ROAD TRANSPORT MANAGEMENT SYSTEM (HINTHADA DISTRICT)

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Abstract. The Road Transport Administration Department plays a critical role in maintaining the safety, efficiency, and organization of road transport systems. This is designed for a Road Transport Administration Department under the Ministry of Transport and Communications with mostly value functions. This system allows administrators to quickly and easily manage users' license information with just one click. This system allows users to easily and quickly check license term by simply entering the license number.

Keywords: road, transport, administration, department

INTRODUCTION

Road transport operations are still used in our environment today and are still carried out traditionally. The aim of implementing this system is to make the process of vehicle registration and licensing easier. This website has been created to make the services possible through online platforms more accessible to the public. It aims to save time for users and administrative staff by reducing manual paperwork. As an administrator, you can easily search for vehicle license details and driver's license details by simply entering the license number without searching in the book. The website is easy to use, so information on licenses can be easily searched and updated as needed.

PROBLEM

Today, almost everyone drives a variety of vehicles on public roads for various reasons. However, only a few people understand the traffic rules and regulations, and most people drive without knowing the traffic rules. Such driving has increased the number of accidents and deaths. This website strives to help people understand traffic rules more broadly and reduce traffic accidents. To modernize and streamline its operations, there is a need to convert these manual processes into an online system. The current manual system at the Road Transport Administration Department (Hinthada) faces several challenges. Manual processing of applications and documents is time-consuming and labour-intensive. A manual system can be very difficult to manage and retrieve physical documents. It can be very time-consuming to search for lost or damaged documents because of working with physical documents every day. Therefore, to solve these problems, this website describes some of the things that are necessary for doing business.

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APPROACH

This system consists of two roles. There are admin and user. On the user side, there are two types: visitors who have not logged in and signed in users. Visitors can see motto and latest news. Users can also see information about vehicle licenses and information about driver's licenses. In addition, users can also read notifications and the latest news. Users can see the feedback that has been given to this website. Next, users can easily view the details of RTAD's contact address. Login users need to login first. If the email and password entered during login are correct, the user can continue to use this system, and if the login fails, the user needs to register. Logged in users can perform the same actions as non-logged in users as well as perform tests. In addition, logged in users can also view feedback and write feedback. Login users can also send a message to ask the admin.

In this system, the admin must be login with username and password. After logged in, the admin can view dashboard which includes list of vehicles registered in 2024. Admin can manage vehicle license and driving license information such as inserting, updating, deleting, searching and viewing the license information. Admin can view the list of expired vehicles. Admin can also manage news. The list of registered users can be viewed and deleted by the admin. The admin can read the message sent by the user and can also send a reply. Admin can provide the detailed contact addresses of the department. Admin can also change his password. Then, the admin can logout to exit the system. Figure 1 shows the system flow diagram.



Figure 1: System Flow Diagram

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Figure 2: Database Design

An Entity Relationship Diagram (ERD) is a visual representation of the entities (objects) within a system and the relationships between them. It's commonly used in database design. ERDs help in designing the logical structure of the databases by identifying entities, attributes, and relationships. ERDs are used in database design and system analysis to illustrate how entities (such as tables in a database) relate to one another. It's a key tool in database design and helps to visualize the logical structure of databases. ERD is widely used to design relational databases. The entities in the ER schema become tables, and attributes and are converted to the database schema [4]. In the database, there are eight data tables. The tables are User, Admin, Review, Message, News, Expired_Vehicle, Driving_License and Vehicle_License. The figure 2 shows database design for all the data tables and their relationships of the database.

RESULTS

By creating this website, users can easily check vehicle license validity and driving license validity. The admin can easily edit and cancel the information about the licenses and can easily view the expired vehicles. This website has the advantage that users can directly ask the admin what they want to know, and the admin can also reply to the users quickly. There is no need to advertise the driving license test date on the notice board and the admin can announce the date in the news section for users to know through this website. This website is a comprehensive framework that describes smart and safe efficient transportation system for RTAD Hinthada. In addition, this website is intended to provide public information, news, updated policies, discipline and the history of the department. Road Transport Management System is a website designed primarily for use in road transport industries.

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Figure 3: Implementation of this System

CONCLUSION

The Road Transport Administration Department is essential for planning, developing, and maintaining road infrastructure, and for implementing policies that enhance the efficiency and safety of road transport systems. This Road Transport Management website serves as a powerful tool to manage and optimize the transportation system. The admin can take full control of the administrative functions and effective supervision using this website. This website provides a thorough framework outlining a smart, safe, and efficient transportation system for Road Transport Administration Department (Hinthada). Additionally, it aims to enhance the quality of transportation services and address the evolving needs of the public. Successfully meeting these requirements will not only improve daily transportation experiences but also significantly boost the socio-economic development of the region.

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