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Ethereum Development

MAGRATHEA LABS

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SUMMARY

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What is Ethereum?

“Ethereum is a **decentralized platform** that runs **smart contracts:** applications that run exactly as programmed without any possibility of **downtime**, **censorship**, **fraud** or **third-party interference**.” [ethereum.org]

How does Ethereum work?

“(...) apps run on a **custom built blockchain**, an enormously powerful **shared global infrastructure** that can move **value** around and represent the **ownership of property**.” [ethereum.org]

- Smart contracts are written in **Solidity** and deployed as binary codes
- Transactions can be **value transfers** or **contract method calls**
- Code is run by each node using an **EVM** (Ethereum Virtual Machine)
- Therefore, code must be deterministic

Dependencies

- geth 1.7.3-stable
- Solidity v0.4.19
- npm 5.6.0
- node v9.4.0
- Truffle v4.0.6

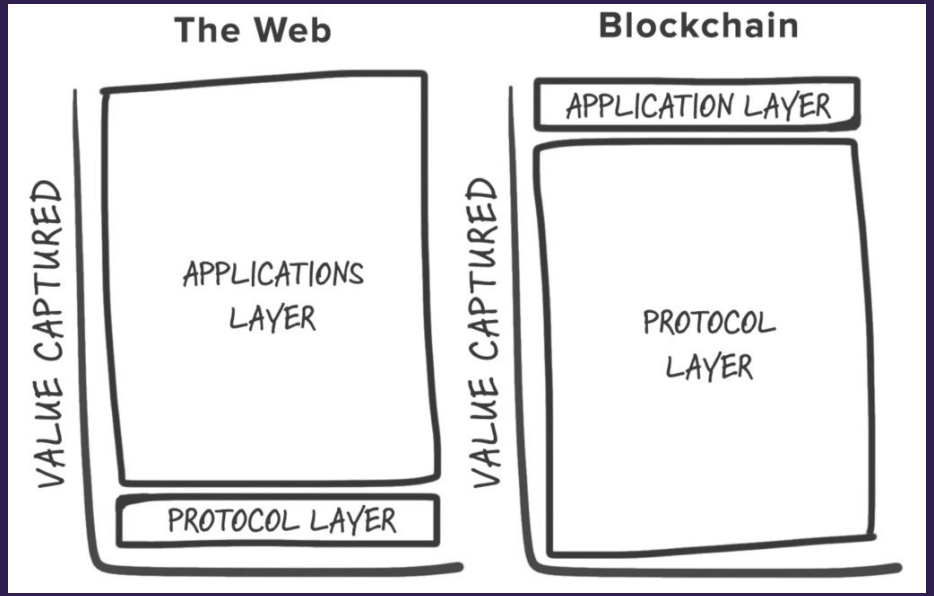
Running your own node

https://gist.github.com/laurogripa/59d0ea3da3c8b8efac3d8b402ac7a8ae

[DEMO]

Bolacha ou Biscoito?

Capturing (and creating) value



The paradox of presales

- 100 million gems will be issued and used to pay for ads
- “Why I don’t use bitcoin instead of gem?”
- However, the token is needed to fund the project

Possible applications

- Resolving Puzzles / Finishing Games
  - The Legend of Satoshi Nakamoto
  - Montecrypto: The Bitcoin Enigma
- Collectible Digital Art
- Crypto Assistant
  - Chatbot
  - Price Prediction

Possible applications

- Bounty hosting/hunting
  - Bounty0x
  - Solidity debugger
  - GITCOIN
- Raspberry Staking
- DAO
  - Coworking/Organization Token

Sources

- https://ethereum.org
- https://medium.com/@mvmurthy/full-stack-hello-world-voting-ethereum-dapp-tutorial-part-1-40d2d0d807c2
- https://medium.com/@mvmurthy/full-stack-hello-world-voting-ethereum-dapp-tutorial-part-2-30b3d335aa1f
- https://gist.github.com/laurogripa/59d0ea3da3c8b8efac3d8b402ac7a8ae
- https://github.com/laurogripa/voting-dapp
- http://www.ethdocs.org/en/latest/introduction/what-is-ethereum.html
- http://truffleframework.com
- https://github.com/ethereum/web3.js/
- https://github.com/ethereum/go-ethereum
- https://tpbit.blogspot.com.br/2014/12/the-paradox-of-presales-pondering-gems.html

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Thank you!

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