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| Title | Distributed Ledger Technology Based Integrated Healthcare Solution for Bangladesh. | | |
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| Abstract |  |
| Healthcare data is highly sensitive and must be safeguarded. Personal and sensitive data, such as names and addresses, is stored in Encrypted Electronic Health Records (EHRs). This paper proposes a Blockchain-based distributed application platform for Bangladesh’s public and private healthcare service providers. The proposed application framework enables users to create secure digital agreements for commerce or collaboration by leveraging data immutability and smart contracts. As a result, all stakeholders can collaborate securely over the same Blockchain network, taking advantage of their data’s openness and read/write nature. The proposed application is made up of various application interfaces for various stakeholders. The proposed solution employs Hyperledger Fabric and Blockchain to ensure data integrity, privacy, permissions, and service availability. In the application portal, each user has a profile. The creation of a unique identity for each user, as well as the establishment of digital information centers across the country, has greatly aided the process. This application collects health data from each user in a systematic manner, which is useful for research institutes and healthcare-related organizations. For this application, a national data warehouse in Bangladesh is feasible, and various healthcare-related analyses can be performed using the collected data, assisting the strategy and planning department in making informed decisions regarding the healthcare sector in Bangladesh. Because Bangladesh has both public and private healthcare providers, a simple digital strategy is essential for all organizations to accomplish their services. This study proposes a solution to achieve this goal. | |