

# **DOCTOR HERE**

**Name:** ROGITHKUMAR.B

**Roll.No:** 2019202047

**Batch:** 2

**Project Guide:** Ms.P.S.APIRAJITHA

## **ABSTRACT**

One of the most important discoveries and creative developments that is playing a vital role in the professional world today is blockchain technology. Blockchain technology moves in the direction of persistent revolution and change. It is a chain of blocks that covers information and maintains trust between individuals no matter how far they are. Key concerns with blockchain applications in healthcare includes Network infrastructure security at all levels, Identity verification and authentication of all participants, Uniform patterns of authorization to access electronic health information.

The application will have three sides, One for Doctors and another one for patients and admin to manage both. The Doctors can voluntarily register themselves on our website for their particular profession and the people who are in need for a particular profession doctor they can approach that doctor with their appointment time. And if the doctor is okay with their appointment he/she can accept their proposal and he/she will consult virtually. The same information on the blockchain could allow individual patients to easily unlock and share their health data with other providers or organizations, through a shareable private key. This could help to make health information technology (HIT) interoperable and collaborative between different users.

Solidity language is used to write smart contracts, and with the help of ganache we can deploy the contracts. It gives the GUI to view the blocks, ethers and gas used for transactions. We also use web3.js which is a Javascript library used to connect the deployed smart contract through the front end UI. This will be a web based application. Tools and Technologies: Remix IDE, Solidity, Ganache, web3.js, HTML5, CSS5, Bootstrap and JQuery.

## **PROBLEM STATEMENT**

The existing system stores the medical records of the patients in the Databases. It had less security to maintain the records. In this project, the system will store the data and records of the patients in the Ethereum Blockchain. Blockchain technology increases the security in medical records.

## **INTRODUCTION**

- The rapid uptake of digitization in healthcare has led to the generation of massive electronic records about patients. Such growth poses unprecedented demands for healthcare data protection while in use and exchange.
- The rise of blockchain technology as a responsible and transparent mechanism to store and distribute data is paving the way for new potentials of solving serious data privacy, security, and integrity issues in healthcare.

- A blockchain technology is identified as a distributed ledger technology for peer-to-peer (P2P) network digital data transactions that may be publicly or privately distributed to all users, allowing any type of data to be stored in a reliable and verifiable way.
- Another main concept of the blockchain is the smart contract, a legally binding policy that consists of customizable set of rules under which different parties agree to interact among each other in the form of decentralized automation.
- The blockchain technology has given rise to numerous smart contract applications in several areas, ranging from energy resources, financial services and healthcare.

## **MODULES**

- Patient
- Admin
- Doctor

### **PATIENT MODULE:**

- Patient needs to register and login
- Patient need to Search for the doctor
- Send request to the doctor to check the availability for consultation
- Connect with the doctor virtually
- Pay for the consultation
- Get the eprescription

### **ADMIN MODULE:**

- Approve doctor identity
- Manage patient and doctor details
- Manage payment details

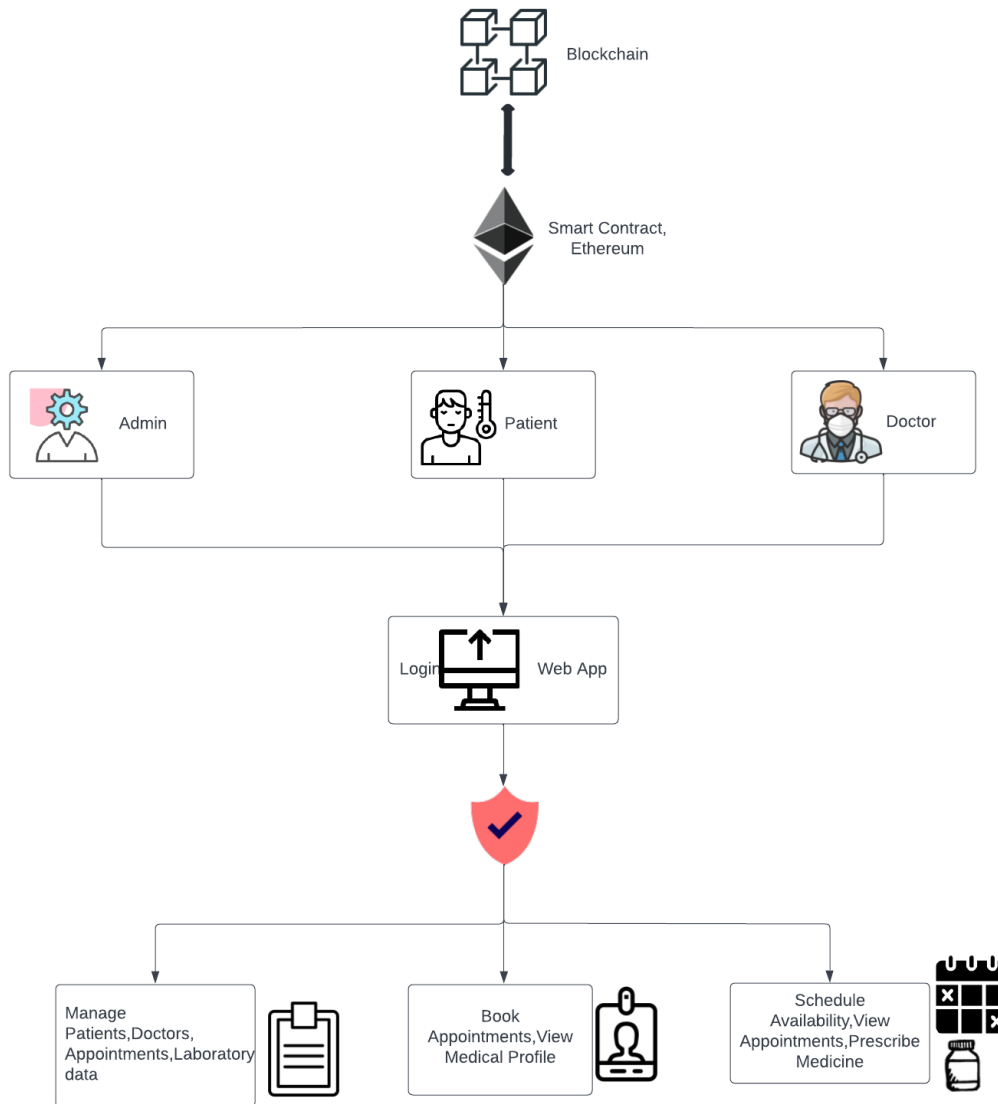
## **DOCTOR MODULE:**

- Doctor need to register and login.
- Admin will approval the doctor identity.
- Accept the patient request.
- After consultation send payment details and eprescription to patient.

## **TOOLS & TECHNIQUES:**

- Remix IDE
- Solidity
- Ganache
- Web3.js
- HTML5
- CSS5
- Bootstrap and jquery

## ARCHITECTURE DIAGRAM :



- The architecture diagram represents the online doctor consultation Management System which has three main modules, Admin module, Patient module and Doctor module.
- The Admin, Patient and Doctor has the accessibility and are connected to the Blockchain where interaction and exchange of data takes place.
- The Blockchain holds all necessary details of the registered patients.

- The login control is accessible by admin, patient and doctor where, admin could manage patient's records, check for doctor's availability and so on.
- The patient could book appointments online based on the specialization and availability of doctors, could update their personal details and view their medical profile.
- The doctors could manage and view their everyday appointments, view patient's medical records and could prescribe medications online.

## **REFERENCE**

- S. S. Devi, J. S. Deepica, K. Dharshini and G. Dhivyashree, "User Interactive Hospital Management System by using Web application," 2021 Second International Conference on Electronics and Sustainable Communication Systems (ICESC), 2021.
- Pranjali Anpan, Roshni Udasi, Susneha Jagtap, Shon Thakre and Chalika Kamble, "Hospital Management System", International Research Journal of Engineering and Technology (IRJET), vol. 07, no. 04, 2020.

## **PROJECT GUIDE**