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LEDGER CONSERVANCE IN A LEGAL FIRM

Mr.S.Gokulakrishnan[1], Akilaa Vasudeva Rao[2]

[1]Assistant Professor, Department of Computer Science and Engineering, SCSVMV University, Kanchipuram
[2]B.E Student, Department of Computer Science and Engineering, SCSVMV University, Kanchipuram

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ABSTRACT

This project proposes the knowledge of sharing the data of their own, which is stored in a secured manner in the form of a ledger. A ledger is databases of recreating, shared, and concured digital data that is geographically spread across several sites in a network. Rather than having a central administrator like a traditional database, the ledgers have a system of synchronized databases that provide an auditable history of information and are visible to everyone within a network of security. The ledger will show the needed details based on the user or client query. We have used a precursor of Deep Chain Technology by the name Threshold Pallier Thereom in the back-end of application that creates an identification sequence for each person or employee in the firm based on their designation, thereby helping easier and safe access of data across various actors in firm.

Keywords: DeepChain Learning, Threshold Pallier Thereom

1. Introduction

It is a secure distributed electronic ledger, connecting multiple people in the network where we can transfer our data securely and also view those data which are shared with us. We implemented our concept in law firm where advocate and judge can share the confidential information safe and also view those details. The ledger which holds the drafting of document will stores multiple document provided by the advocate and the judge. The ledger who will act as admin, will create member Id for both the advocate and judge to make their information more secure, so that no other third party can theft their details easily. The client can also have their part by getting the overview of the case details which they are involved with required restrictions included.

The purpose of the project was to avail easy and theft-free platform to share and access required data based on client or advocate or judge's query. The ledger in the firm is the main source where data is stored in a chronological order to find, save space at the time of search. The implementation of project is to avail data digitalization in a firm to save important information over a disk rather than paper.

2. Existing System and its Drawbacks

In the Existing system, purpose is to achieve higher accuracy than traditional machine learning. Recently, privacy-preserving has anxiously been an immense issue from the information reliability community, in which training data are anticipated to be exposed. They presented a secure way to clarify these complications. Deep Chain provides a value-driven stimulus structure based on Blockchain to effort the contributor to behave accurately. Meanwhile, DeepChain security data includes privacy for each contributor and provides modified whole instruction process. We implement a precursor of DeepChain and performance investigation on a real dataset for dissimilar settings, and the results show that our DeepChain is encouraging.

Following are the Major drawbacks noticed:

1. Drafting the document takes more time for further process.
2. Modifying the privacy, data may lead to theft, the third party may be involved.
3. Data storage also makes complex.

3. Proposed Work and its Merits

Our main goal is to share the data privately and view the data publicly. Machine Learning focuses on the development of computer programs that can access data and use it to learn for themselves.

So, we proposed the method of threshold in distributing the ledger, which is to organize the whole process to start. The ledger will place or update the details in a different manner and also the law prospect the client or advocate can get the information from it. The advocate can feed their details regarding the case which they have taken it. A case history will be useful for judges who can refer it for their future purposes. All the information which was collected by those patterns will be exhibited differently and the member ID will be generated individually for different users. We executed this process with the algorithm based on the threshold paillier theorem. That information will be shared and viewed in that particular area other than these no third party cannot view that information. So, the algorithm process will be executed in the advocate and judge part who will act as private. The ledger will act as the public who will show the details based on the user search and also generate Id to the private sector peoples.

Following are the Merits in the proposed system:

1. Using scripted text, smart contracts and automated contract reduce excessive time spent preparing standard law documents.

2. Democratizes access to the justice system by cutting down on consumer complexity and lowering hefty legal fees.
3. Decreases the cost of clients by drafting and amending the documents.
4. The lower cost will increase the overall demand and accessibility for legal services.

3.1 Proposed System Architecture

It is a secure distributed electronic ledger, connecting multiple people in the network where we can transfer our data securely and also view those data which are shared with us. We implemented our concept in law firm where advocate and judge can share the confidential information safe and also view those details. To share those details they will get an individual key to upload data. And also get approval from the ledger.

The ledger who holds the drafting of document, will store multiple document provided by the advocate and the judge. The ledger will act as admin and create member Id for both the advocate and judge to make their information more secure. The case files to be stored in database are denoted by individual id.

The client can also have their part by getting the overview of the case details which they are involved. These details will be provided by the ledger who holds the multiple documents and also allow or block the details based on the information which are needed to be shared to the client by using the individual id number Id.

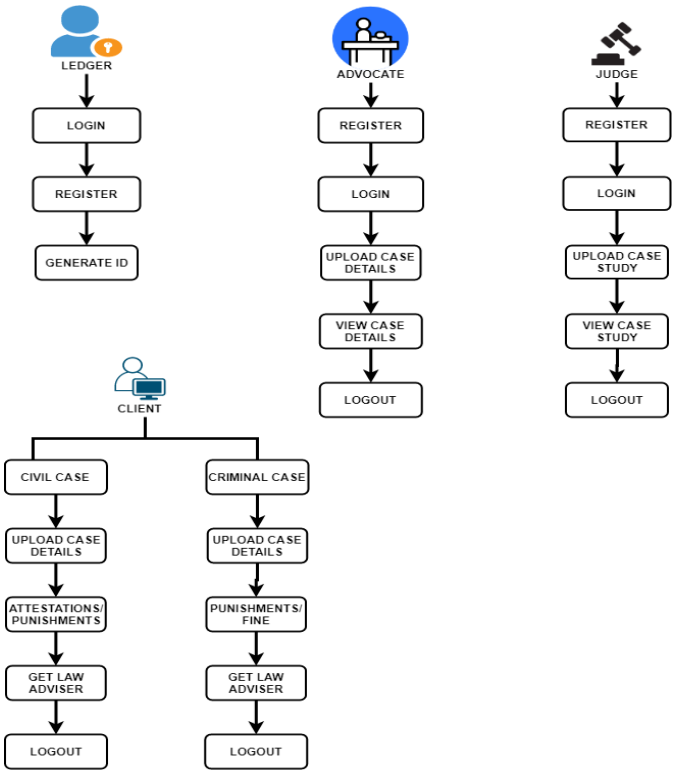

Figure -1: System Architecture

4. Results and Discussion

We coded the entire application in Microsoft Visual Studio using ASP.NET, SQL server Management Studio to design the back end and also, little tiny bits of code of JavaScript to connect the back end and front end. The testing of software built was the actual development stage to update many features in the application designed. For Testing, We used a chrome web browser to display output. Some of the output results are displayed using screenshots while execution:

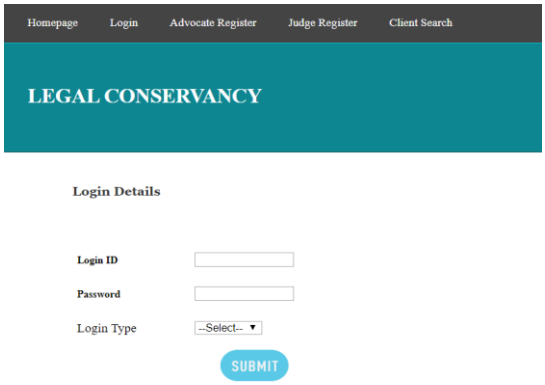

Figure-2: Login page to each individual to login into home page to perform individual activities.

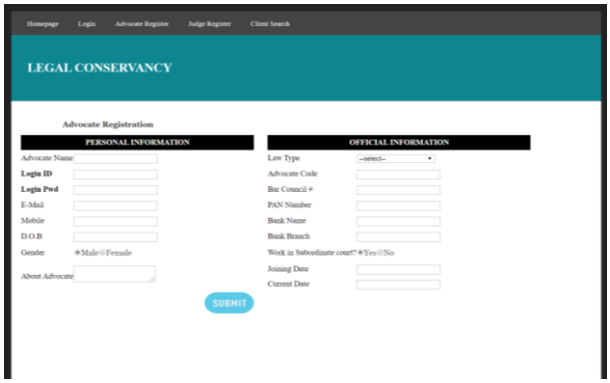

Figure-3: Advocate register page is for registration of any new advocate added to the firm. All the details required are to be added and a generalized Id will be created by ledger.

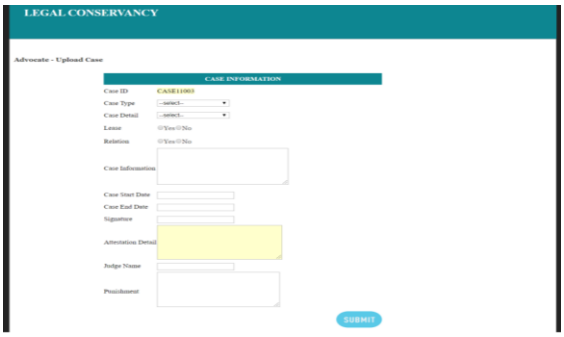

Figure-4: Upload case-Advocate: Here Advocate can upload his/her case details accordingly.

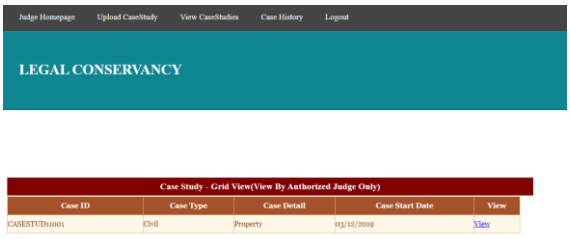

Figure-5: View Case-Judge: Here the Judge can view concerned case history using the case id of each and every individual case.

Also, the judge can view cases under his homepage just like the advocate performed it. Similarly, Judge can add case study details in his homepage.

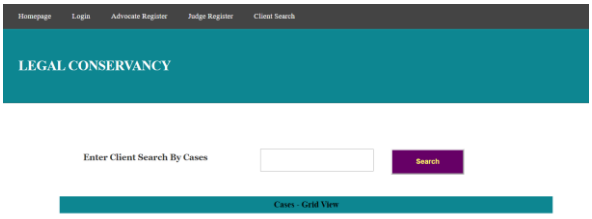

Figure-6: Client Search: Ledger uses this page to search any particular client using the type of case an individual case id.

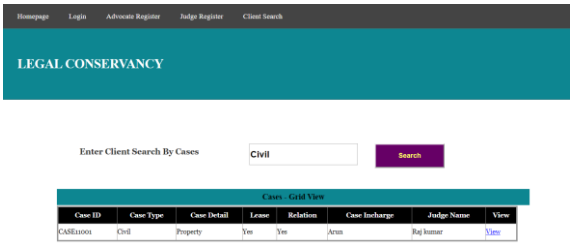

Figure-7: Client Search Result: The result of the search looks like as shown above.

5. Conclusions And Future Work

We have achieved the above process with the help of machine learning and also the algorithm based on the threshold paillier theorem to create a private Id where the person who has those Ids only can share the information and also view the details whenever they needed, with that the security process is re-defined and analyzed. This project, says about the process of creating the Id which should be in the local confidential gradients and those people's can upload the details and also view other person's detail within the particular area. Overall view of the project is to share legal documents and issues based on the law firm.

Our future work is based on making this more convenient to the public who can access this process more easily from anywhere and with a safer security of data share accordingly due to enhancement. If this is achieved every client can access it using net with required encryption at each stage. Hope we achieve it one day for sure.

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