

Online Document Verification System

¹Mansi Sharma, ²Divyanshu Singh, ³Amar Tyagi, ⁴Mehak Mishra, ⁵Sharmila

Krishna Engineering College, Ghaziabad, Uttar Pradesh, India

¹mansisharma2224@gmail.com, ²singhdivyanshu1999@gmail.com, ³amartyagi0229@gmail.com,

⁴mehakmishra3215@gmail.com, ⁵sharmila1ece@gmail.com

Abstract: In this modern era, there has been a need for the reliable and fastest mode to verify a document or certificate, to reduce the level of duplicity which is done manually till now. Document or certificate verification plays an important role whereas a document or certificate issued by an authority will be verified for its authenticity. In a typical system, it will be performed through the interchange of mails or post, as it is not an effective and efficient process due to the human intervention. In this proposed system, a common database is organized between the admin and user to operate frequently and it will be more secured as there is no need for any third party involvement which provides direct communication between client and user. Using the proposed system, the authenticity as well as the integrity of the certificate can be verified, and the admin can verify the document and upload it to the portal.

Keywords — Database, MYSQL, Certificate, Encrypting, Token, Authenticate, Online Verification and Validation.

I. INTRODUCTION

One of the most often used means of exchanging information among people is the Internet. This method of electronic data transmission breaks all the barriers. Furthermore, everyone can be able to browse the same websites and have the equal chance for user to experience the Internet. In other words, the Internet should be easily accessible by everyone. Online Document Verification system gives the direction of the future document authenticating development. Promotion of Online Document Verification system will improve the speed and quality of services of Document Authentication.

Its framework is centralized on the need to adopt automatic online verification system that will save the barriers of manual verification method. This will enable anybody “to verify an institution certificate online, without having to come down to the school/institution to do so or to carry original document everywhere”. All that is required to log into the verification gateway and enter the certificate/document number of the document he/she wants to verify, then the original copy of that will be displayed on the screen along with the message as per the authenticity of the document. If the document number is valid then the document will be displayed with the message that the document submitted by the user is valid and authenticate. But if the document number is invalid, the following message will be displayed on the screen Invalid document as per our records as we don't have information of this person, it is either you made a typing mistake or the owner

haven't provided the correct information, Verify and try again.

The main objective of the system design is as follows,

Efficiency: It includes comprehensiveness, less time and accuracy of the desired system .

Flexibility: It has the ability of the software to cope with any changing requirement of user.

Usability: This is the ability of the software that it can be easily used and can learn or tolerate with long term operation by the user.

Security: It is an act of securing or to protect data and involves hardware integrity. System analysis requires having a secure platform to preserve the system from damage, error and unauthenticated person.

The main contribution of this paper is as follows,

- To implement an online document verification system.
- To remove manual method/paper work, though the user/institution have to keep their documents safely.
- To provide easy accessibility of various documents.
- To save time and Resources

II. LITERATURE REVIEW

Since the postal web world (2003), libraries have been seen as in risk of substitution. The web is becoming a big origin of information giving an in-depth and inclusiveness that leads to a mark on the value of libraries and their collections[1]. This review will not reflect on these later roles, but will focus on the certainty of changing

technology, the rising digital media and the changing social landscape that has changed user’s expectations of the online verification system. Digital libraries are located in different locations, so environmental components have also been explored for their influence on users' awareness, acceptance and use of practices often the social situations or backgrounds around the online verification system are very distinct, for example, they vary from institution to institution[2].

The test of whether a product or service, or program complies with a regulation, requirement, specification, or condition is called certification[3]. Authentication is a way to judge a document its authenticity and its validity. Valid documents are verified by their valid stamps and a verified signature.

“Nowadays the standard certification process is a written process, in this process the institution / organization seeking to verify the result will have to attend the university or submit a written request to confirm the result”.

The call will further go to library directories for safe files to look for the duplicate certificate, this is not really effective and efficient process, also sometimes files get lost while moving from one office to another, and in some cases, it get missed or be difficult to locate [8].

III. EXISTING SYSTEM

3.1 Digital Locker (Microsoft)

A digital locker or cyber locker is an online file or digital media storage service. It stores music, videos, movies, games and other media. The name was used by Microsoft as a part of its Windows Marketplace in 2004[4]. By storing files in a digit locker, users are able to access the stored file with the help of internet connections. Most (but not all) digital locker services require a user to sign up. Prices range from free to paid and various combinations of them.

Digital lockers, as opposed to simple storage services, are typically associated with Digital Distribution.

3.2 Digital Locker (by Government of India)

Digital Locker is one of the key strategies under the Digital India Program of the Government of India. A beta version of the program was released on 10th Feb. 2015, by Department of Electronics and Information Technology (Deity)[5].

TABLE 1 DIFFERENCE BETWEEN ONLINE VERIFICATION SYSTEM AND DIGITAL LOCKER

ONLINE VERIFICATION SYSTEM	DIGITAL LOCKER (BY GOVERNMENT OF INDIA)
Aadhar Card possession is mandatory.	Aadhar Card possession is mandatory.
The user may or may not be registered within the	The user is to be registered within the organization.

organization as this would be an independent system.

Space will not be fixed up-to any extent. Only 1 G.B. space would be given.

No need of third party as we ourselves would be verifying them. There is need for a third party to verify the documents.

The database will be maintained and updated by us so we are functioning as a central body. In this they are not centralizing so it might not be that much helpful to the organizations.

Digital Locker aims to reduce the use of virtual documents and authorize the sharing of e-documents across the organizations and the agency. The distribution of e-texts will be done through registered documents after verifying its online authentication [6-7].

IV. PROPOSED SYSTEM

This proposed system is based on the online verification or access of all the necessary documents of a person at anytime and anywhere easily. The necessity of the proposed system is as follows,

- Easy to carry documents online.
- Safe, secure, easy to use.
- Fast and efficient way of verification.
- Can act as a basic medium for every database.
- Chances of losing documents can be eradicated.
- No waiting in longer queue for verifications of documents.

The specification of this proposed system is as follows:

•**Aadhaar Verification** - The verification of documents of a person should be done through its Aadhaar identity only. Login should be done only when OTP is generated on the registered mobile number.

•**Security** - Fully secure because of Aadhaar verification and OTP process. Only authorized user can access the documents and automat logout system should be there (i.e. there would be only a small access session per login).

•**Online Management** - The documents are available & attached to the Aadhaar and can be monitored through it. Updating and deletion of documents is easy. Attachment of new documents is easy.

•**Easy to Carry** - Carrying the documents online is easy and efficient way of holding it. It always stored on that database online. Burden of carrying hard copy is exhausted. Submission is easy.

•**Safe & Secure** - Chances of loosing and wear & tear off of documents (hard copy) is reduced or basically exhausted. Time limit to access the verification account & automatic logout system.

•**Fast & Efficient** - Accessing of documents is easy and in a fast way. It is also time saving, therefore efficient way. It replaces the heavy & lengthy process of document verification which consumes a lot of time and saves time &

money both.

4.1 Implementation Requirements

The hardware and software requirements to implement the online verification system.

Hardware Requirements

- Workstation
- Space requirements according to the need of the data.
- Operating System (Red hat Linux)

Software Requirements

- Python
- Web server
- Oracle Database

Functional Requirements

- Webpage
- Android application

4.2 Methodology of the proposed system

Online Document verification forms an integral part of hypersensitive processes like enrolment and registration, and in cases where verified identity is important - such as at border stations], during bank transactions, passports, driving license, student identification documents and many more.

A unique identification used for this verification is user's 12-digit Aadhaar number.

The system will be online and automated. The system will be personalized to have each certificate number linked to the student's detail. Our Software System would automatically be verifying all required documents by entering the Aadhaar number. It is Software is web based as well as mobile application.

Each person or organization that want to check the authenticity of the document that must have the Aadhar number and type it into the field named as Enter Aadhaar Number. Fig.1. shows the dataflow diagram of proposed system. Fig.2. shows the flowchart of the proposed system.

It is the main objective of the system to provide an easy to use application that acts like a personal assistant by providing an uncomplicated confirmation of documents. To optimize process considering various user constraints as well as other information like location of activities, their duration, and travel signal strength depending on mode of internet connectivity:

- Provide access to user anytime and anywhere and connected to the central server.
- Provide a web interface and/or other application.

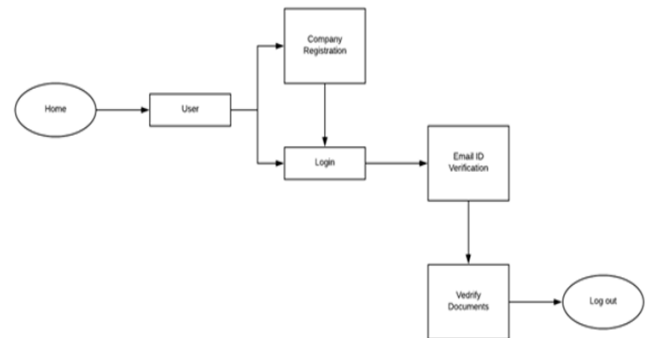


Fig. 1. A Dataflow Diagram of Online Verification System

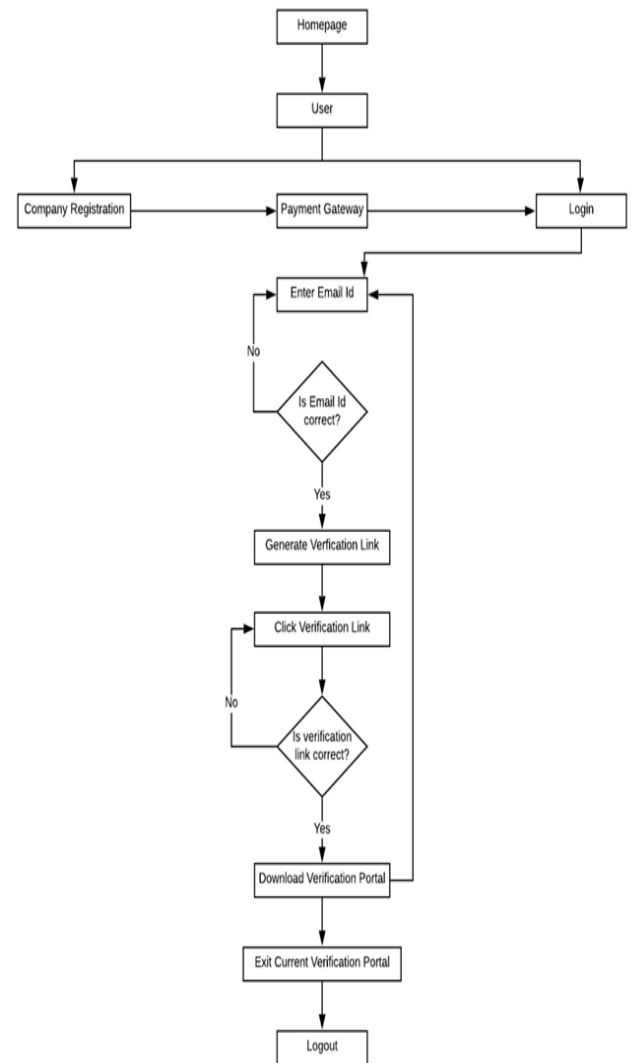


Fig. 2. Flowchart of Online Verification System

4.3 Result and Analysis

The system requires various hardware and software. Hardware consist of Operating system (Red hat Linux), Workstation etc. and the software consist of python, web server, XAMPP-win32-7.0.9-0-VC14-installer for (Apache Web-Server) and the functional requirement are webpage and the android application.

The system will verify the documents, certificate like aadhar

card, mark sheet and other government id etc. The document is stored in the database and only the admin can access the database, user can upload the document and the further process is done by the other authorities like for mark sheet of CBSE is verified by CBSE authorities etc.

The system consists of various modules and every module has its own functionalities. Every corporate have its own id and password, they can verify documents. If any company wants to check the user document then the token is generated on the user side and after using that token the company can also check the user documents, but they can't update or delete the user document. The result of the implementation and testing results are as follows:

4.3.1 Login and registration for online verification system

This is first user interface which will be used for further process regarding online verification system. It consists of registration page for the new user and login page for the existing user. Fig.3. shows the login and registration for online verification system.

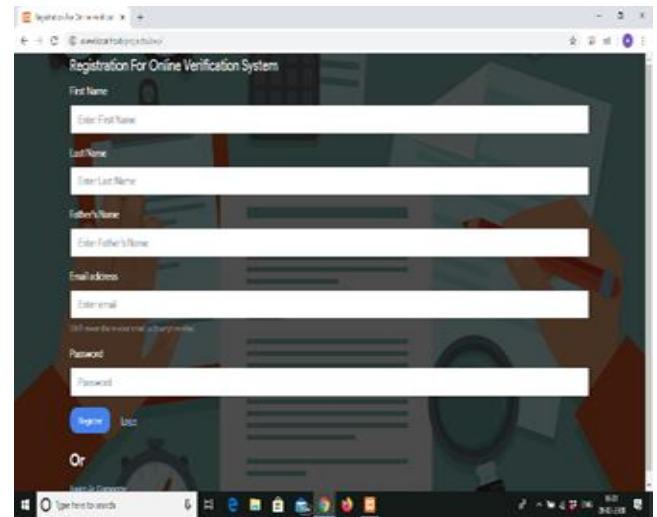
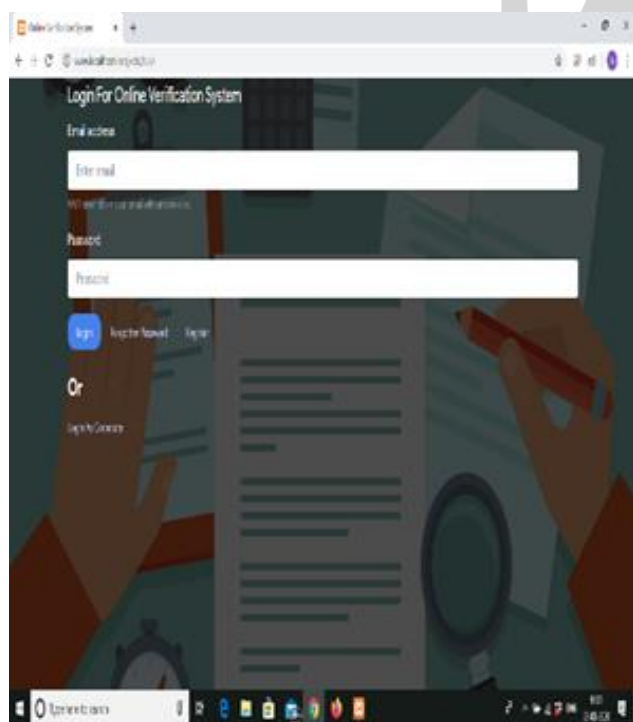
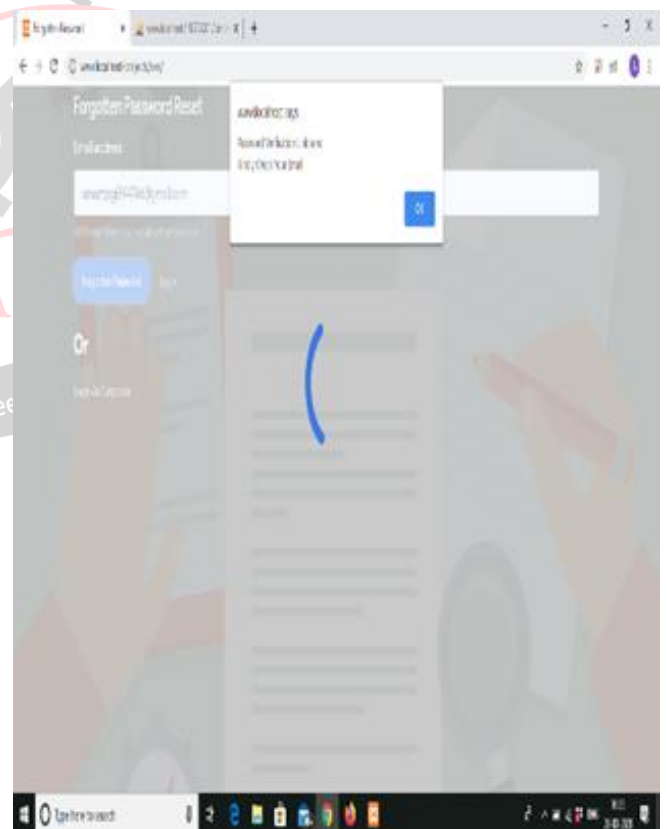


Fig.3 Login and Registration for Online Verification System

4.3.2 User notification and verification link to change Password

This interface of the system will come when the user click the “forgotten password”. In this phase the verification link for password will be sent to the registered email id, the user can reset password from that link. Fig.4. shows the user notification and verification link to change password.



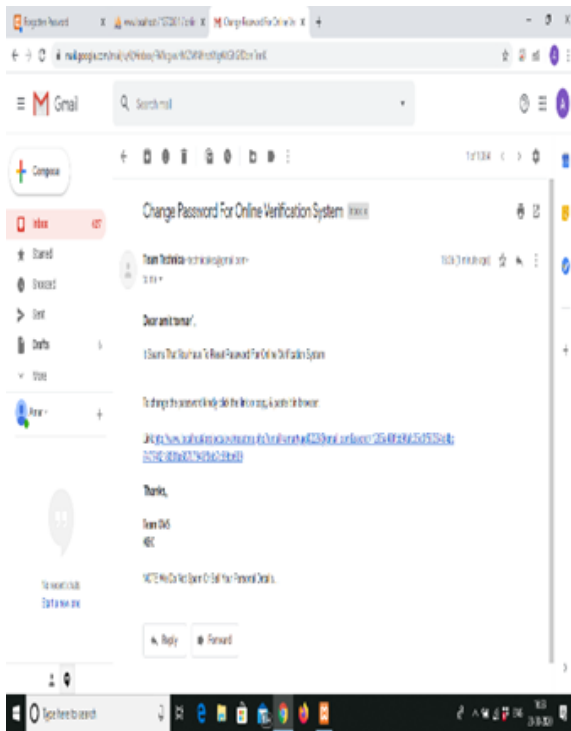


Fig. 4. User notification and Verification Link to Change Password

4.3.3. Document Verification

This interface will come after a successful registration in the system now, user can select the name of the document from the screen and then can successfully upload it on the system and the system will further verify that document. Fig.5. shows the Document verification process.

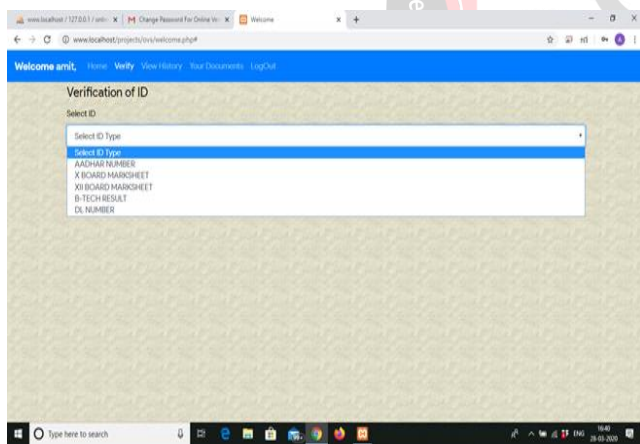


Fig. 5. Document verification

4.3.4 Token generated for verifying document

The token is generated for the verification purpose, when any corporate or any other user is checking our documents. The token is randomly generated for 60 minutes and the corporate can only check our document, they don't have any access regarding the deletion and updation of any documents. Fig.6. shows the Token generated for verifying document.

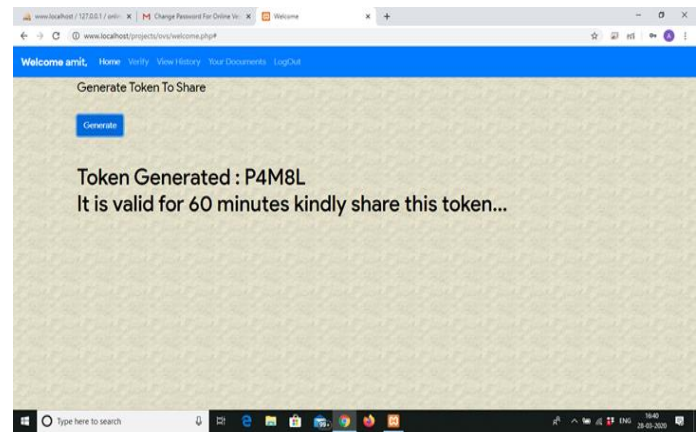


Fig. 6. Token generated for verifying Document

V. CONCLUSION

The proposed system offers the real possibility that various documents can be kept in safe environment. This paper looks at one of the areas where more power is needed. We first give the online platform to store the documents, using which a user can easily carry his/her documents without actually carrying them. Online Verification System will be a useful research tool that will open up new proficiency for verifying and confirming certificates before accepting it. It saves time and decreases errors to a minimum by comparing a manual method with a reduction factor. Secondly, one can easily verify the authenticity and validity of the documents submitted by the person. The authorized access can only be given after OTP verification. Before the submission of documents, they would be verified as the documents would be provided by the actual person as well as we ourselves would be verifying them personally. Security of the person can be assured as the session would be logged out after a limited time after OTP verification and to re-access the documents OTP verification is required again. Taking screenshot is also not allowed during the accessing of the documents. Online Verification system offers user convenience and significant ease to employers as they can get original documents more easily and faster than standard manual authentication methods. All though computerized verification systems have a number of leads over manual ones, there a few challenges that must be overcome in order that their benefits may be fully realized. First of all, there is the high initial cost of running such a system, as it is typical for all computerized systems. Hence, this system provides two facilities to the user like storing documents online and verifying them online as well as they would be secure also.

REFERENCES

- [1] Patrick Obilikwu., Karim Usman., Kenneth Dekera Kwaghtyo., A Generic Certificate Verification System for Nigerian Universities, 8(10), 137-148, (2019).
- [2] Yusuf, D.A., Boukar, M.M., and Shamiluulu., S. (2018). Automated Batch Certificate Generation and Verification System. Conference Paper. Retrieved from

[https://www.researchgate.net/publication/324531116_I
CECCO](https://www.researchgate.net/publication/324531116_I
CECCO)

- [3] Srushti, A.S., Sanket, M., Aman, T., & Tyagraj, S. (2014). Certificate Generation System. International Journal on Recent and Innovation Trends in Computing and Communication, 2(2), 380 – 383.
- [4] Hampo, A.J. (2011). Design and Implementation of Student Verification System. Retrieved.
- [5] Singhal, A., and Pavithr. R.S. (2015). Degree Certificate Authentication using QR Code and Smartphone. International Journal of Computer Applications, 120(16), 0975–8887. Retrieved from <https://docshare01.docshare.tips/files/29369/293691731.pdf>
- [6] Boukar, M.M, Yusuf, S and Mus, I. (2017). A Web Service Based Database access for Nigerian Universities' Certificate Verification System. Retrieved from https://www.researchgate.net/publication/312496824_A_Web_Service_Based_Database_access_for_Nigeria_n_Univrsities'_Certificate_Verification_System/link/5ab6474145851515f59b5580/download
- [7] Tint, S.S and Win, H.H. (2014). Electronic Certificates in E-Learning System. International Journal of Innovative Research in Science, Engineering and Technology, 3 (9), 16049-16054.
- [8] <https://www.igi-global.com/article/an-online-verification-system-of-students-and-graduates-documents-and-certificates/223223>
- [9] <https://www.google.com/url?sa=t&source=web&rct=j&url=http://www.jmest.org/wp-content/uploads/JMESTN42351206.pdf&ved=2ahUKEwiGrOSx1Y3qAhUw6nMBHWtiDTcQFjALegQIChAB&usg=AOvVaw3b2kxpKdrIbShu1peooFJG>
- [10] <https://www.itesoft.com/fraud-detection/>