



The Blockchain in Practice



Cryptocurrency



- A cryptocurrency is a digital medium of exchange.
- It has three main features: a secure blockchain, wallets, and mining.

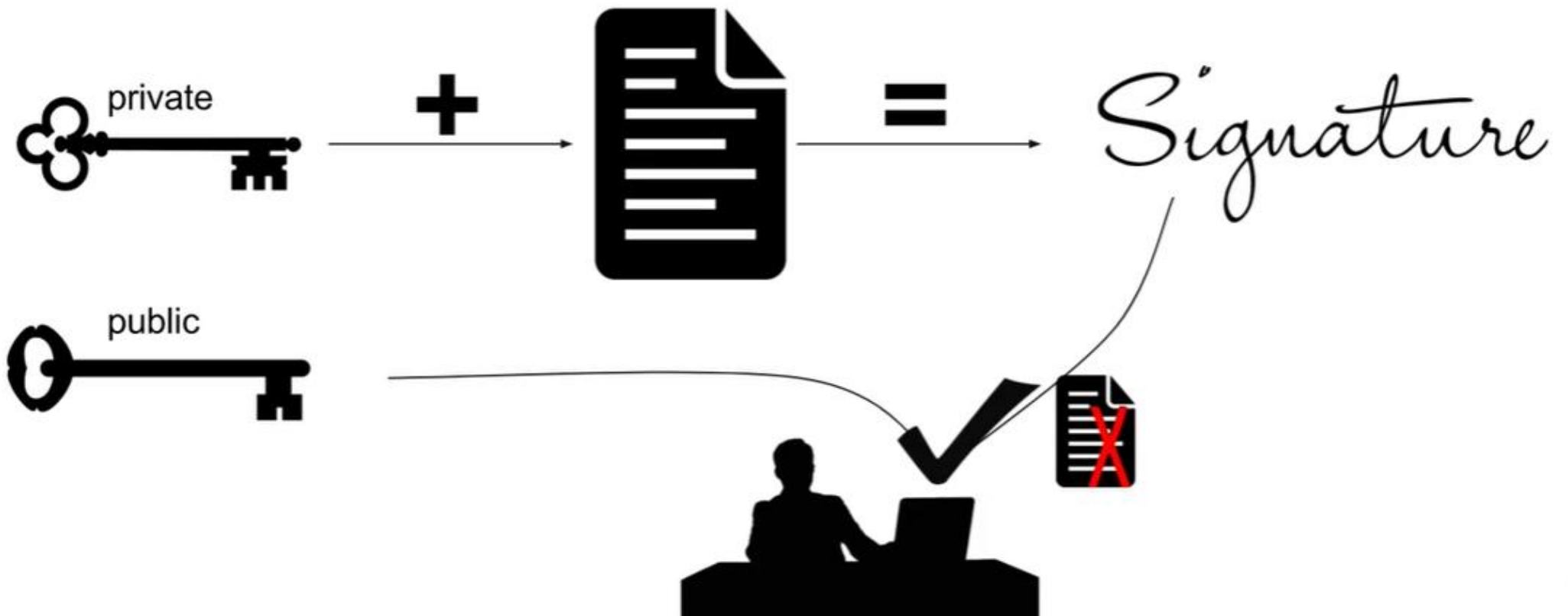


Leverages the blockchain



- How is this secure?
- Uses cryptography to generate digital signatures.

Digital Signatures





Wallets

- Objects that store the private and public key of an individual.
- The public key is the address of the wallet.
- Help sign transactions.

Mining



- Transactions are temporarily “unconfirmed.”
- Include blocks of transactions by solving a “proof of work” algorithm.
 - Difficult to solve, and computationally expensive.
 - Once solved, the miner can add the block and other miners will verify.
 - Miners are rewarded for adding a block to the chain.
 - The difficulty can adjust to control the rate of new blocks coming in.



Bitcoin



- The first decentralized cryptocurrency in 2009.
- Great growth, and widespread adoption - \$\$\$





Additional Use Cases

- Blockchain-based voting registers.



- Blockchain-supported documentation and identification systems.



- *“Will this really change the world?”*