PROPOSAL FORM
FINAL YEAR PROJECT IN COMPUTER SCIENCE/SOFTWARE ENGINEERING
Usman Institute of Technology

BLOCK-CHAIN BASED E-CERTIFICATION

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18th September, 2020

PROPOSAL FORM
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PROPOSAL FORM
BLOCK-CHAIN BASED E-CERTIFICATION

Background	The problem is that different certificates like events, courses, health, etc. are issued to the people from different organizations. But in case of any mishaps (natural disaster, snatching, etc.) person might lose his/her certificate, Sometime the organization shift the platform so it is very difficult process to get that certificate again due to lots of hurdles, verifying those certificates is really big issue, some time it is not possible due to lack of backup and sometime if it is possible so it is very time consuming and costly process also preparing and distributing those certificates manually is so much time consuming.
	There is an international company named as accredible that has developed the same idea but for the verifiability & security purposes they are using bitcoin blockchain technology. In our solution we are using hyper ledger fabric, which is a permissioned block chain, so no unauthorized entity can read or write the data.
Project Scope	• Creation of temper free & verifiable certificates using blockchain technology. • Any organization can join a blockchain network by deploying nodes. • Organizations hosting the blockchain network can provide services to others.
Project Description	The main purpose of doing this project is to make certificates easily verifiable and the main features of the project includes the following: • Allows users to create certificates. • Allowing to create batches and add certificates in it. • Certificates will be verifiable from any of the organization's websites after publishing to the blockchain. • Organizations that deploy blockchain nodes will be able to provide services to the client-organization.
Expected Outcome	A platform for e-certification which provides a way to verify the certificates not only by the certificate generating entity but other entities part of the network also verifies those certificates and if there is any data loss by some of the entity than other entities part of the network can still able to verify the certificates generated by that entity.
Method/Approach	We are using a waterfall model. Each phase must be finished before the next phase can begin and there are no unclear conditions in our project. At the conclusion of each phase, a review takes place to decide if the project is on the right direction or not. Every week we schedule 2 meetings with our supervisor for discussing problems whether they are technological or non-technological and also discuss our future plans for clearing any types of misunderstanding and problems.
Relevant references	• https://www.researchgate.net/figure/Comparison-of-blockchain-platforms_tbl1_314943090 • https://dl.acm.org/doi/10.1145/3319647.3325841 • https://ieeexplore.ieee.org/abstract/document/8491888 • https://ieeexplore.ieee.org/document/9121627 • https://medium.com/blockchainspace/3-comparison-of-bitcoin-ethereum-and-hyperledger-fabric-cd48810e590c

TECHNOLOGY DOMAIN (TICK ONE OR MORE)
1. Desktop application
2. Web application ✔
3. Client-Server application ✔
4. Computer Game
5. Mobile application
6. Client Based

For Office use only (To be filled by the Final Year Project Coordinator)

Sr. No	Evaluator name	remarks	Accepted/ rejected

Idea Accepted	Idea Rejected
	Reason(s): Next Action Plan:

FYP COORDINATOR