Ethereum and Hyperledger difference : we are going to work mostly on the Hyperledger

Blockchain : digital accounting book – to record transaction

* Transaction : an asset moves from one person to another
* **Hash** is going to be the digital representation of the physical asset – the asset could be anything like IP
* A transaction is stored not one but many computers – security is that no one can change – every transaction is recorded on the blockchain, but the hash that was previously created and added to the new transaction
* Let’s say someone is trying to hack – they will have to hack all the computers in the chain at the same time
* **Security of the blockchain –** 1- cryptographic algorithm for making hash 2-decentralized which means on many computers
* The blockchain contains not the actual data but the hash
* Every transaction is PEER TO PEER
* A digital currency/crypto currency is a digital asset that represents the asset

**Mining**

In order to hash the computer, there needs to be an incentive. Every time transaction is competed, there is a reward – this is mining

Ethereum is a permission less blockchain

Hyperledger is opposite – like it works on a closed system – so you have to be given permission to join the network. – They are called permission/private key blockchain.

* How the blocks are made – non – who to trust?
* Understand the difference between Ethereum and Hyperledger
* Look at the loyalty program
* Figure out if we can make it Hyperledger and how it will be better
* Write the pros and cons
* Will using Hyperledger be faster and better UX, efficient? – the user-friendliness is IMPORTANT.
* If we were to stay on Ethereum platform, is there a way to make the way faster?

Check metamask