BLOCKCHAIN TUTORIAL 3

Hash

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Hash

HASH

- A hash function converts data of any size into a string of a fixed size
- A small change in the data will result in a complete different hash
- When to different inputs produces the same hash, it is called a hash collision
- A hash function is considered "collision resistant" when it is very hard to find two inputs that hash to the same output
- There are many different hash functions

HASH

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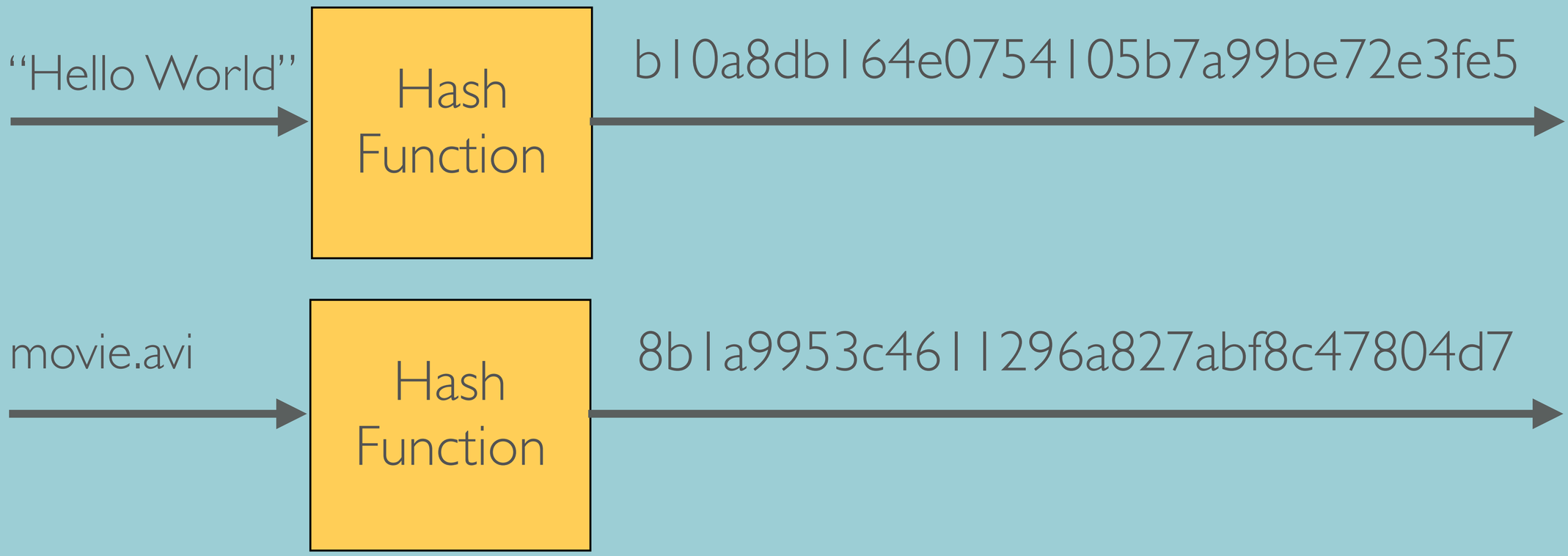

HASH

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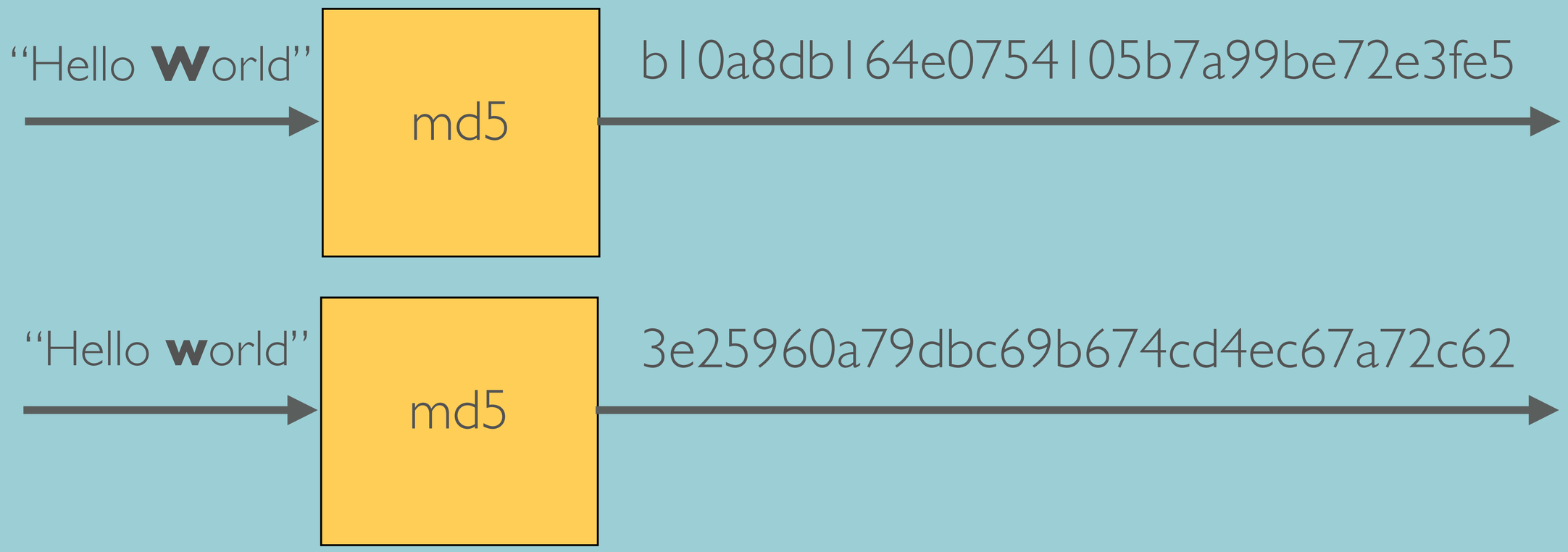

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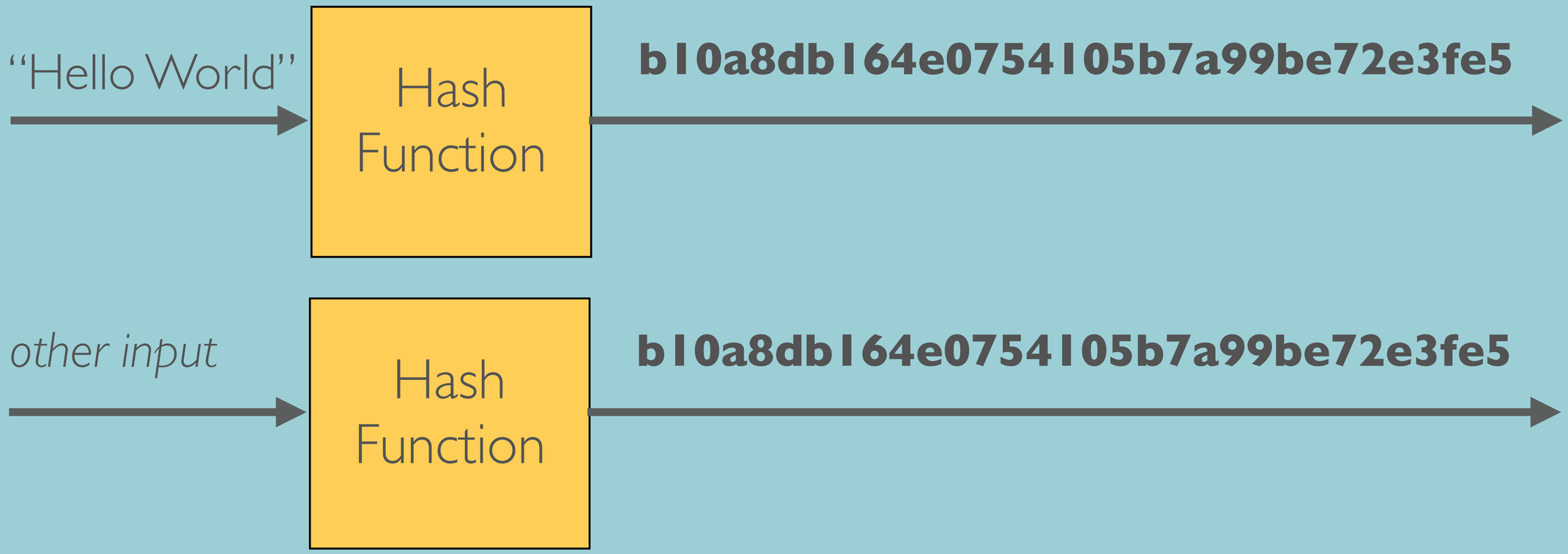

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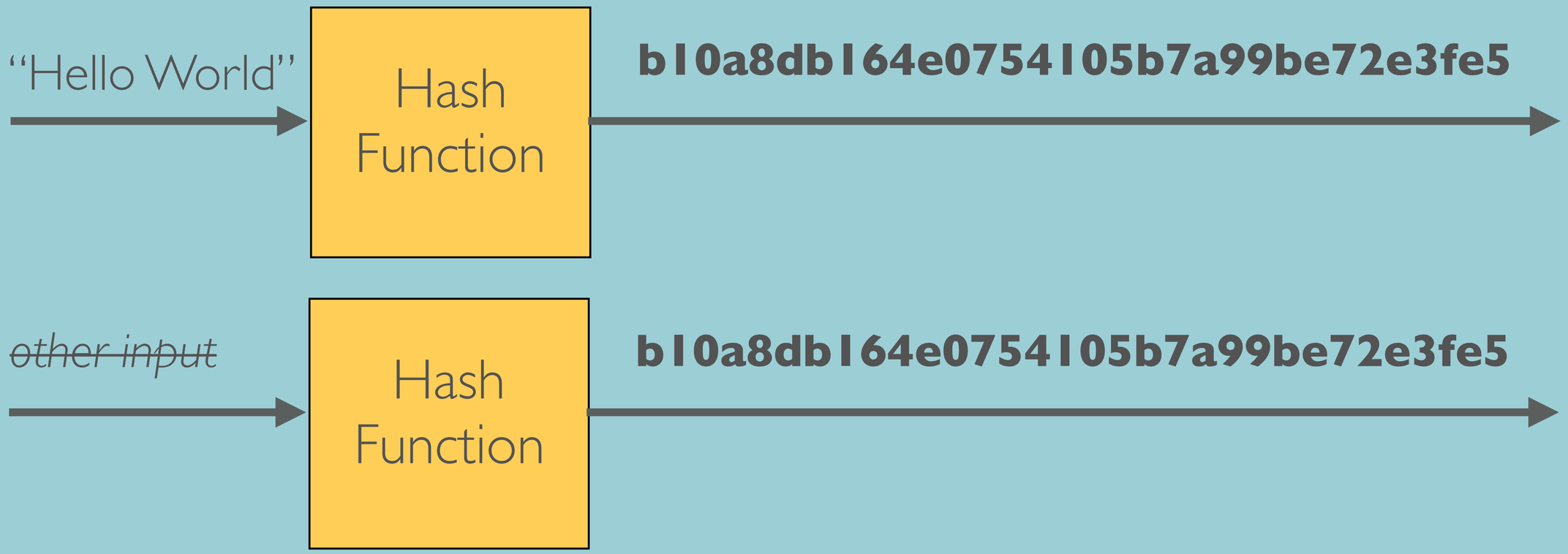

HASH FUNCTION

There are many different hash functions. Here are just a few:

Hash function	Hash length	Secure
md5	128 bits (32 symbols)	No *
ripemd160	160 bits (40 symbols)	Yes
sha1	160 bits (40 symbols)	No *
sha256	256 bits (64 symbols)	Yes
keccak-256	256 bits (64 symbols)	Yes

md = message digest

ripemd = RACE integrity primitives evaluation message digest

sha = secure hash algorithm

* not collision resistant