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Experiment No: 5

Aim: Show implementation of the blockchain platform Ethereum using Geth.

Theory:

- Ethereum is a decentralized platform that enables the creation and execution of smart contracts and decentralized apps.
- Geth is one of the three original implementations of the ethereum protocol, written in a GO Language.
- Steps to build your private blockchain:

Step 1: Install Geth
Geth is a CLI with some resources to connect you to Ethereum network. You should have access to Geth Binary before moving ahead.

Step 2: Create genesis.json
Every block chain starts with a genesis (first) block. The genesis block is configured using genesis.json file for a private network.

Step 3: Initiate the private blockchain
We have the configuration ready for the genesis block. We need to run first geth command to initialize the private blockchain.

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geth --datadir ./node1 init genesis.json

Step 4: Add the first node to the private blockchain.

Step 5: Add more nodes

Step 6: Connect node 2 with node 1 as peer.

step 7: Mining blocks and creating transactions.

- Mining is the process of validating transactions and adding them to transactions.

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