

Stacks Cheat

Stacks → Layer 0 blockchain → Uses Proof of Proof (POX) mining protocol.

Pox blockchain → runs in parallel to another blockchain (Bitcoin)

Layer 1 → Second Level blockchain
↳ Has its own ledgers
↳ stacks, bitcoin, ethereum

Layer 2 → Solana, bitcoin lightning →
↳ It doesn't have its own ledgers

(Clarity vs Solidity) → Built on ethereum

↓
Built on stacks

Clarity

- Turing or complete
- Lower gas fees
- Interpreter
- No loops / recursion
- SIP Standards

↓
Function should be there

Solidity

- Turing complete
- Higher gas fees
- Compiler
- Loops / Recursion
- EVM Standards

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Syntax

Shirley

Salvador

(define -public (sig -hi))
(ok "Hello world")

Program state
Contract Hello world {
Sig public
Greet = "Hello world"
}

Case cipher with shift n

n - range from 1-25.

Subtract from the
just add 1 into the ASCII to cipher

Monalphabetic substitution

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Single key = Symmetric

Public Private key = Asymmetric

Stronger keys are usually
generated by program

hashing → faster access, unidirectional
Encryption = bi-directional

Consensus to verify if the transaction is valid

Consensus algorithm

POX [Proof of work]

Proof of work [Bitcoin]

Proof of stakes
[Ethereum]

Mining == Proof of work

↳ hardware GPUs

↓
Makes hashes [solves problem] →

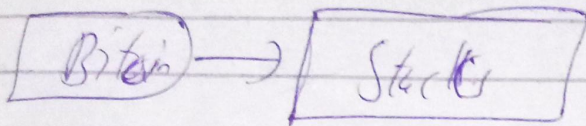
If anybody transactions on
that block, the miner will
ultimately get the benefit

Get stored on Bitcoin
as block
[Proof of work]

Proof of transfer

↳ Many blocks are added in a block,
what stack does it sorts the blocks according
to the ^{most} consumption / ~~transaction~~ ^{used} in a block
& adds the blocks into it layers

stack does it internally using smart contracts
that's why stacks was built on top of bitcoin
to extend its functionality.



Classifying Smart Contracts

- ↳ Runs on block chain → ~~piece of code~~
- Nobody owns logic ~~nothing~~
- Piece of code
- If something goes wrong in the depth we don't know how to prevent it

Bitcoin's security:-

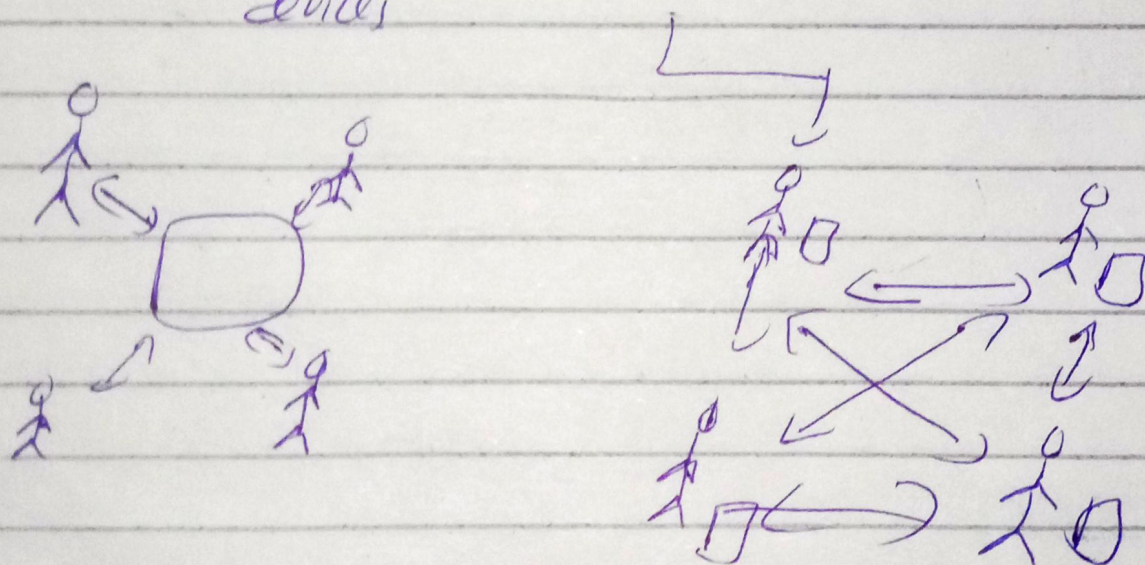
- A transaction is nearly impossible to reverse or change once it has settled on bitcoin

Bitcoin's network effect:-

- Bitcoin becoming a standard
- stacks can provide hard we cases for holders of bitcoin such as bitcoin-backed loans, bitcoin DeFi creating tokenized NFTs

Why we Smart Contracts:-

- > "Decentralised Automation"
- > Cryptography
- > 2 apps: For general users interacts
- > Web 3.0
- > Super Computer distributed across the world's devices



Used:

Banks: Loans Automatic Payments

Insurance: Process claims Postal: Payment handling