

# Blockchain Enhanced Stock Trading Application

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**Abstract:** *Stock exchange works and functions in a very inconvenient and hectic way because of post-trade processes which are cost-inefficient, time-consuming and can be prone to numerous risks. This motivates us to experiment with new technologies like blockchain which has immense potential to change the process of post-trading. In this paper, we propose an implementation of a stock trading application built on Hyperledger Fabric, a hybrid blockchain architecture. The network for our application is built using Hyperledger Composer framework. All the transactions done on the client app are recorded and appended to the Fabric with the help of a REST server. Fabric contains various security measures such as Access Control Lists and channels to ensure only authorized users to have access to those transactions. Before the users can perform any transactions, they will be given an identity card containing the certificates and credentials required to access the blockchain network. With our approach, we aim to significantly cut the transaction costs of exchanging shares and bring about a seamlessly efficient platform where participants would confirm trades via a distributed ledger.*

**Keywords:** Stock Trading, Securities Exchange, Hybrid Blockchain, Distributed Ledger, Hyper ledger Fabric, Hyper ledger Composer

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