DESIGN AND DEVELOP CERTIFICATE VALIDATION SYSTEM USING SMART CONTRACT

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Abstract: As per us information, near about one million student pass out from college each year, after completion Degree or Graduation some of student will be ready to enter the workplace employment. During all education, the students get performance certificates and marksheet year wise, etc., this document will become an important for admission of new colleges or new works. As schools make various awards or diplomas, only the names of the schools and the students are input. Due to the insufficiency anti-forgery cases, events that cause the graduation certificate to be fake often get observe. In order to solve the Problem using digital certificates, the digital certificate system based on blockchain technology would be proposed. Due to the original attribute of blockchain, the online certificate with anti-counterfeit and verifiability could be made. The procedure of issuing the digital certificate in this system is included. First, generate the E-certificate and certificate serial number using hash function also after generate QR code.

Keywords - Blockchain, Digital certificate, Hyperledger, Hashing

I. INTRODUCTION

Data Mining is the discovering patterns in large data sets. Include technique at the intersection of expert system, statistics, and database systems. Data mining is associative subset of computer-aided learning with a generally aim to extract data (with quick technique) from a data file and convert the information into a understandable formation for further use. Data mining is the assessment step of the “understanding database” process. Apart from the raw examination step, it also require data-collection and data management angle, data pre-processing replica and connection considerations, snooping metrics, difficulty thought, post-processing of find structure, visualization, and online updating. The term “data mining” is in truth a contradiction, because the aim is the extraction of structure and knowledge from huge quantity data, not the extraction of data its own. It also is a catchword and is regularly applied to any form of huge quantity of data or information dealing with also any application of computer decision support system, as well as expert system and business intelligence. The book Data mining: actual machine learning tools and tactic with Java was initially to be named just applied machine learning, and the phrase data mining was only attach for peddle cause. frequently the more general condition data inspection and analyze or, when mention to genuine procedure, expert system and machine learning are more suitable. Advances in information technology, the wide availability of the Internet, and common usage of mobile devices have changed the lifestyle of human beings. Digital currency, digital coins originally plan for use online, has begin to be highly affect in real life. Because of the good of the Internet, different digital currencies are booming, including the most amateur—Bit coin, Ether, and Ripple the principle of which has flow lately, community are outset to pay consciousness to blockchain, the foundation hi tech of these total. Block chain features a decentralized and incorruptible database that has high potential for a diverse range of uses. Block chain is a distributed database that is widely used for recording distinct transactions. Once a consensus is reached among different nodes, the transaction is added to a block that already holds records of several transactions. every block contains the hash value of its last part for connection. All the blocks are connected to every one they form a blockchain. Number of Data are distributed among various nodes and are thus scattered. As a result, the every nodes maintain the database jointly. Underneath blockchain, a block became verify only once it has been certified by multiple group. inter, the data in blocks can’t be alter aimlessly.

II. SYSTEM ARCHITECTURE

System architecture would be to show the relationship between different components. systems which include hardware and software and these component are represented in the diagram to show the interaction between them. System is based on generation of E-certificate + certificate serial number and QR code for
students to digitize the document verification system which will reduce the working time and increase the
digitization in educational field.

This system architecture totally depends on 3 main
caracter, college, student, company. when student take
admission that time he apply for E-certificate. after
successfully registration he login and submitted all
document like marksheet to the college. After submitting
document every student get unique E-certificate + E-
certificate serial number plus QR code. this QR code are
printed on student resume so when student are apply for
any company that time he only carry resume. no need to
carry any marksheets and other document. only submit
resume in company. after that company are send to
request to college for student verification. once college
are verified student are valid or invalid. if student are
valid college reply to the company yes, student is valid
then company scan the document QR code through.

III. SYSTEM IMPLEMENTATION

Figure 1: Block Diagram of proposed system

Figure 2: Home page

Figure 3: Login modules

Figure 4: Empty field validation

Figure 5: Password field validation
Figure 6: Invalid user validation

Figure 7: Login

Figure 8: Registration

Figure 9: Student data

Figure 10: Representation
IV. FUTURE SCOPE
Blockchain structure can also be used in hospitals for saving the overall details of the hospital.

V. CONCLUSION
Data security is one of the major features of blockchain technology. We develop digital certificate using blockchain, this system reduces the likelihood of certificate forgery. It also reduces the chances of missing documents. The process of generating e-certificate and QR code is very useful for paperless work. Companies or organizations can thus inquire for information on any certificate from the system. In final result, the system assures information accuracy and security.

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