Project Design Phase-I

Solution Architecture

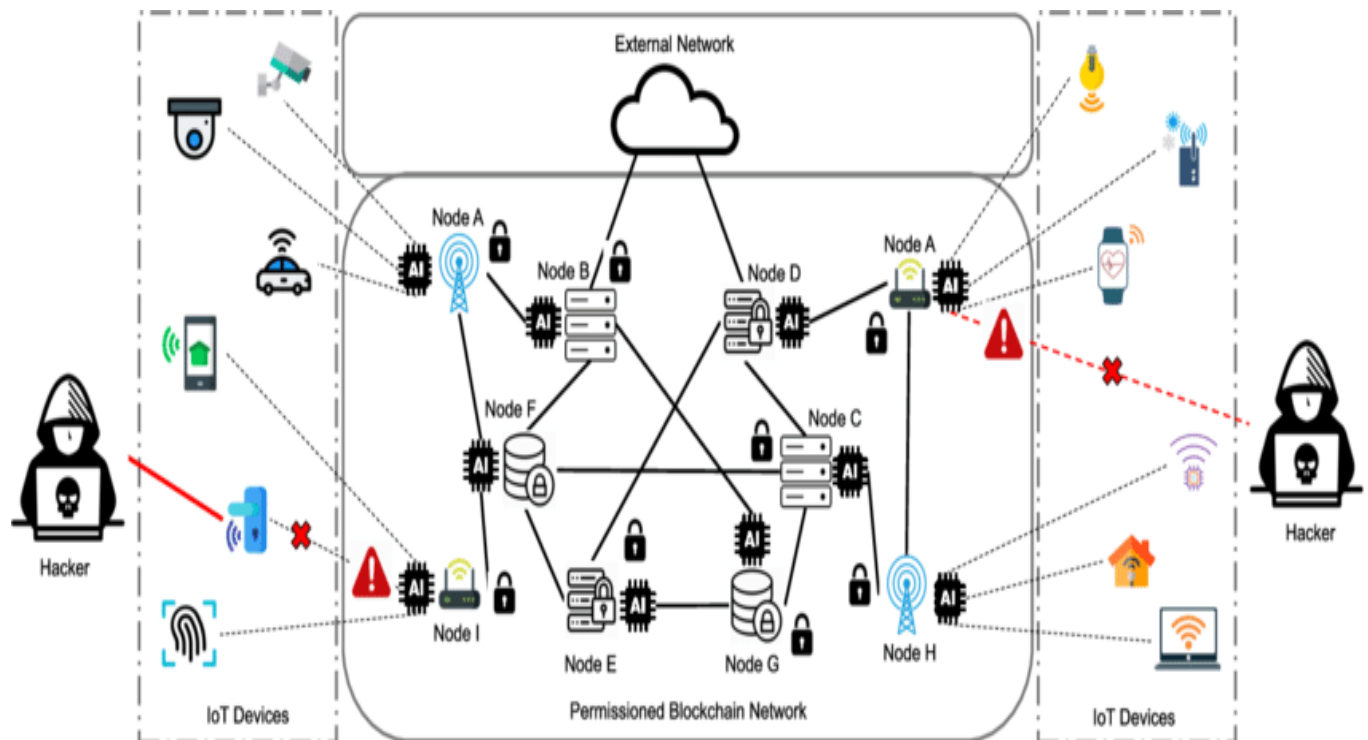|	
Date	19 October 2023
Team ID	A8901FF527D677E86E84B1E507FC2653
Project Name	Chain Connect Node
Maximum Marks	4 Marks

Solution Architecture:

Blockchain is a distributed and decentralized database that uses a peer-to-peer network to perform transactions without a third-party intervention.

Blockchain has a layered architecture that consists of components and services such as application, smart contract, integration, distributed ledger, and security.

A smart contract is a software code that represents transactions in the blockchain network. It is executed by the nodes using a consensus algorithm.

A node is a participant in the blockchain network that has a copy of the blockchain and can verify and validate transactions.

Solution Architecture Diagram:

Nodes can synchronize with each other by exchanging hash and height pairs of blocks. If a node does not have a block, it can request it from another node and add it to its copy of the blockchain after checking its validity.

A blockchain is a system that stores data in a series of blocks that are linked together by cryptographic hashes. Each block contains a set of transactions that are verified by the nodes in the network.

A node is a computer that participates in the blockchain network by running a software that allows it to communicate with other nodes and perform tasks such as validating transactions, storing blocks, and executing smart contracts.