An organization named “XYZ yarn selling company” who colors white yarn and sells colored yarn to the retailers. Buyers buy the colored yarn from Seller Company and produces cotton sarries.

Seller Company gives credits in the form of goods to increase their sales and to attract more buyers. Buyers come to Seller Company, buy the colored yarn and pay the money more than or less than or equal to the goods they bought. Then Seller Company makes a note of this transaction in their ledger and also makes a entry of the same in the passbook which is with the buyers. So here the ledger is being maintained at seller & buyer.

So this kind of transactions happens with more buyers like B1,B2,B3,B4…Bn

**Ledger at Seller Company**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Credit | Debit | Balance |
| 11/10/2018 | 2000.00 | 2524.00 | 524.00 |
| 11/11/2018 | 500.00 | 1125.00 | 1149.00 |

**Ledger in buyer passbook**

|  |  |  |  |
| --- | --- | --- | --- |
| Date | Credit | Debit | Balance |
| 11/10/2018 | 2524.00 | 2000.00 | 524.00 |
| 11/11/2018 | 1125.00 | 500.00 | 1149.00 |

So at the end of 11/11/2018, both ledger & passbook are in sync and are showing the same balance that buyer has to pay and seller has to get from the buyer.

But the problem with this system, ledger at Seller Company and the ledger at buyer can be altered illegally. Seller company can alter the records or may delete some credit entries of a buyer in their ledger so that ledger shows buyers has to pay more amount to them and buyer can add some debit entries illegally so that ledger shows they need to pay less amount to the Seller Company.

* Ledger can be altered
* Ledgers are centralized at Seller Company & buyers
* Breach of trust between Seller Company & buyers

So we want

* Ledgers cannot be altered once an entry is made
* Enforcing the trust between untrusted parties
* Ledgers should be distributed across all parties in the transaction
* Entry should be approved before it gets entered into ledger

**Requirements**

**The whole purpose of this project is to record only the approved transactions onto blockchain network.**

1. Network should be formed with Seller organization owner, auditor who makes the entries to ledger and N no of Buyers
2. Auditor creates new buyers and upon approval of the owner, the buyer will be added to network
3. Buyers addition to network is dynamic
4. When buyer transacting with seller company, Auditor tries to make an entry into ledger the entry should be updated into ledger only upon approval of seller company owner & buyer.
5. If owner or buyer anyone rejects the transaction entry should not be made to ledger
6. Buyers have the read permissions to view the transactions and also can approve the transactions before it is made into ledger.
7. Buyer can see only their own transactions and approve their own transactions
8. Buyers should not see other buyers transactions and should not be able to approve other buyers transactions
9. Seller Company Owner can see the transactions of all buyers and approve transactions of all buyers.
10. Auditor has write permissions but cannot make any entry into ledger without approval from Buyer/Seller Company Owner
11. This application is required only for recording the transaction in blockchain network.