Ethereum

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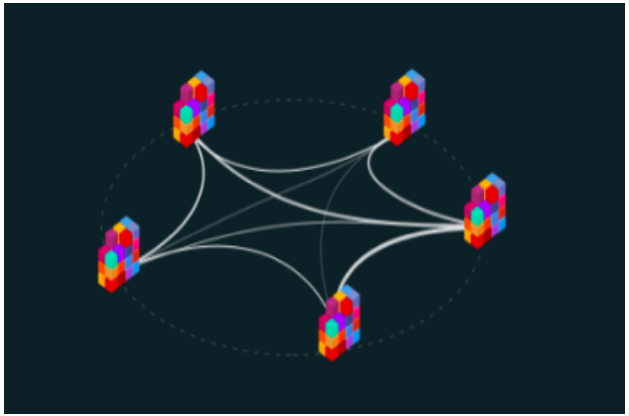
What is Ethereum?

Ethereum is an open-source, public, blockchain-based distributed computing platform featuring smart contract (scripting) functionality. It provides a decentralized **Turing-complete virtual machine, the Ethereum Virtual Machine (EVM)**, which can execute scripts using an international network of public nodes. It is written in C++, Go, and Rust.

When and How

Ethereum was initially described in a white paper by **Vitalik Buterin,** a programmer involved with Bitcoin Magazine, in late 2013 with a goal of building decentralized applications. The project is developed by the Ethereum Foundation, a **Swiss nonprofit,** with contributions from great minds across the globe.

The apps run on a custom built blockchain, an enormously powerful shared global infrastructure that can move value around and represent the ownership of property.



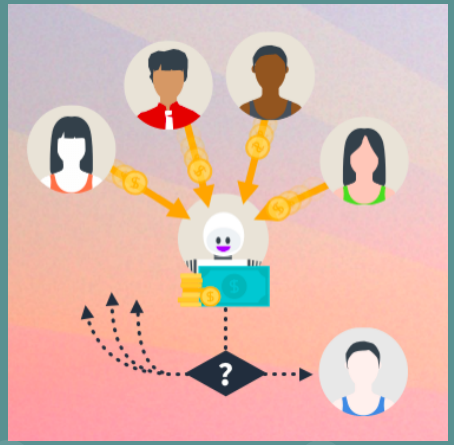
Examples

YOU CAN BUILD:

- A tradeable token with a fixed supply
- A central bank that can issue money
- A puzzle-based cryptocurrency

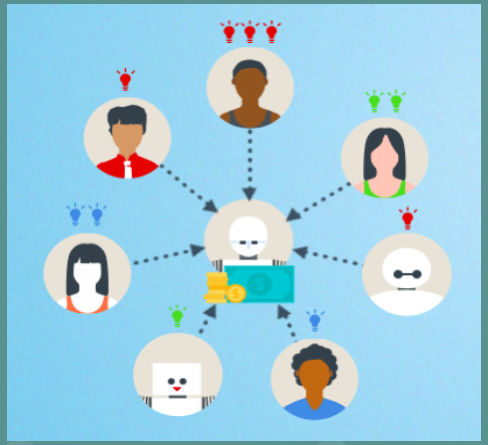
YOU CAN BUILD:

- A crowdfund to pre-sell a product
- A crowdsale to sell virtual shares in a blockchain organization
- An auction of a limited number of items



YOU CAN BUILD:

- A virtual organization where members vote on issues
- A transparent association based on shareholder voting
- Your own country with an unchangeable constitution
- A better delegative democracy



Writing Smart Contracts

To write smart contracts there are a few different languages: **Solidity**, which is like JavaScript and has .sol as a file extension, **Serpent**, Python-like with extension .se, and a 3rd, LLL, based on Lisp. Serpent was popular a while back but Solidity is the most popular right now. It is similar to Python.

After writing a contract in Solidity, use **solc** to compile it. It's from the C++ libraries

Once a Solidity contract is compiled with solc and sent to the network, you can call it using the Ethereum **web3.js JavaScript API** and build web apps that interact with contracts.

If you are interested check this page: (Medium - ethereum for noobs)
https://medium.com/@ConsenSys/a-101-noob-intro-to-programming-smart-contracts-on-ethereum-695d15c1dab4