

UTILIZATION OF BLOCKCHAIN IN STUDENT RAILWAY PASS PROCESS

¹Akshay Mhatre, ²Shirish Yadneshwar, ³Prof. Shubhangi Mahadik

¹Student, ²Student, ³Professor

¹Master of Computer Application,

¹Bharti vidyapeeth's Institute of Management & Information Technology, Belapur, India

Abstract: Blockchain is one of the rising advancements in this day and age and a ton of upset and research has quite recently started in regards to this circulated innovation. Blockchain is a decentralized ledger used to securely exchange digital currency, perform deals and transactions [1]. It guarantees an abnormal state of security as the exchanges which happen are completely mysterious. Every exchange or computerized occasions occurring in a Blockchain system is confirmed, just on the off chance that it is settled upon by the agreement of the larger part gathering of the clients partaking in this procedure. this paper portrays how the blockchain technology may execute in Students railway pass.

Index Terms - Blockchain, student Pass, Student, Bank

I. INTRODUCTION

Blockchain gives shared exchange stages that utilization decentralized capacity to record all exchange information. Blockchain applications are utilized in various ventures. These ventures are computerized securities exchanging industry, the advanced personality industry, verification of possession industry, shared exchanges industry, organize the foundation industry, and so forth. In light of their phase of advancement Blockchain applications can be partitioned into three general classes in particular: "Blockchain 1.0", "Blockchain 2.0", "Blockchain 3.0". The primary class contains cryptographic forms of money, the second classification speaks to a computerized convention, and the last class is where the savvy contract idea is created. It can for example create an environment for digital contracts and peer-to-peer data sharing in a cloud service [3].

usage of blockchain innovation into student pass process offers Exchange chronicles are winding up progressively straightforward. Since blockchain is a kind of circulated record, all system members share similar documentation rather than individual duplicates. hat shared adaptation must be refreshed through accord, which means everybody must concede to it. To change a solitary exchange record would require the adjustment of every single consequent record and the intrigue of the whole system. In this way, information on a blockchain is increasingly precise, predictable and straightforward than when it is pushed through paper-overwhelming procedures. Blockchain will help in establishing a direct link between students, college department, bank and railway authority. When you utilize conventional, paper-overwhelming procedures, exchanging anything is a tedious procedure that is inclined to human mistake. By streamlining and mechanizing these procedures with blockchain, exchanges can be finished quicker and all the more effectively.

II. LITERATURE REVIEW

There is no precluding the significance of securing training for the improvement headway of a nation. Thusly, it is dependably been a battle to discover creative advancements, for example, blockchain, to aid the instruction field. some Universities accepts course Payment via Cryptocurrency. The King's College in New York, University of Nicosia, and Simon Fraser University in BC have begun to accept cryptocurrency as payment for tuition class fees[2].

some Universities started Certification on the Blockchain, like MIT, are experimenting with programs where graduates have their diplomas Certificate available on an app built on blockchain technology. Graduates are then empowered to impart their qualifications to whomever they like and the confirmation is undeniable as a result of the security and inalterability of ledger technology. Blockchain guarantees helps to control corruption by its open decentralized transparency in trusted network and/or compliance through smart contracts [4].

There is no literature found in the area of Blockchain technology and Student Railway pass system. Not a single study describes the process of Blockchain implementation in student Railway pass. However in Student railway pass system Blockchain technology is missing in the literature. Therefore a lot of scope is exists for the research in same area.

III. BLOCKCHAIN MODEL FOR STUDENT RAILWAY PASS PROCESS

The process starts with the college Department collects the information of students applying for railway pass. Collected information directly stored on the cloud through the Blockchain model. Uploaded information validate by all active members in network, they can be college authorize person or person in railway student pass department. After completing student Validation, Student can directly add information on cloud means can register by self. This reduces the problems as Blockchain gives transparency in all process. The Blockchain model for Student Railway pass System is depicted as below:

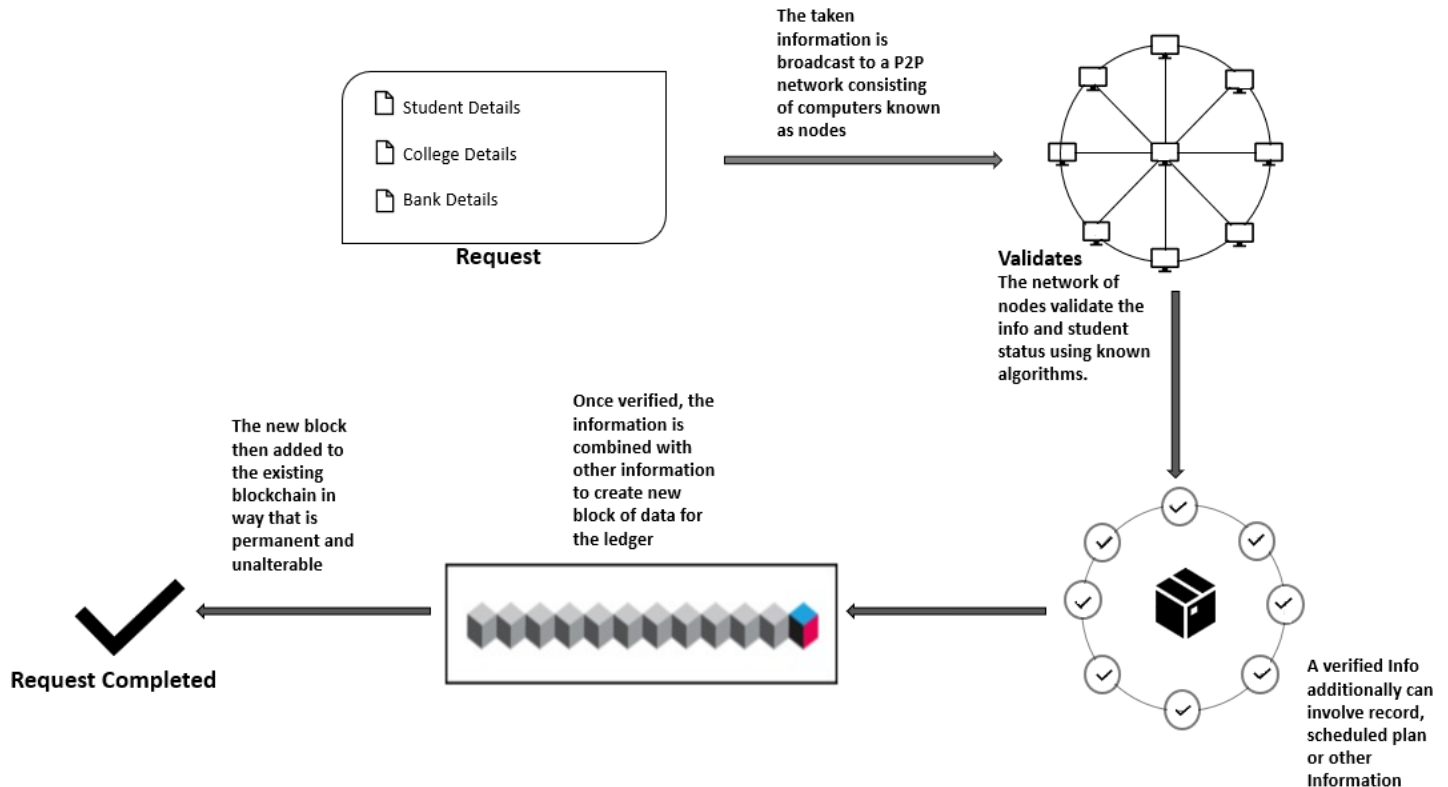
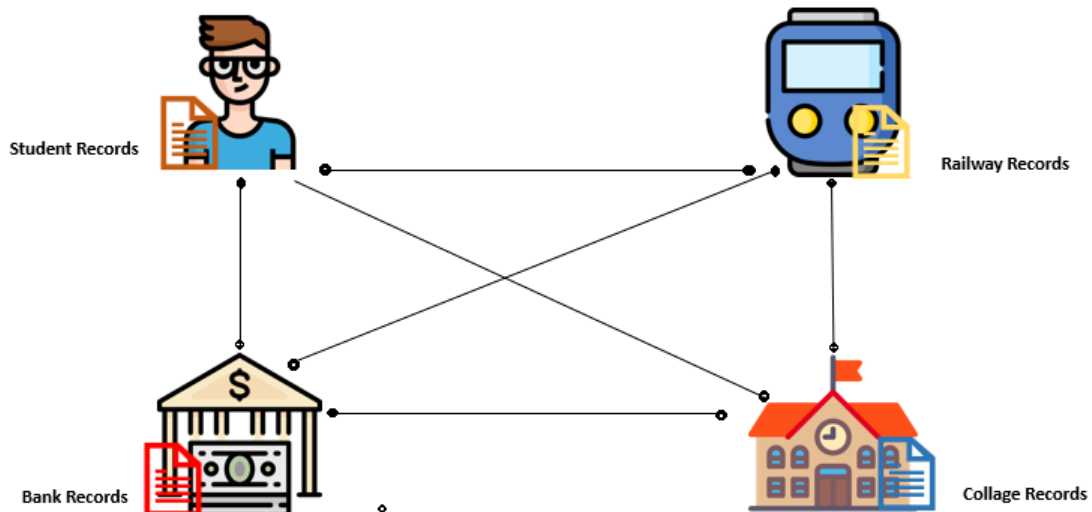


Fig.1: Student Railway pass Blockchain Model

IV. ADVANTAGES OF BLOCKCHAIN MODEL USED IN STUDENT RAILWAY PASS SYSTEM

- Blockchain model provides transparency, in a distributed ledger every transaction is recorded publicly.
- saves time and cost of Processing.
- avoids lots of Paper work.
- provides Security, with no central point to be exploited the system is protected against hacking attacks and fraud.
- Transparency in service between student, college department and Railway Office.

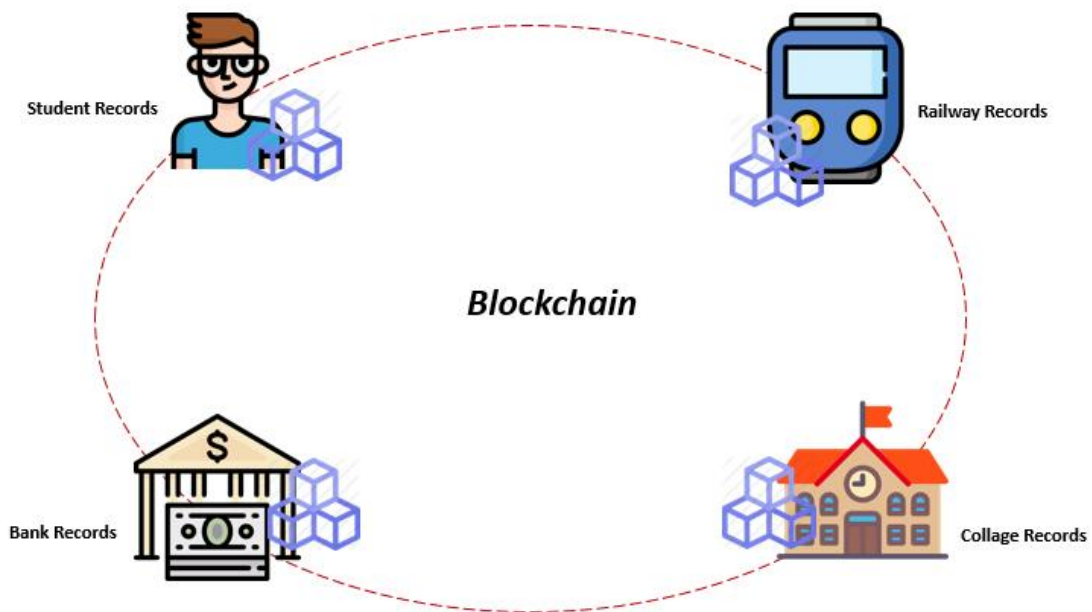
**Problem..
(without Blockchain)**



..inefficient, expensive, vulnerable

Fig.2: Process without Blockchain

A Shared replicated, permissioned ledger..



..with consensus, provenance, immutability and finality

Fig.3: Process with Blockchain

V. CONCLUSION

Blockchain provides single source of truth, the records cannot be mutated. The Blockchain applied model is beneficial for a reliable source of information to the Student, college Department and railway authority. Using blockchain in student railway pass system all the process is more transparent and secure. There is no need to create and store different student, college and railway records, because blockchain use algorithm and creates common ledger for all and also it is easy to update records. It also saves paper work and time.

REFERENCES

- [1]. Sachchidanand Singh ,Nirmala Singh,” Blockchain: Future of financial and cyber security”,2016 2nd International Conference on Contemporary Computing and Informatics (IC3I), INSPEC Accession Number: 16854974,Management-2016.
- [2].<https://medium.com/@impactchainlab/4-ways-blockchain-could-change-the-education-system-988fc7c3db42>
- [3]. Swan M. Blockchain: Blueprint for a New Economy. “O’Reilly Media, Inc.”; 2015.
- [4].<https://www.finder.com.au/indiagroundbreakingagricultural-blockchain>
- [5]. Supriya Thakur Aras ,Vrushali Kulkarni, PhD ,“Blockchain and Its Applications – A Detailed Survey”,International Journal of Computer Applications (0975 – 8887) Volume 180 – No.3, December 2017.
- [6].<https://medium.com/@intervalueproject/todays-blockchain-technology-has-undergone-several-iterations-50e7a0e037e3>

