



BlockChainED

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An educational project that teaches the core principles and algorithms of blockchain through establishing a real-time blockchain



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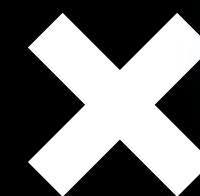
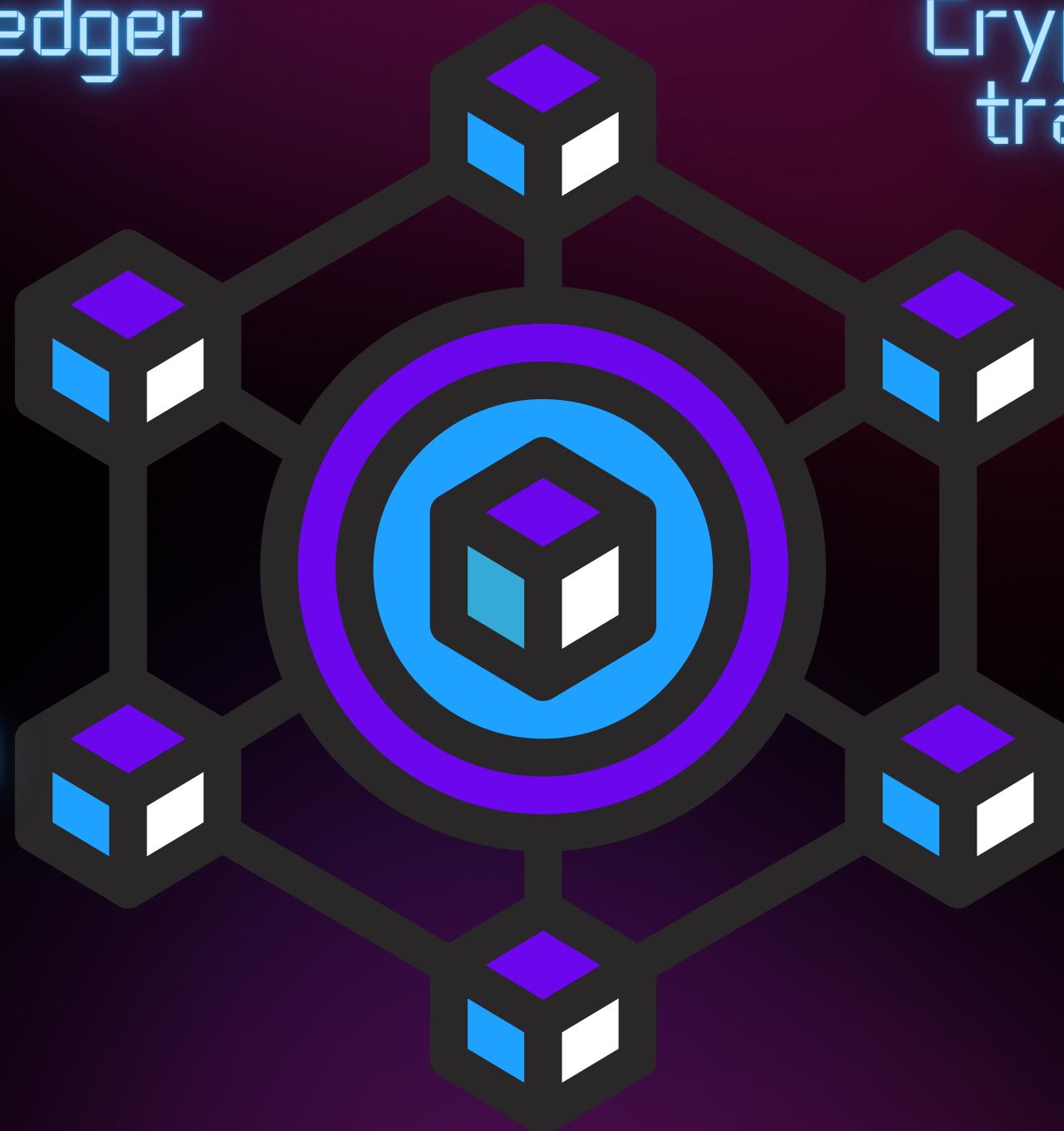
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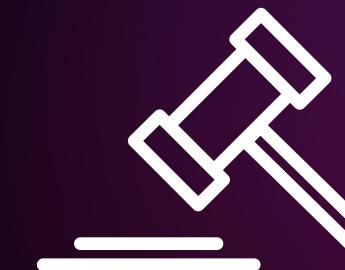
WHY BLOCKCHAIN?



Distributed Ledger



Not trust Based



Immutable record

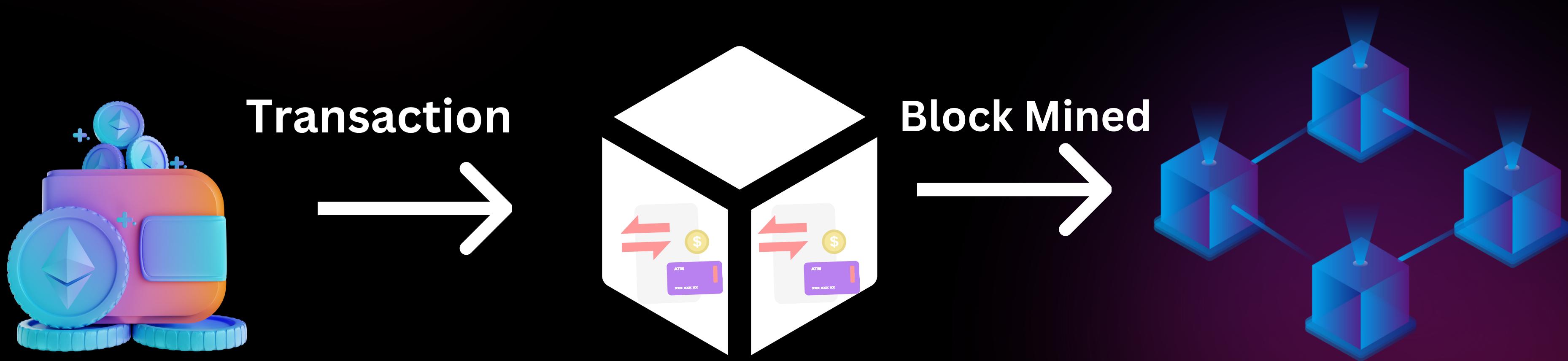
Cryptographic
transaction



Transparency
and
Security



FUNCTIONALITIES



1

Elliptic curve
cryptography

PublicKey

Balance : \$\$\$

PrivateKey

TRANSACTION

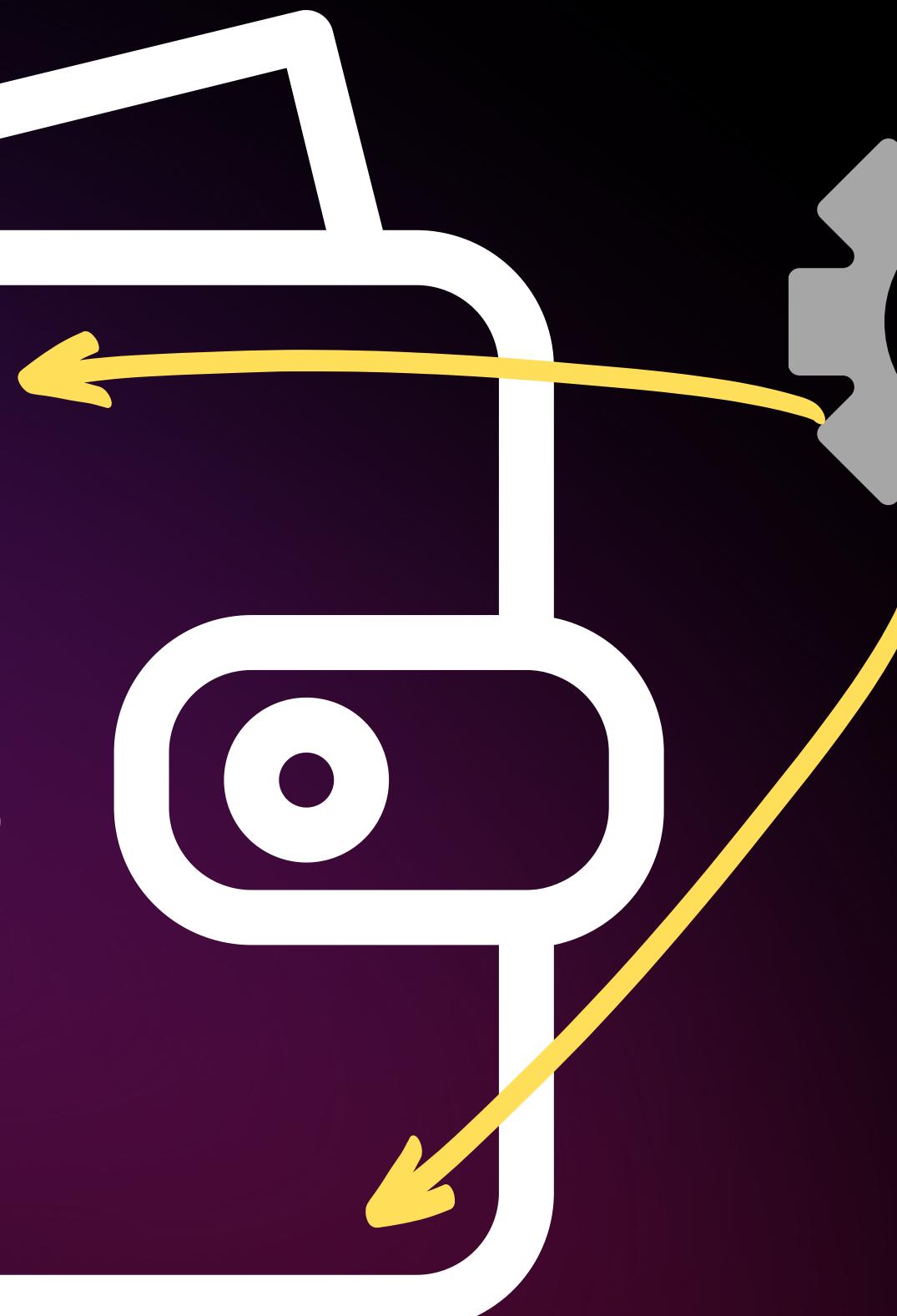
Wallet1

Signed by private key

\$\$\$

Wallet2

Received by public key



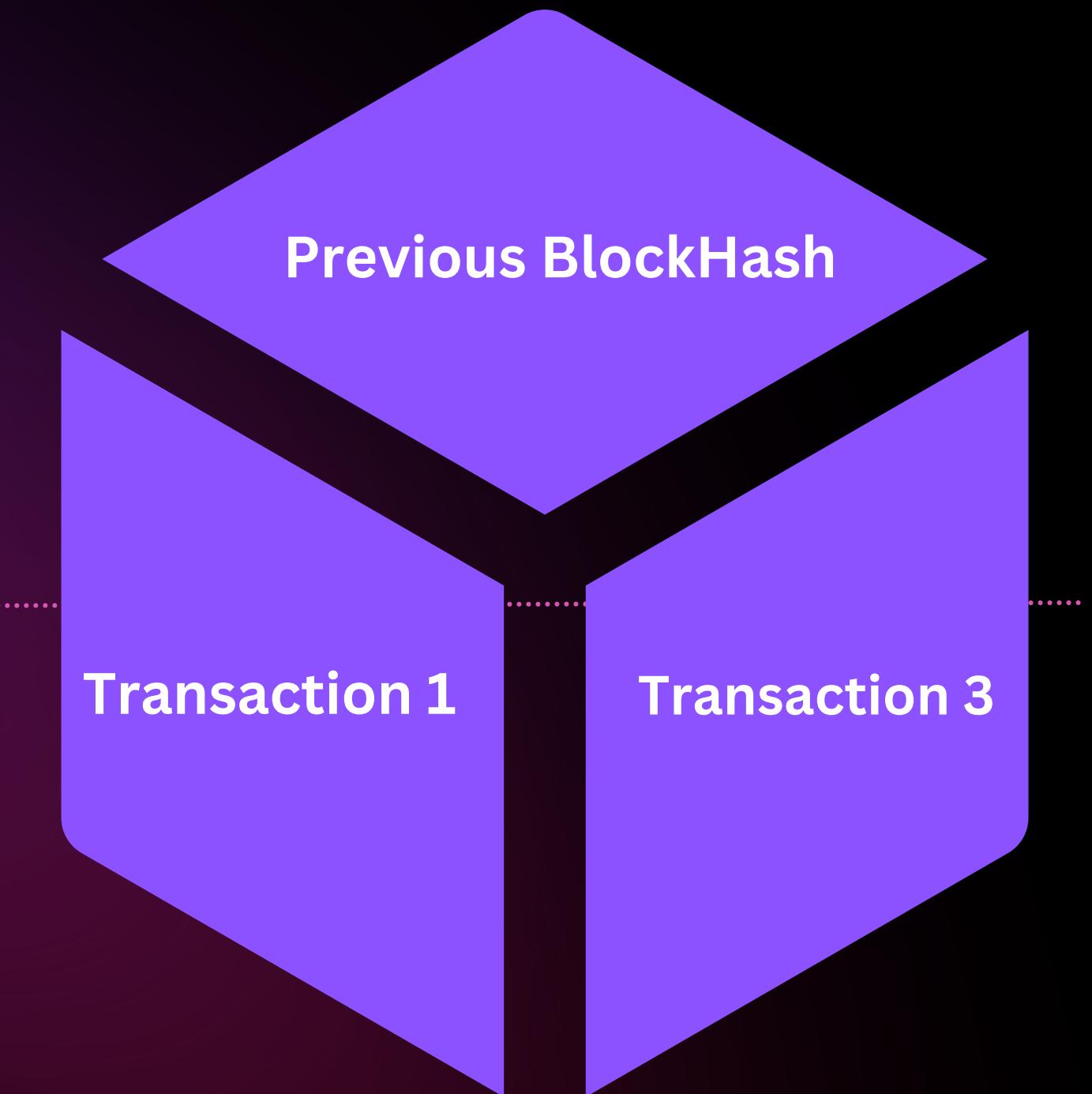
2



Collects Transactions
into block



Verifies Transaction

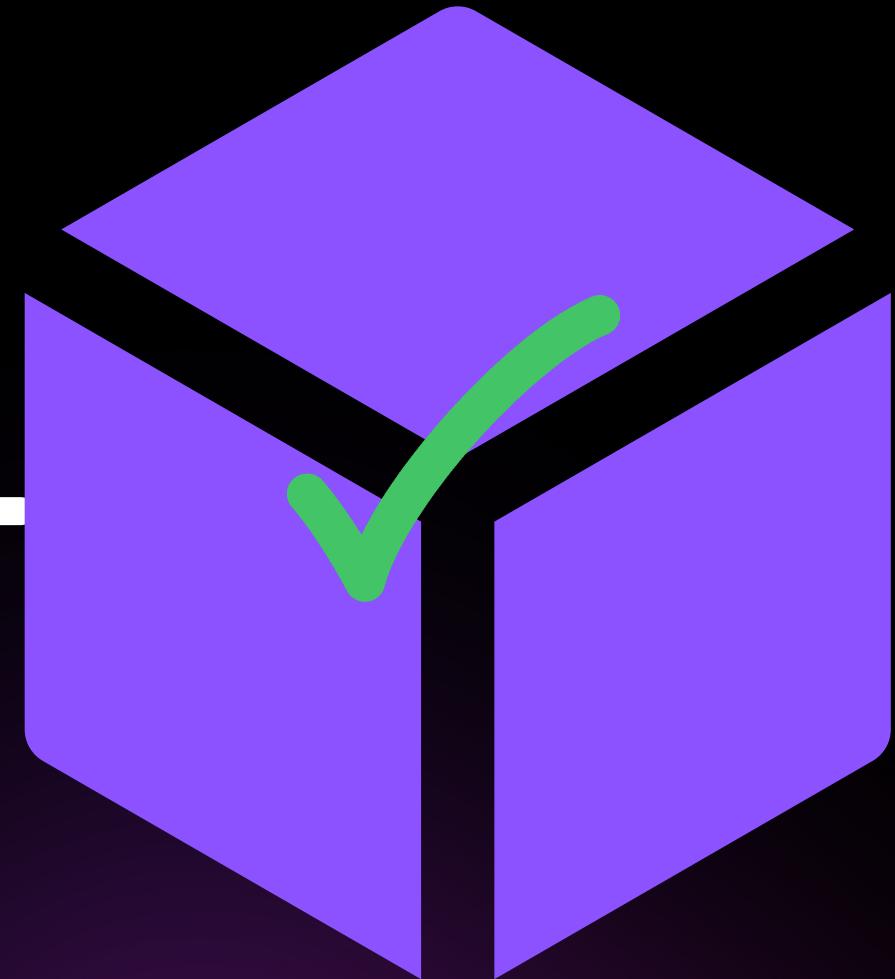


3



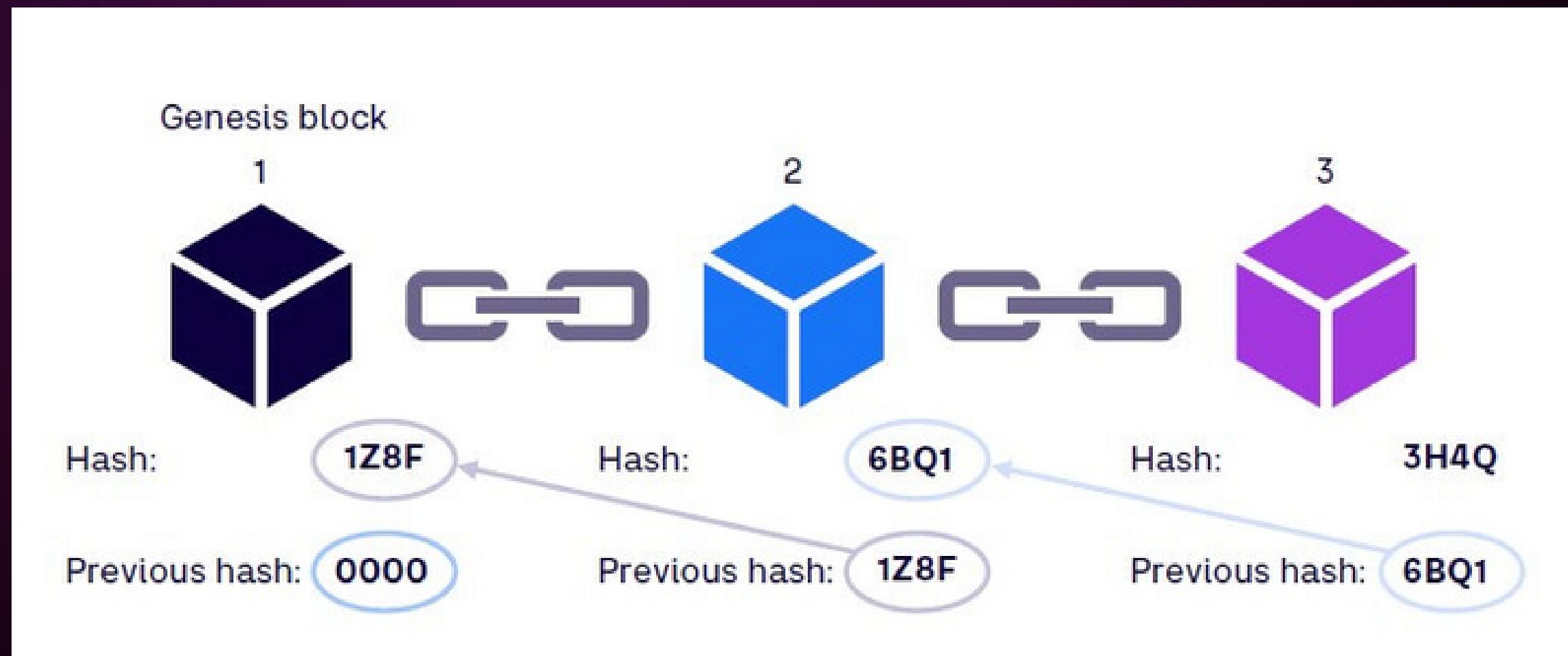
SHA256

Correct Hash Found

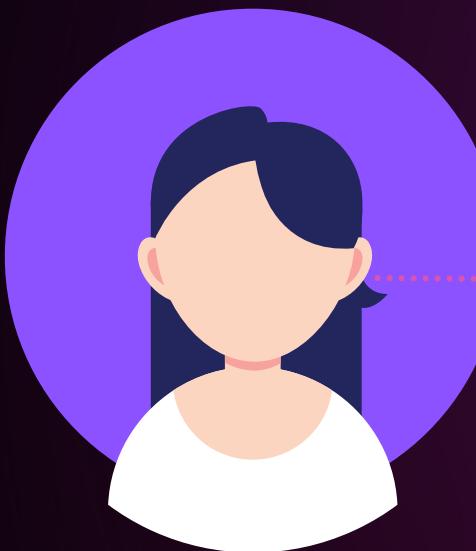


4

Block added to mainchain



User



Start BlockChainED



A decentralized network
initiated with designated users
and miners

Key-pair generated

Transactions done and
distributed to miners in network

Miners perform Proof-of-Work,
BlockHash found .

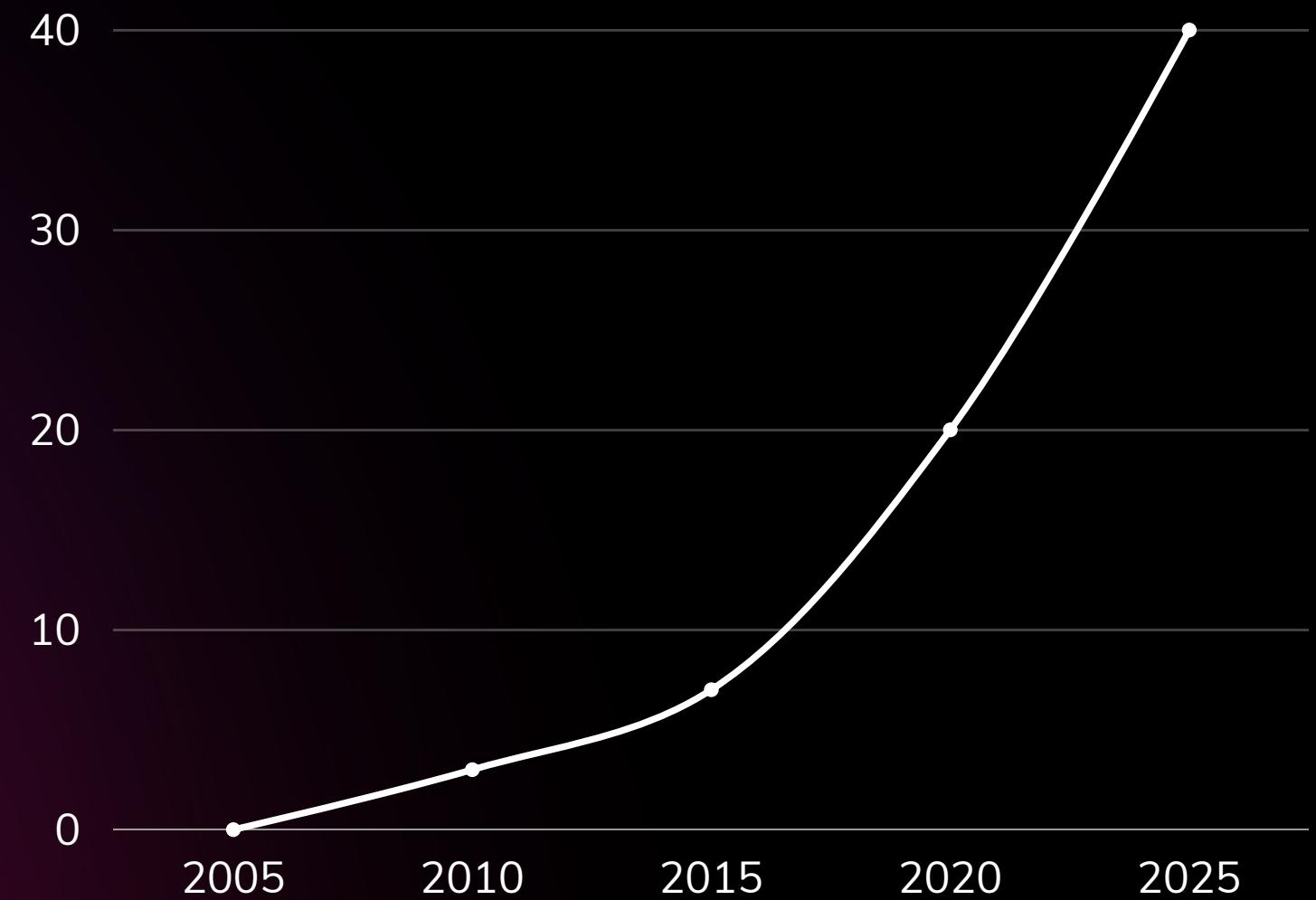
Block added to chain

Every step including functional calculation is shown to
users

Possibilities of the project

- With the increasing popularity and adoption of blockchain, there is a growing demand for individuals with expertise in the field. The project can cater to this demand of learners .
- As the project grows, it can become a hub for individuals and organizations interested in blockchain
- The project can be used by educational institutions to teach students about blockchain and its potential applications in their future careers.

Market Size 2021 \$6.10 billion	CAGR 62.4%	Market Forecast 2030 \$508.1 billion
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Progress until now

SHA256

hash- 37a5537d14ed07cd5ec5
b9b81a5ff7b32eb49e3920
05c51af550eec8d9587d70

Input- "Nusrat Jahan Lia "

```
#include<bits/stdc++.h>
#include "Sha256_Algorithm/Sha256.h"
using namespace std;

int main()
{
    cout<<"\n The hash -\t ";
    cout<<Hash("Nursat jahan Lia ")<<endl;
}
```

Input—"Nusrat Jahan Lia"

```
.cpp > main()
#include<bits/stdc++.h>
#include "Sha256_Algorithm/Sha256.h"
using namespace std;

int main()
{
    cout<<"\n The hash -\n ";
    cout<<Hash("Nursat jahan Lia")<<endl;
}
```

hash- 364ad9995a6a80f5d
8bb72e5b739e80c8c8fa
eb95e9fd22a874c7464cc758ffd

```
Documents/CODES/GIT/Projects/Blockchain  
Blockchain_in_Cpp-SPL-1/" && g++ main.  
chain in Cpp-SPL-1/"main
```

f5d8bb72e5b739e80c8c8faeb95e9fd22a87
uments/CODES/GIT/Projects/Blockchain



BlockChainED

THANK YOU!!