CS1699 Deliverable 4: Impact of Blockchain

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https://github.com/Mavirek/CS1699-Deliverable-4-Impact-of-Blockchain

My project was developing a chaincode for Hyperledger Fabric. Chaincode is another term for a smart contract for Fabric and is typically written in Go. The chaincode I wrote is for health insurance companies to keep track of providers (aka doctors) when they change addresses or update their information, hence the name 'Provider Sync'. Using a private, permissioned blockchain like Hyperledger Fabric would be a good fit in my opinion for this real world issue where it would be ideal for multiple companies to work together. Since I didn't really modify the blockchain code itself (a basic network was provided by Hyperledger in Node.js), the features of the chaincode have to be tested manually by changing the request call in 'invoke.js' and 'query.js' files. Further information on setting up the Fabric network is on my GitHub README.

The features I implemented on the chaincode are addProvider(), queryProvider(), updateProvider(), and queryUpTo(). The first three methods are pretty standard, while queryUpTo() returns a requested number of providers based on the argument input. Providers are each given an ID along with their standard information.