

Digital Citizen Portal

Rajamurugan S¹| Shrihari M¹| Venkatesh K¹| Vetrivelvan K¹| Sharrath M²

¹UG Students, Department of C.S.E, Jansons Institute of Technology, Coimbatore, India.

²Assistant Professor, Department of C.S.E, Jansons Institute of Technology, Coimbatore, India.

Abstract: In our work we are planning to implement the digital India process in the secure data storage using blocks chain. Here the digitalization is needed in unique data maintenance for education system, health management, and shopping warranty handling. In the education system, unique card will be generated against each user. User's education information can be added by the education system, health records can be added by the hospital, shopping products warranty can be added by the shop agents. Here all the user details can be seen through the unique id. User's information's encrypted and stored in the database using AES algorithm. User can see all the details decrypted format only when they login the application only. User can maintain all the information's in the secure format and can download the duplicate at any time using our application. Our government is planning to do the same in all environments in the secure.

Keywords: Service Level Agreement(SLA), identity-based broadcast encryption (IBBE), Admin module, Data Security, Educational system, Authorization Verification



Check for updates

* DOI of the Article: <https://doi.org/10.46501/IJMTST0707027>



Available online at: <http://www.ijmtst.com/vol7issue07.html>



As per **UGC guidelines** an electronic bar code is provided to secure your paper

To Cite this Article:

Rajamurugan S; Shrihari M; Venkatesh K; Vetrivelvan K and Sharrath M. Digital Citizen Portal. *International Journal for Modern Trends in Science and Technology* 2021, 7, 0707067, pp. 172-174. <https://doi.org/10.46501/IJMTST0707027>

Article Info.

Received: 24 June 2021; Accepted: 14 July 2021; Published: 19 July 2021

I.INTRODUCTION

The cloud computing model integrates several technological advancements such as virtualization, web services, and Service Level Agreement (SLA) management for enterprise application. Now days our government is planning for digital India process. In this project we plan to develop the website in which citizenship information is maintained from birth to death in the same website. For every citizen a unique id card will be provided along with birth certificate. Citizens Education oriented details, Asset oriented details, bank transactions, Loan oriented information can be monitored and maintained in this website. For our assumption government will maintained this website. For each university, education institutes, schools and bank separate login will be provided. Citizen can able to download the documents and apply for correction in each document. Document verification and modification can be done only through concern department only. Government oriented certificates, can be easily applied by the citizen easily and can get in time durations. Server maintained can be done in cloud environment can their information are stored in encrypted format. Only concern department and citizen can see their information in decrypted format only.

2. SYSTEM ANALYSIS

2.1 EXISTING SYSTEM

In this existing system, Users all the information's are stored in the government server. Unique id is not maintained in the user wise. So duplication of each data's cannot be identified. For duplicate certificate information we have to go directly and get the information. Hospital related information is maintained in the hospital alone. Shopping related warranty information's are maintained in paper only. The user has to go to government office directly to get certificate for approval. Unique id maintenance for each user is not available here, when go for education system certificate maintenance is not done properly.

2.2 PROPOSED SYSTEM

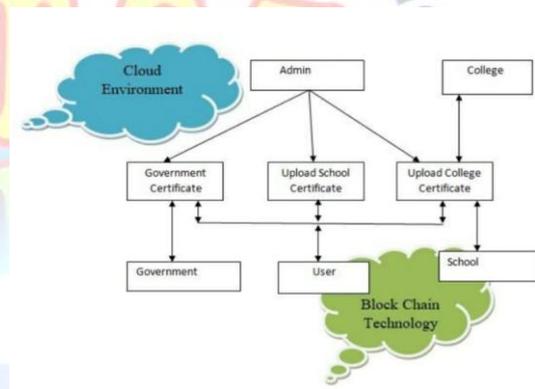
In this proposed system, Users all the information's are stored in the government server. Unique id is maintained in the user wise and so duplication of each data's cannot be identified. For duplicate certificate information we have to go directly and get the information. Hospital related information is maintained

in the hospital alone. Shopping related warranty information's are maintained in unique id Secure storage is maintained in the cryptography techniques. 7 The new born baby will be provided unique id card along with the birth certificate. The user login will be provided by the admin. Admin will give rights to various department so that user all government-oriented certificate can be uploaded by admin in every stages. While user enters the education system, his or her certificate related to SSLC, HSC, etc., will be uploaded by the education system.

2.3 ADVANTAGES OF PROPOSED SYSTEM

- User can apply for certificate and get certificate in time.
- Modification related to certification can be applied to concern department directly through Website.
- Once unique id is entered then entire history user can be viewed by the government.
- Tracking can be made easier.

3. ARCHITECTURE DIAGRAM



4. MODULE DESCRIPTION

4.1 Admin Module

In the admin module, add user with unique id, add department, add category, add type, add employee for each department, and can view information added from each department.

4.2 Education System

In the Education system, employee can add the user related information's like certificate, documents and information related to education in their end. Unique id related information's are stored in the database.

4.3 Data security

128-bit AES encryption is used for provide security to the user uploaded data. AES is a fast symmetric encryption algorithm. So the chance for attack and uploading time are reduced. If there occur any

unauthorized access an SMS alert will send to the authorized user.

4.4 Authorization Verification

Authorization is the process of verifying user's privilege to access something. In the proposed system, during unauthorized access to a 12 particular file an SMS alert system is used to inform actual owner. Each file uploaded in cloud has a unique file id. Authorized users can use this ID for downloading and editing their uploaded data.

4.5 User Module

Cloud users are the users who access the data from cloud server. Cloud users should register their details to the cloud for get permission to access the data from cloud. Data owner accepts the request from users, then share the specific key to access the data. Data users get key from owner then access the data on cloud.

4.6 Login Module

Each user is provided with unique username and password manually by the administrator. The user uses the username and password for login and exercise the Digital Citizen Portal. If incorrect username and password entered, the access to is denied to the user. This is the security feature provided against external access of the system. After login the user enters the Citizen portal home page, which provides the links.

4.7 Logout

This provides an option for the user to quit the session, After looking or upload the details in the Portal.

4.8 Block chain module

In this Block chain module, block chain is implemented for all login form, user information, and for Candidate information. The time stamp and block chain are implemented for all the histories.

5. FUTURE ENHANCEMENT

- Using strong passwords.
- Ensuring that communications are data encrypted.
- Completing regular system backups.
- Keeping operating systems up to date and applying security patches as they are released.
- Removing unnecessary third-party software.
- Installing firewalls and antivirus software.

6. CONCLUSION

In our work provides techniques of the Digital citizen site to store the user's certificate in secure format. User can easily download the certificates, can apply for certificates easily and can get certificates in time too. In future this updating can be implemented in police department, banking department to proceed further. Unique id maintenance to help the government to monitor the user easily.

REFERENCES

1. "Analysis of Electronic Voting System", Tadayoshi Kohno, Adam Stubblefield, Aviel D. Rubin, Dan S. Wallach. Proceeding of the 2004 IEEE Symposium on Security and Privacy (S&P'04).
2. A. D. Rubin. "Security considerations for remote electronic voting". Communications of the ACM, 45(12):39-44, Dec. 2002.
3. Adam Stubblefield, Aviel D. Rubin, Dan S. Wallach, and Tadayoshi Kohno "Analysis of an Electronic Voting System", in IEEE, May 2004.
4. Voting: What Is; What Could Be, July 2001. Available: <http://www.vote.caltech.edu/Reports/>.
5. Voting, "Gujarat online voting model system". Available: <http://sec.gujarat.gov.in/e-voting-system.htm>.
6. Ashwini Walake, Prof. Ms, Pallavi Chavan, "Efficient Voting system with (2,2) Secret Sharing Based Authentication", (IJCSIT) International Journal of Computer Science and Information Technologies, Vol. 6 (1), 2015, 410-412.
7. Himanshu Agarwal, G.N. Pandey, "Online Voting System for India Based on AADHAAR ID", Eleventh International Conference on ICT and Knowledge Engineering 2013.
8. Pranay R. Pashine, Dhiraj p, Ninave, Mahendra R, Kelapure, Sushil L. Raut, Rahul S, Rangari, Kamal O. Hajari, "A Remotely Secured E-Voting and Social Governance System Using Android Platform", International Journal of 32 Engineering Trends and Technology (UETT) - Volume 9 Number 13 - Mar 2014.
9. S.M, Jambhulkar, Prof. Jagdish B. Chakole, Prof. Praful. R. Pardhi "A Secured Approach for Web Based Internet Voting System using Multiple Encryption", 2014 International Conference on Electronic Systems, Signal Processing, and Computing Technologies, 2014.
10. Shivendra Katiyar, Kullai Reddy Meka, Ferdous A, Barbhuiya, Sukumar Nandi, "Online Voting System Powered by Biometric Security Using Steganography" Second International Conference on Emerging Applications of Information Technology, 2011.
11. Douglas W. Jones, "On Optical Mark-Sense Scanning" University of Iowa, Iowa City IA 52242, USA.