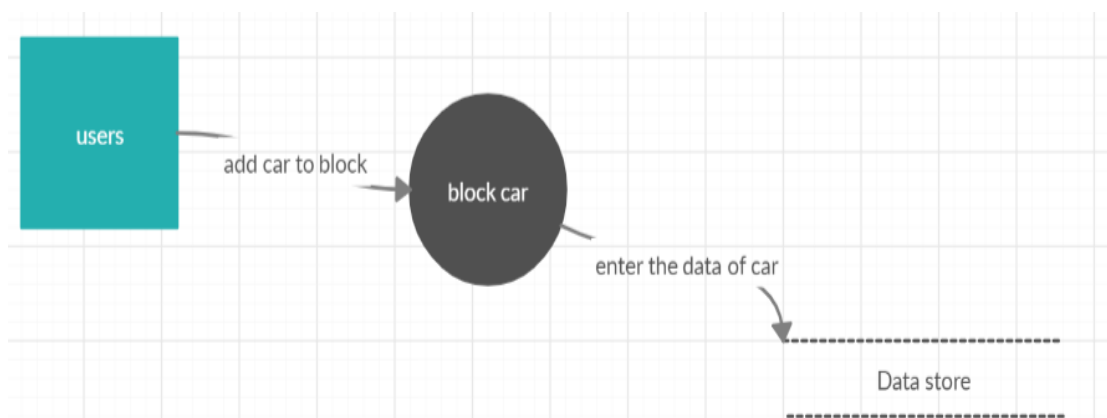


Figure 2.2: Detailed DFDs – User Block Car

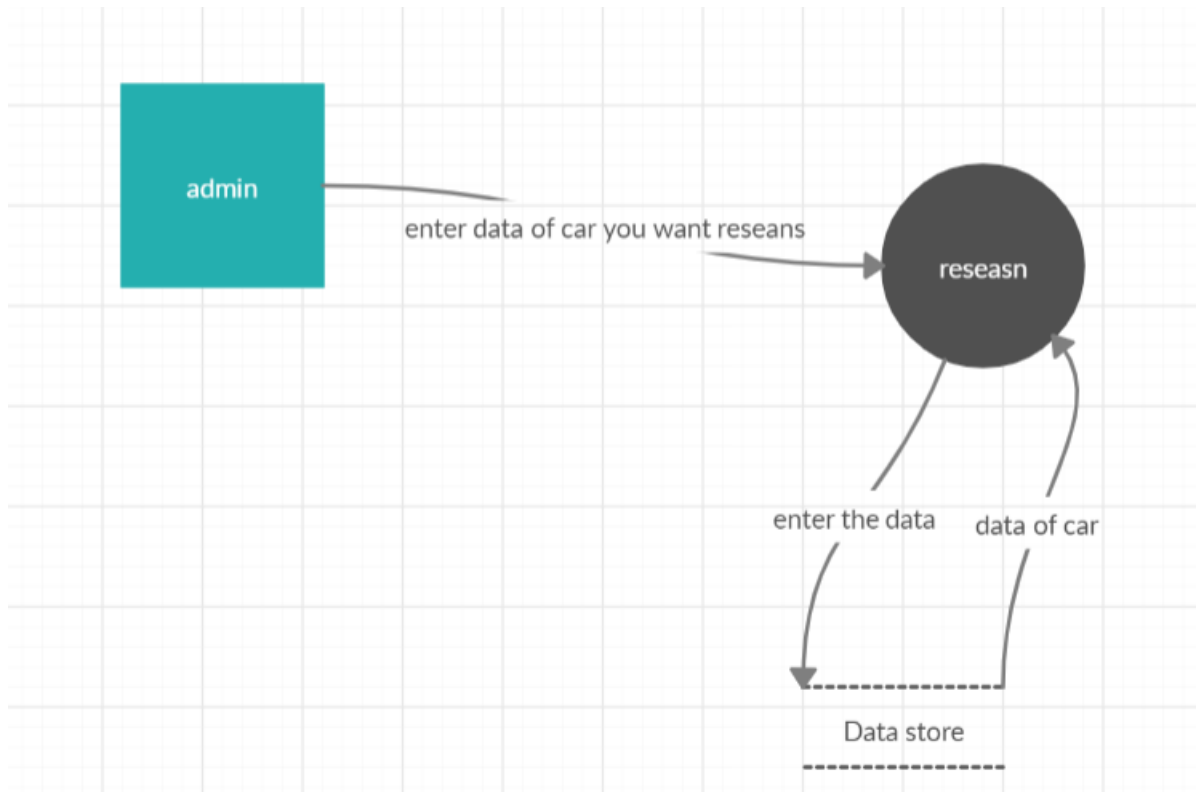


Figure 2.3: Detailed DFDs – Admin Give Reason

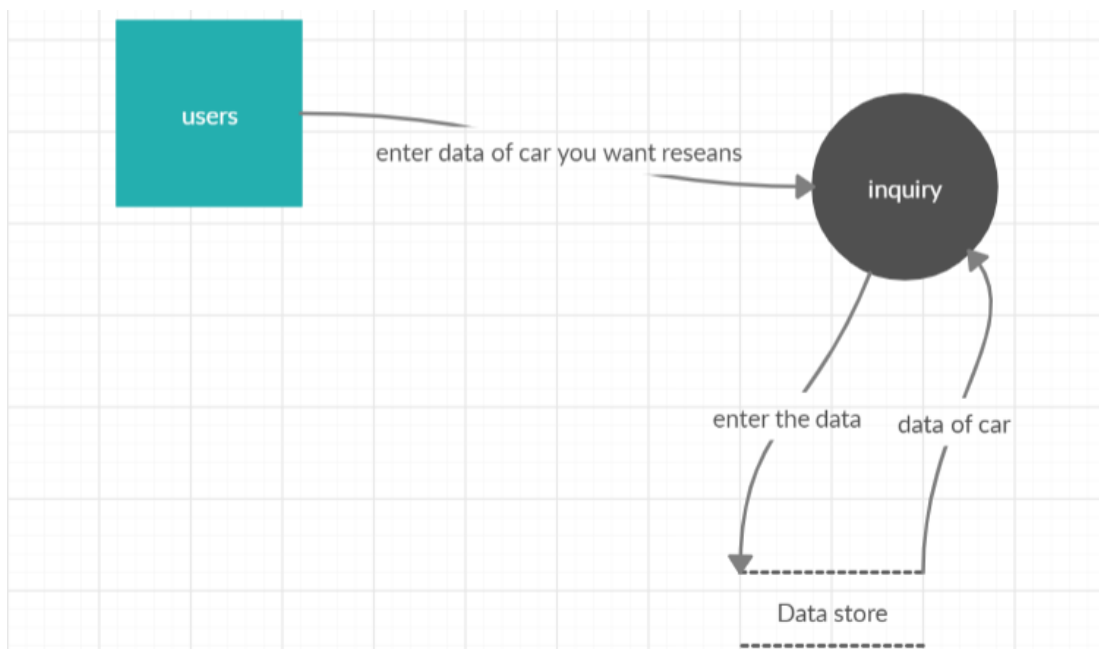


Figure 2.4: Detailed DFDs – User Add Inquiry

2.3 Use Case Diagram

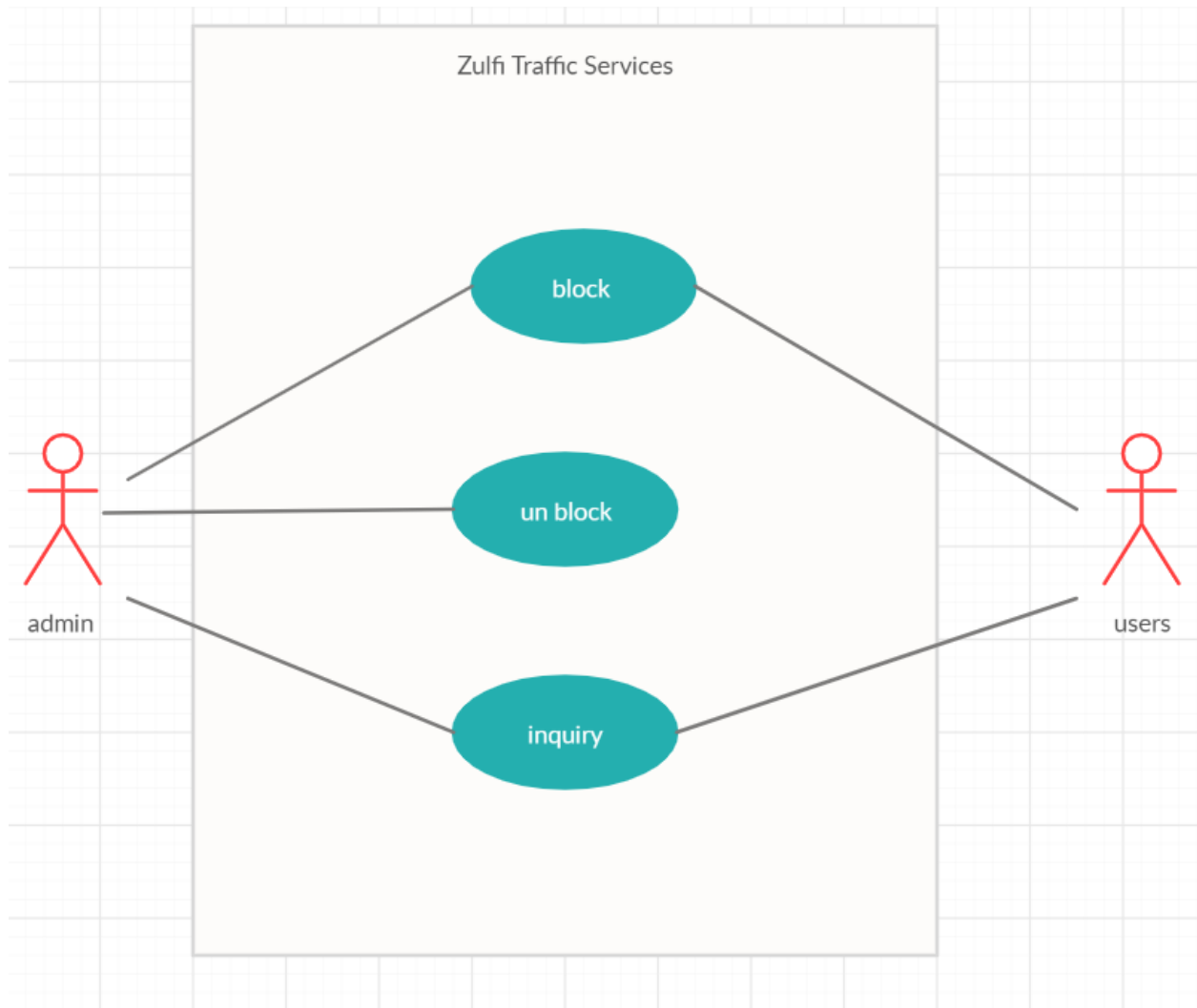


Figure 2.5: Use Case Diagram

2.4 Description of Entities

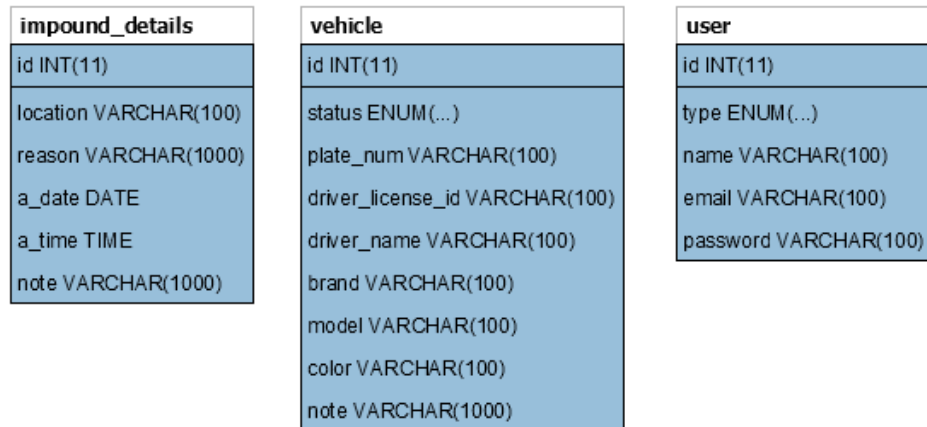


Figure 2.6: Description of Entities

2.5 Description of Relations

2.5.1 Drawing ERD.

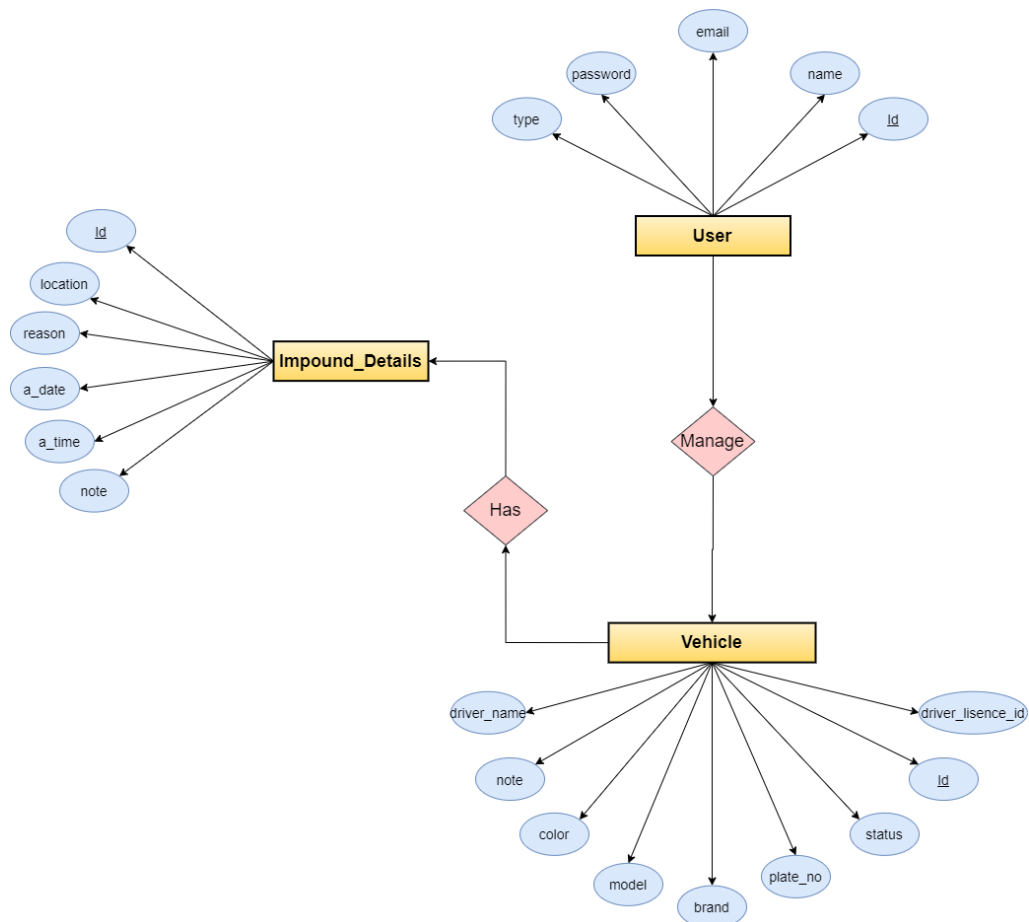


Figure 2.7: ER Diagram

Chapter 3: System design

3.1 Description of procedures and function

First user can do the following process:

1. Block/Reserved A Car: access on database of all cares and convert type (status) into Blocked. Then this record care coped into database Reserved Car.
2. Inquiry about any information about Car: such as location, name, car status, and so on.

Second Administrator only who can release a blocked car.

3.2 Relation Database Schema

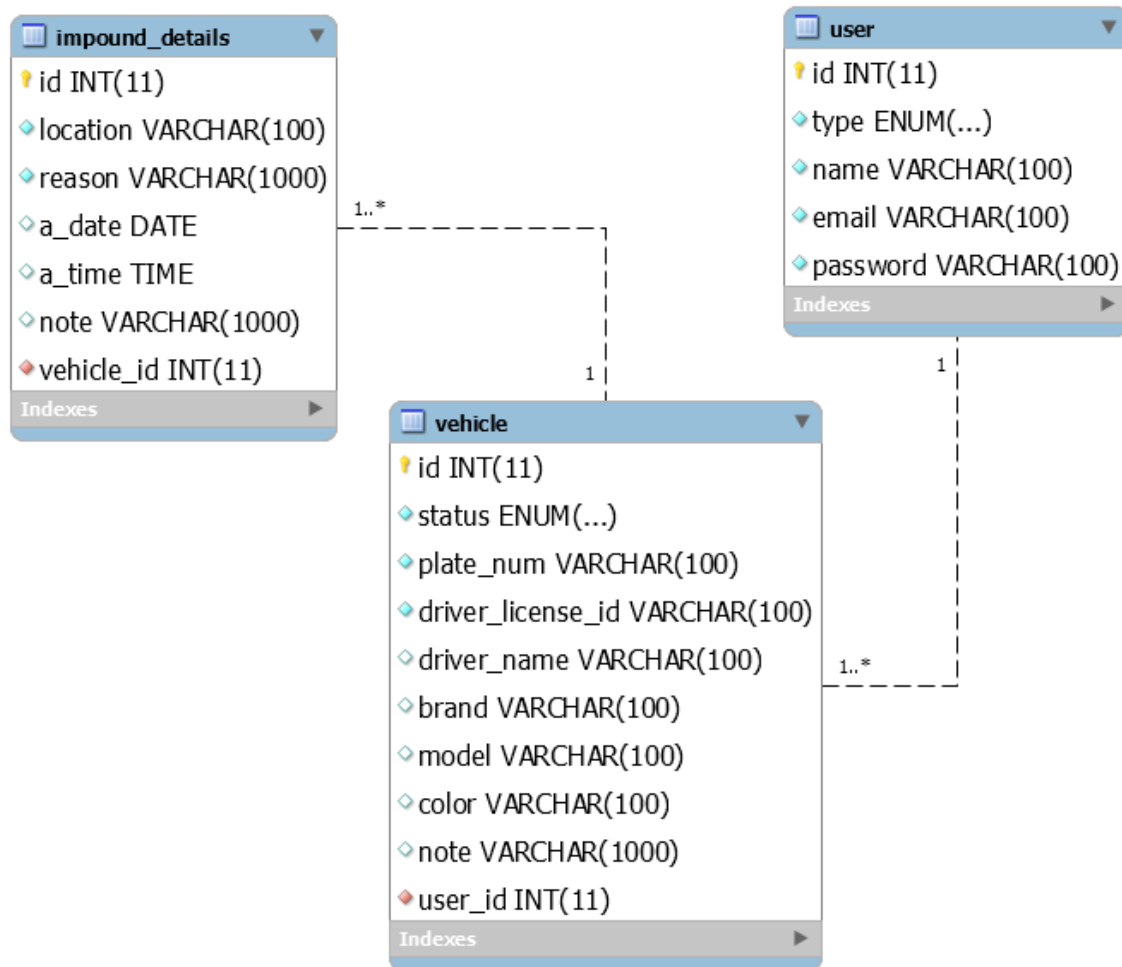


Figure 3.1: Relation Database Schema

3.3 Tables, Attributes & Relations

Tables: Users, Vehicles, and Impound Details.

Attributes & Relations: explained below.

3.3.1 Impound Details Table

Table 3.1: Impound Details Table

Column	Type	Null	Default
id (Primary)	int(11)	No	
location	varchar(100)	No	
reason	varchar(1000)	No	
a_date	date	Yes	<i>NULL</i>
a_time	time	Yes	<i>NULL</i>
note	varchar(1000)	Yes	<i>NULL</i>
vehicle_id	int(11)	No	

3.3.2 User Table

Table 3.2: User Table

Column	Type	Null	Default
id (Primary)	int(11)	No	
type	enum('Admin', 'Officer')	No	Officer
name	varchar(100)	No	
email	varchar(100)	No	
password	varchar(100)	No	

3.3.3 Vehicle Table

Table 3.3: Vehicle Table

Column	Type	Null	Default
id (Primary)	int(11)	No	
status	enum('Blocked', 'Unblocked')	No	Blocked
plate_num	varchar(100)	No	
driver_license_id	varchar(100)	No	
driver_name	varchar(100)	Yes	<i>NULL</i>
brand	varchar(100)	Yes	<i>NULL</i>
model	varchar(100)	Yes	<i>NULL</i>
color	varchar(100)	Yes	<i>NULL</i>
note	varchar(1000)	Yes	<i>NULL</i>
user_id	int(11)	No	

3.4 Hardware and Software Requirements

- PHP.
- MYSQL.
- HTML.
- CSS.
- Sublime text editor.

**MAJMAAH UNIVERSITY,
COLLEGE OF SCIENCE AL ZULFI,
DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION**

(CERTIFICATE BY STUDENT)

This is to certify that the project titled “Development of the system of reservation in traffic” submitted by me (**TALAL MNWUER, Student ID:351101291**) under the supervision of DR **Abdullah Saeed** for award of Bachelor degree of the MAJMAAH UNIVERSITY carried out during the Semester 1, 2018-19 embodies my original work.

Signature in full: -----

Name in block letters:

Student ID:

Date: