**775: Developing secure framework using blockchain technology for E-Healthcare: A case of implementing PBFT consensus mechanism.**

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**Abstract:** Blockchain technology is the innovative technology that is developing the fastest and finding use in many different industries. It is renowned for its ability to adapt this technology to a number of fields, aiding in data storage in fields linked by peer-to-peer networks. To accom-plish the same, in this research Hyperledger fabric blockchain framework has been used with pluggable PBFT for providing security to healthcare transactions. This research started explor-ing successful Blockchain Applications along with primary research to understand need of im-plementation. It is focused on already existing blockchain applications as proof of concept in different domains was analyzed and the advantages of the technology in different fields were listed. It is challenging to get medical advice from several hospitals since hospitals completely control Electronic Health Records (EHRs), not patients. Patients must recover control over their own medical data and concentrate on the specifics of their own healthcare. The quick advancement of blockchain technology supports population healthcare, including patient-related data and medical records. With the aid of this technology, patients now have complete, unchangeable records at their disposal, as well as unrestricted access to their electronic health records (EHRs). In this paper, a secure framework was developed using blockchain technology to secure e-healthcare systems using Hyperledger fabric, which uses PBFT- Practical Byzan-tine Fault Tolerance consensus mechanism. Framework working is bidirectional with the pa-tient side and doctor side. When patients make registration with online with their personal in-formation, this information has all the user details for their login access. In the E-healthcare system, this information system is directly sent to the database with some of the command actions, and when patient registration is approved then patients can proceed further in the framework.

**Keywords:** Blockchain, PBFT- Practical Byzantine Fault Tolerance Consensus mechanism, Healthcare, Electronic health records.