Day 4 Blockchain Notes

What is a Crypto Transaction?

A crypto transaction involves the transfer of digital assets (like cryptocurrencies) from one wallet to another. Once a transaction is validated and added to the blockchain, it is immutable, meaning it cannot be changed or reversed.

Example: Alice sends 0.05 ETH to Bob. Alice's wallet balance decreases by 0.05 ETH, and Bob's balance increases by the same amount. The transaction is added to the Ethereum blockchain.

Crypto Wallets:

A crypto wallet is a software application that allows you to store, send, and receive digital currencies. It does not actually store the cryptocurrencies themselves but rather the keys required to access your digital assets.

- **Private Key**: A private key is a secret piece of data used to sign transactions and access your assets. It's essentially your password and should be kept secure.
- **Public Key**: A public key is like an account number that can be shared with others to receive cryptocurrencies.

Example: MetaMask is a hot wallet that stores your private and public keys, allowing you to interact with Ethereum and ERC-20 tokens.

Hot Wallets vs Cold Wallets:

- **Hot Wallets**: These are wallets that are connected to the internet, making them more convenient for frequent transactions but less secure.

- **Cold Wallets**: Cold wallets are offline wallets that store your keys securely, making them less susceptible to hacking but less convenient for quick transactions.

Example: MetaMask is a hot wallet, and Ledger is a cold wallet.