

Digital Authentication System For Driving License

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Abstract

In order to convert the manual authentication of a driver's licence into the digital authentication we have developed a web based application that can handle the verification process of a licence with the help of the user's aadhar number which is the primary key for accessing the user's details. By performing the digitalized verification process there is no chance of misleading of the licensed persons. The proposed system is highly reliable on the internet and more secure in terms of authentication by performing verification with the particular registered authority people only, who will be assigned by the department.

Keywords —License, Authentication, Digitalization, Secure

1.INTRODUCTION

Verification of a person is the process of validating the user's identity. There are different authentication mechanisms that can be used in order to verify the user's identity. All these mechanisms follow only one way that is –user's data present in the database will match with the information that is given at the time of registration. This will ensure that user pass the security system. Person's identity will be checking with the any one of the following three things *something you have, something you know, and something you are*. Something you have leads that user get into the system by giving or providing the Smartcards etc., something you know means the user credentials like usernames, passwords and PINs. Something you are means authentication done by using the Biometric or face recognition to gain access to the system. All these mechanisms may work differently but ultimately they lead the user's identification to get access for the system. In our paper we provide a one of the authentication mechanism in order to verify the user's identify in terms of have a Licence or not.

2. Review Literature:

As we exist in a world which grows in terms of digitalization in every prospective of today's life like cashless country and online services etc. we have to enhance remaining all areas where we can able implement the online services in order to development of country. as the generation grows all the people are

educated and so these services will be used more effectively and efficiently.

In existing authentication methods we can implement the current paper based verifications by using one of the mechanisms available and suitable for the system that we are going to implement. In a reference paper "A Review of Authentication Methods" from IJSTR has given a view of using some methods or mechanisms that are in present in the authentication stream.

3. Existing System:

The verification process in terms of Driving licence is done by only have a glance at the papers that provided by the Road Transport Authority to a particular Licensed person. This will creates a several problems during the verification of the Licence of a person as listed follows. And there is a one major trouble as some people misleads the people as they are the verifiers of the inspection process.

3.1 Problems in Existing System

- The Licence holder may forget his/her documents related to the Licence and he/she has to pay fine amount for that particular time of not carrying the documents.
- The fraud can be takes place in the inspection process as the duplicate document of the licence are showed and misleads the authority person.
- Some people may came like they are the authority persons from the transport department and collects the money from the people as there is nothing wrong with them.

4. Proposed System:

In this paper we propose a system that will overcome all the problems in the current exiting system of Driving Licence verification during Break Inspection. The proposed system is providing a web based application that has an API (Application Program Interface) which will be accessed by the particular people as the RTO department assigned.

These assigned people by the department are based on the divisions of the Traffic Police Department as they are the one who will have the right to make an Inspection process. These people will verify the person's driving licence by using *Aadhar Number and 4-digit PIN* assigned to the particular licensed person.

4.1 Advantages of Proposed System

- The licensed person can be easily identified with his/her Aadhar Number along with the 4-digit PIN.

- b. The time taken to verify a person's licence is much less than the previous existing system.
- c. The rate of fraud activities will be gradually decreased both in the view of people and the Government side.
- d. Perfect authentication is performed and there is no scope of misleading of the authority persons during the verification process.

5. Working of System:

In the process of performing the verification there are two phases 4 phases as mention follow.

1. Registration of Licenser
2. Assign PIN to Licenser
3. Registration of authority people
4. Verification

5.1. Registration of Licenser:

During this phase the Licenser will register under the E-Driving Licence System by giving his all details like Aadhar number, mobile number, personal information and submit his/her original documents of the Driving Licence. The registration is done at the RTO department office and there is only one Admin who can register the people under the system.

5.2. Assign PIN to Licenser:

The person who is register under the system will be given a unique 4-digit PIN which is linked with his/her aadhar number given at the time of registration. The generation of this-digit PIN is done by using the some Random Number generation Algorithms. The person has to provide this PIN along with the Aadhar number at time of Verification process.

5.3. Registration of Authority People:

The authority persons who will conduct this inspection process are register under the system and they will be given with the login credentials for accessing the system. By registering these people it can be viewable who conduct the inspection and at what time they conduct. These registered people only have the right to conduct Break Inspection processes.

5.4. Verification:

Final phase of the process is the use of this proposed application system in order to verify the licence of the user by the authority people by entering into the system. The following describes about the whole process of the verification.

5.4.1 Login into System

The authority people who are assigned by the department are login into the system by using the login credentials that

are given at the time of registration in order to verify the licence of the people. By entering into the system they can access the data of the users from the database by knowing the primary details of the user.

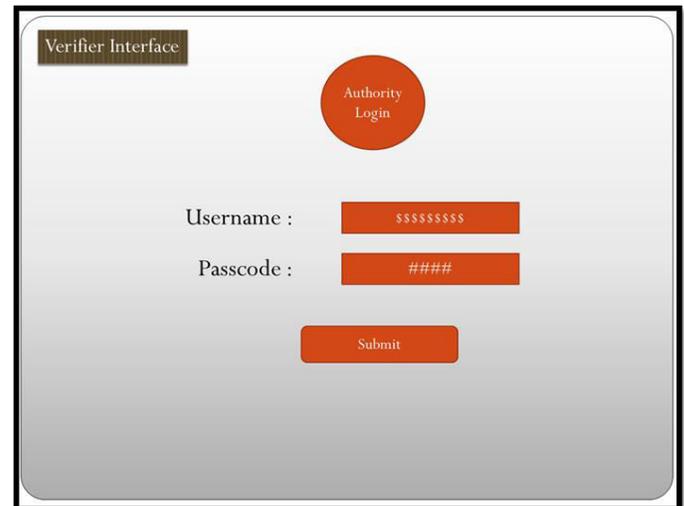


Fig 5.4.1 authority people login

5.4.2 Getting User Primary Details

After successfully login to the system the authority people will now get the primary details of the user like Aadhar Number and the 4-digit PIN number for getting their Licence status report card along with their photo identity.



Fig 5.4.2 Interface to enter User Primary details

5.4.3 Resulting User Status

By entering the user primary details the status report card will be displayed by validating the provided aadhar number and the 4-digit PIN number. The two scenarios

that exist by validating the primary values will be as follows.

5.4.3.1 Success Scenario

If the existing values are entered and the validation is successful then the status report card will be appear as shown in the below figure 5.4.3.1, contains the user details like Name, Aadhar number, Photograph, Licence Type, Licence Validity etc.,

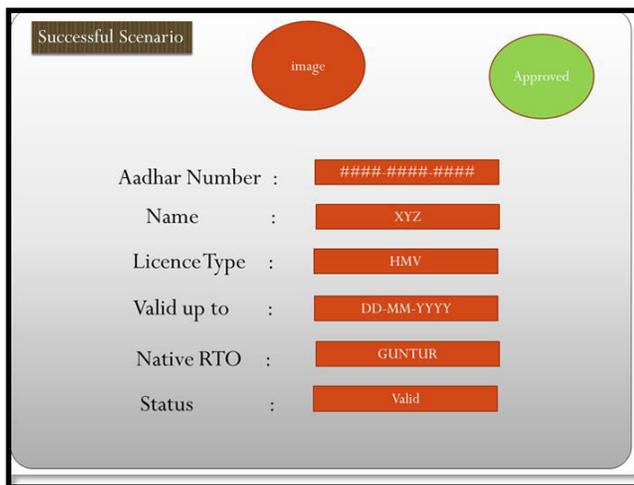


Fig 5.4.3.1 Successful Scenario of Verification

5.4.3.2 Unsuccessful Scenario

In this scenario, it results a unsuccessful attempt to getting the details of the user who is not registered under the E-Driving Licence System and shows an error message as shown below in fig 5.4.3.2.



Fig 5.4.3.2 unsuccessful Scenario

5.4.4 Actions Performed

After performing the above verification process the actions are taken against the users who leads to the unsuccessful scenario and one report card prepared and the fine system is applied on the users and as well the vehicle

6. Conclusion

The proposed system is the one of the best way of providing solution for the manual authentication of the driving licence. This will satisfies the present technological world with the way it authenticates. Technology driven process has been increased in every aspect of the Govt. processes. This one also become the one of the most useful and successful project

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