

# Smart Contracts Transaction System with Blockchain

VAIBHAV SAWANT<sup>1</sup>, ASHISH MORE<sup>2</sup>, BHAVIK KUMAR SHIVHARE<sup>3</sup>, NEHA RATHI<sup>4</sup>

<sup>1, 2, 3</sup> Department of Computer Engineering, University of Mumbai, Rasayani, India.

<sup>4</sup> Department of Computer Engineering, University of Mumbai, Mumbai, India.

**Abstract-** *Blockchain technologies and sensible contracts are becoming a trend currently as a result it ends up in a recognized analysis field in technology and analysis workers unit incessantly sorting out new frontiers for complete clean technology. Just because microservices unit gaining heaps of and heaps of quality these years and credit goes to their belongings that let the teams divide the prevailing system into very little, and freelance facilities, so it'll develop many by entirely totally different teams. A bit model applies to sensible contracts. However, as that's distinct, inaccessible, practicable code, characteristically applying modest and autonomous tasks provided by the contract. This shows that it's likely to execute a degree modest microservice-based system with a sensible contract containing a similar form of functions and results. The result would be very helpful like sensible choice were not exclusively the information integrity in basic terms, but besides code, computer file, or different sources ought to be trustable.*

**Indexed Terms-** *Blockchain, Good contract, Microservices.*

## I. INTRODUCTION

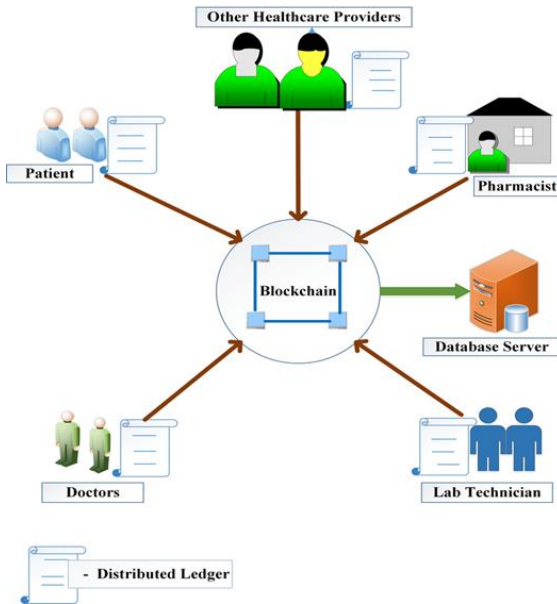
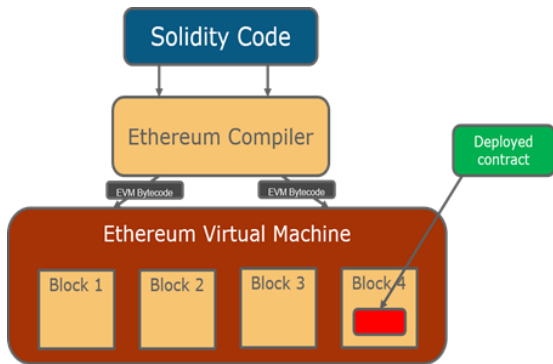
Microservices architectures become a lot of and a lot of ancient presently. These provide very little or no and autonomous services that deploy severally. It's one created public purpose. These properties provide variant edges. They're progressing to be developed in varied programming languages, we tend to a part of activity ready to scale it severally from altogether entirely totally different services, that they're progressing to be deployed on the hardware that suits their desires. Unit they're easy to stay up as a result of their size that they're fault-tolerant. The model is exploitation blockchain technology by directly a doctor and client or patient communication. So, there will be no agent or third party for money transactions or policy issues. So, it's going to deflate expenses and

a third party or agent charges. The transactions unit of activity crystal clear. It is a time-saving methodology as a result of simply merely simply just in case of a policy or insurance shopper or patient can directly contact to doctor or connect dispensaries. The model is to observe blockchain technology by directly a doctor and consumer or patient language. Therefore, there'll be no agent or third party for cash transactions or policy problems. Therefore, it'll reduce expenses, and a 3rd party or agent charges. The transactions unit crystal clear. It's a time-saving technique as a result of merely simply just in case of a policy or insurance consumer or patient will directly contact to doctor or connect dispensaries.

## II. LITERATURE REVIEW

The Ethereum blockchain and along with the employment of fantastic contracts unit of activity quite recent topics at intervals the technology literature. The Ethereum white and yellow papers issued in 2013/14 describe the aim and magnificence of Ethereum blockchain, of the Ethereum Virtual Machine (EVM), of the Abstract Binary Interface (ABI) need to put in writing programs written throughout a high-level communication into the computer memory unit code managed by the EVM. Since then, the design, however, as a result of the Solidity communication, evolved, many researchers began to appear for applications and to analyses sensible contracts structure and potential. As already expressed, sensible contracts unit of activity self-contained programs that unit of activity deployed into the blockchain surroundings where the Ethereum Virtual Machine (EVM) executes them throughout a decentralized theme. The area unit going to execute any quite computation and have a storage out there where data and state are saved. Sensible contracts interaction unit managed through the Web3.js library that permits external users to line contracts variables to call contract functions and to induce data from a wise contract. Sensible contracts might also move with

every altogether entirely totally different since contract will send messages to numerous good contracts at intervals the blockchain.



### III. PROPOSED SYSTEM

Nowadays as we have got seen that in many industries the third party or agents get introduced to the purchasers or shoppers. So, in such cases shoppers and homeowners every need to pay charges to the third party or agent between them. To cut back this expense this project gets introduced. Typically, the agent or third party doesn't work properly or prove a delay in your technique that's time-consuming. Typically, such delays cause shoppers and homeowners quite money. Even usually policies don't describe properly or prove some issues. Such systems provide third parties, or they're progressing to introduce agents

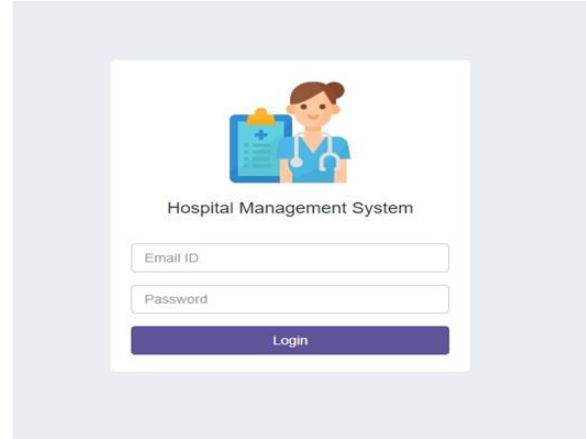


Fig: Application Login Page

Micro-service and blockchain technology is compared. A blockchain is additionally a decentralized, distributed, and general public, digital ledger that is needed to record transactions across many computers so any involved record cannot be altered retroactively, whereas not the alteration of all resultant blocks. Throughout this project their unit of activity four parts like shopper, doctor, patient, and sickness. At intervals the customer module, the customer can submit patient id, quantity, and sickness to the doctor. At intervals the doctor module, the doctor can submit patient id, appointment date, patient, and sickness to the customer. Patient module, the patient can submit the patient id, name, and email to the doctor. At intervals the designation module, the designation can submit id, name, and description.

### IV. PROJECT ANALYSIS

The model is using blockchain technology by directly a doctor and client or patient conversation. So there will be no agent or third party for money transactions or policy issue. So it will reduce expenses and a third party or agent charges. The transactions will be crystal clear. It is time-saving method because in case of policy or insurance client or patient can directly contact to doctor or related dispensaries.

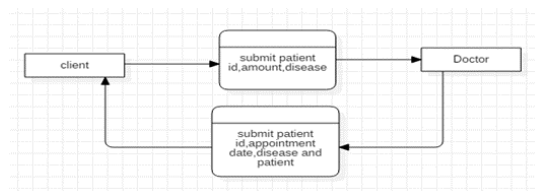


Fig. Client to doctor module

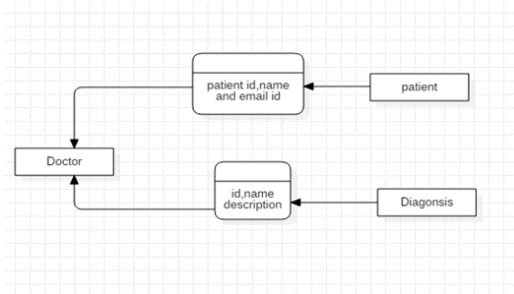


Fig. Doctor to Patient module

• Data Flow Analysis :-

- i. Client-Doctor module: In client module, client can submit patient id, amount and disease to the doctor for a related patient diseases using there id and the cost charged for the medicines.
- ii. Doctor-Patient module: In doctor module, doctor can submit patient id, appointment date, patient and disease to the client. Doctor will describe the Patient Id, Appointment allotted to the Patient for treatment and also there Diseases

CONCLUSION

Throughout this paper we've a bent to afford the matter of mapping a general microservices, 'code vogue into a code vogue acting identical tasks and providing identical services organized by mean of a gaggle of corresponding sensible contracts running onto a blockchain. With the help of blockchain, a blockchain is additionally a decentralized, distributed, and general public, digital ledger that is accustomed record transactions across many computers so any involved record cannot be altered retroactively, whereas not the alteration of all resultant blocks.

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