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DAPP to Store Electronic Medical Health Records on Ethereum Blockchain and IPFS

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Abstract: *In this digital world, information technology is growing day by day. Due to this, a large amount of data is generated every day from various domains, and one of the domains is medical health records. A large amount of medical data is generated every day. Such as electronic medical records, medical images, diagnostic reports, X-rays, MRI scans, etc. These medical records can help in treating a patient when needed and can be shared with different medical institutions. There are systems built that are used to store all the medical records of patients. But they are centralized and may not be secured, and a user may not know how and where these records are shared. However, if these medical records are leaked or shared with a third party, the owner of that medical record may not know how and where these medical records are used, thus sabotaging the patient's privacy. Therefore, controlling the access rights to medical data is an urgent issue. On the other hand, patients do not have any proper application that will help them store and view their history of medical records and have control over them. This project aims to build a decentralized application to store the medical records of patients on the Ethereum Blockchain and Inter Planetary File System (IPFS). This app will help users to keep electronic medical records in one place, and the user will have full control over their data. This app will help doctors diagnose the patients by seeing their medical history. This will also help researchers to research various diseases. This app will store the data of patients from doctors and pathology labs. Users will be able to control who can add the medical details and see them. They can give access and revoke it. This application will store the file in DICOM, JPEG, JPG, PNG, and PDF format. In this application, there is no centralized authority. This application is secured because of peer-to-peer and distributed networks, it is tamper-proof. User has control over their data. They can choose whom to share their data with, and blockchain is reliable.*

Keywords: Blockchain, IPFS, Electronic Medical Health Records, Decentralized Application

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