Introduction to Fintech

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<table>
<thead>
<tr>
<th>From</th>
<th>To</th>
<th>Amount</th>
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Change Values

Traditional Database
Creating a Block

Inserting Transactions

Inserting New Hash

Calculating Hash of new block

Copying Hash of previous block

Establishing a chain

Block Created

b&3fO%9Paz#dx

e2dhKL$b$3@mro
## Making a change in a transaction

<table>
<thead>
<tr>
<th>Transactions</th>
<th>Previous Hash</th>
<th>New Hash</th>
</tr>
</thead>
<tbody>
<tr>
<td>A to B 100</td>
<td>00000000000</td>
<td>e2dh3@mro</td>
</tr>
<tr>
<td>A to C 50</td>
<td>e2dh3@mro</td>
<td>b83fO%9Pa</td>
</tr>
<tr>
<td>A to C 30</td>
<td>b83fO%9Pa</td>
<td>t#tj68Mq3@</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Previous Hash</th>
<th>New Hash</th>
</tr>
</thead>
<tbody>
<tr>
<td>B to C 20</td>
<td>b83fO%9Pa</td>
</tr>
<tr>
<td>C to D 30</td>
<td>t#tj68Mq3@</td>
</tr>
<tr>
<td>B to D 30</td>
<td>t#tj68Mq3@</td>
</tr>
<tr>
<td>C to A 40</td>
<td>t#tj68Mq3@</td>
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</tbody>
</table>

**Proof of Work:** To slow creation of Blocks  
In Bitcoin: 1 Block every 8 Minutes  
In Ethereum: 1 Block every 10-19 secs.
Distributed Ledger Technology (DLT)
Distributed Ledger Technology (DLT)
Permissioned Vs. Permission-less Systems

ANONYMOUS

Permission-less Systems

Permissioned Systems

HYPERLEDGER

WORLD BANK GROUP
Public Vs. Private owned platforms

Public

Private (Banks – FI)
DLT as exchange of Value Platform
Cryptocurrency Coins Vs. Tokens

It operates on a different Blockchain Platform

Quantified Unit of Value

Has its own Blockchain Platform

Has its own rules

Coin

Token

WORLD BANK GROUP
Tokenization

Anything of Value

Rule-based
Programmable

Fungible
Global

Tokens Markets