Hash Functions and Proof of Stake

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Hash Functions

- Hash functions are used in different areas not just in cryptocurrency
- Even in cryptocurrency, hash functions are used for different purposes

Hash function

Definition

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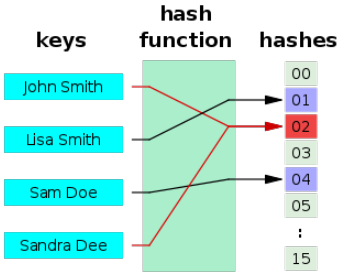
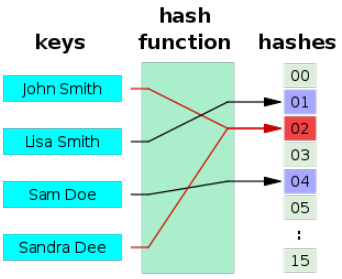


Hash function



- Input: a string, a SMS, a picture, a mp3 file, an application, etc

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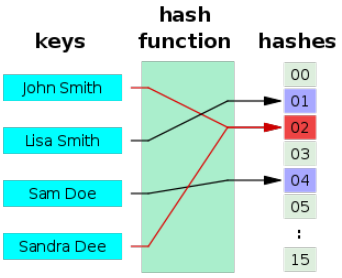

- Input: a string, a SMS, a picture, a mp3 file, an application, etc
- Output: output values are called hash values, hash codes, digests or simply hashes.

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Hash Table

- Hash Table

Hash Functions and Some Practical Usages

- Hash Functions

Some Popular Hash Functions

- MD5

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- SHA-2 (Secure Hash Algorithm 2) family: SHA-224, SHA-256, SHA-384, SHA-512, SHA-512/224, SHA-512/256
- Keccak256 (a variant of SHA3-256)

Cryptographic Hash Functions

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How Secure is SHA256?

- How Secure is SHA256?

Hash Functions in a Blockchain

- How does a blockchain work

Hash Functions in Proof of Work

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Proof of Stake

- What is Proof of Stake