Certified Blockchain Architect

Blockchain Environment Considerations

Public vs Private

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Public Blockchain

- Anyone can read without explicit authorisation
- Anyone can write without explicit permission
- More complex rules for better security
- Complex consensus algorithm
- Computationally expensive to mine & add a Block
- No one owns it
- Computational power is distributed globally
- Example: Bitcoin Blockchain, Ethereum Blockchain etc

Private Blockchain

- Only authorised nodes can read the transaction data
- Only authorised nodes can write the transaction into Blockchain
- Private hence security can be implemented in a straightforward way
- One authorised node can be the arbitrator for any dispute
- Easy or computationally less expensive to add a Block
- One or more private entities own the Blockchain
- Many things can be replaced by legal contract giving more control to the one party
- Examples: Privately installed Ethereum Blockchain, ICICI Bank's Blockchain etc

Permissioned vs Permissionless

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Permissioned Blockchain

- A permissioned blockchain restricts the nodes to contribute to the consensus of the system state and the nodes that have the rights can only validate the block transactions or smart contracts.
- In Permissioned Blockchain it is mandatory for you to have permissions in order to be part of the growing chain.
- A permissioned blockchain do not have any computer based mining.
- For Eg: Private Blockchain for banks or any other blockchains that are build on top of Hyperledger

Permissionless Blockchain

- A permissionless blockchain does not restrict any node and anyone can participate in the process of block verification to create consensus or smart contracts.
- In permissioned blockchain you do not have to prove your identity to the ledger, and you can be a part of blockchain as long as you are willing to provide processing power.
- A permissionless blockchain use PoW where hashing power is offered to build trust.
- For eg: Bitcoin, Ethereum, Tron

THANK YOU!

Any questions?
You can mail us at
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