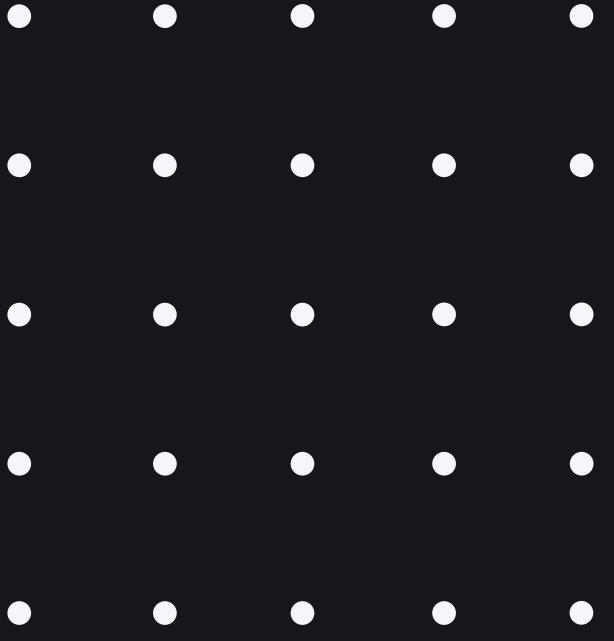
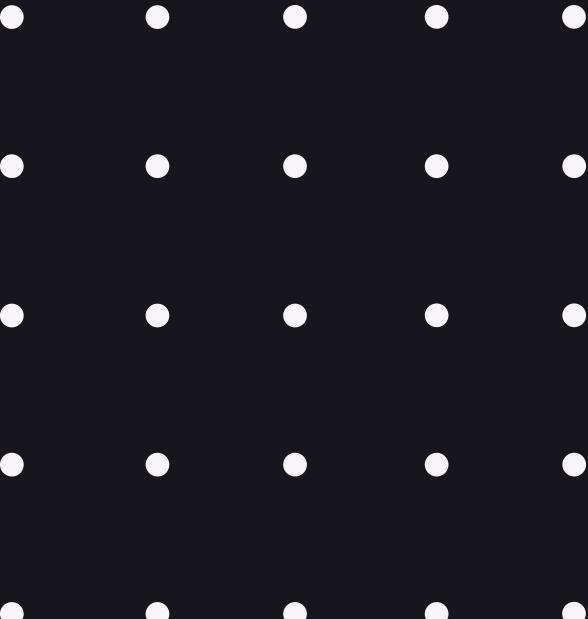


TranSecure

We rise by lifting others





What's happening

- There's an increase in the number of untracked and fraudulent transactions in companies where large volumes of transactions take place on a day to day basis.
- Hence we need a system in place to monitor the internal transactions.



What is TranSecure?

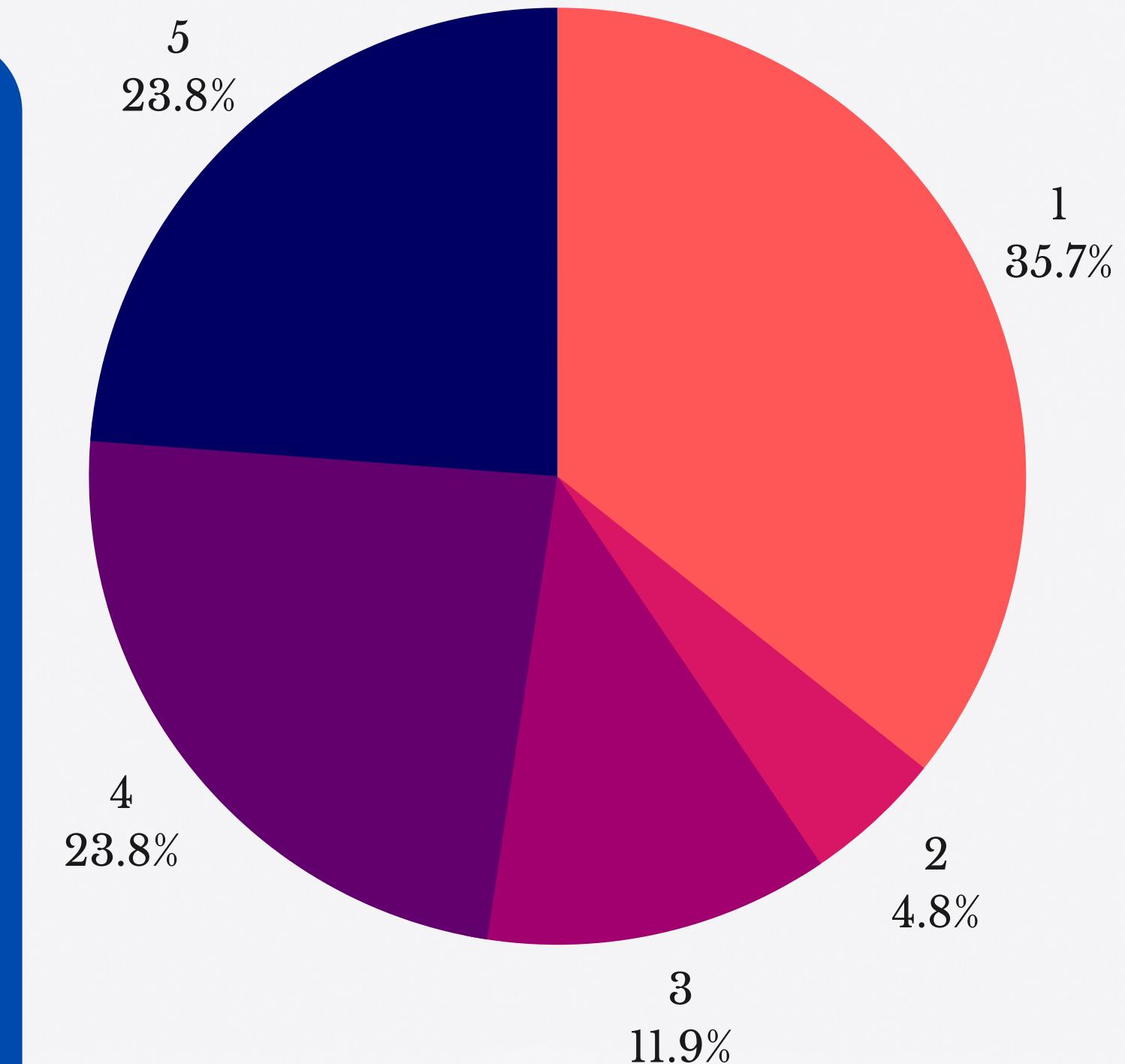
Decentralized intracompany transaction management system to ensure that all transactions are **transparent** and all finances are **accounted** for which is realized by using **Blockchain Technology**.





Why Blockchain?

- **The Word is Out**
- **It's All About Traceability**
- **Competition**
- **Company Mentality**



A “1” in the chart below signifies no knowledge of blockchain, whereas a “5” signifies that the organization is already implementing the technology.

- **The word is out**

Today, many of your supply chain peers and competitors have at least some awareness of blockchain. More than a third of the respondents indicated that they're piloting or using blockchain in their organizations.

- **Its all about Traceability**

Blockchain enhances trust between supply chain partners. Potential applications for blockchain included tracking payment information such as payment orders, verifying, and monitoring suppliers.

- **Competition**

Compared to organizations not considering blockchain, the Explorers are 76% more likely to have a formal business strategy for responding to disruption. They're also 119% more likely to be ready to respond to emerging business trends and 117% more likely to have high revenue growth and profitability.

- **Company Mentality**

One can argue that an organization's approach toward blockchain (and any other truly disruptive technology) is reflective of the overall company culture. In other words, they are "committed to wholesale reinvention."

WHAT WE DO



**Creating a portal
for all company
transactions to
be done**



**All transactions
are confirmed at
specific times
throughout the
day**



**Each transaction
is verified before
being committed**



**All transactions
stay in the
blockchain at all
times**



**All transactions
can be traced
back hence
reduces
fraudulence**



**If there's a fraudulent
transaction it
immediately gets flagged
as an impossible
transaction**

How to get started?

Register your company →

The admin (CEO/CFO) registers their company with TranSecure

Employees are added to the portal →

Each employee is provided with a unique encrypted ID with which they can login

Transactions are committed to website →

All the internal transactions that are performed are to be made through the portal



How to get started?



Verification is done →

Each transaction is verified based on previous transaction history

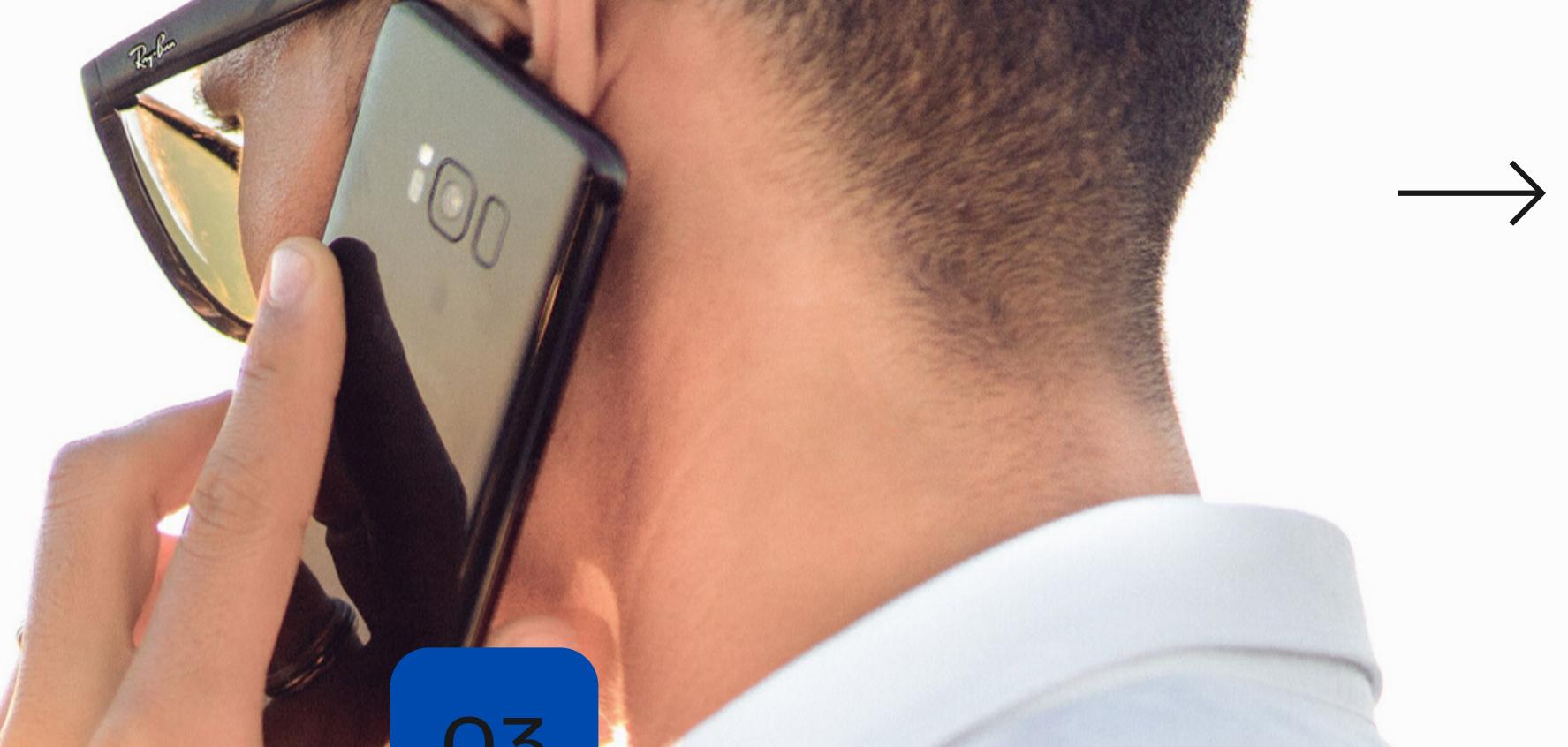
Transaction is added to the blockchain →

All legitimate transactions are added to the blockchain after the verification is completed

View transactions →

The transaction history can be viewed on the chain by everyone in the company and hence decreases chances of fraudulence

How is Verification done?



01

02

03

In order to verify if a transaction is valid, it traces back the user through the chain

Each transaction is verified based on previous transaction history

In short it checks whether the person does have those funds allocated to him

WHY TRANSACTIONS ARE SECURE

● Accountability

Since all transactions can be seen in the blockchain, the employees can be held accountable for their actions. This makes the system more transparent.

● Management

This system helps the finance department to keep track of the transactions made and update records.

● Immutability

Once a block is committed into the blockchain, it cannot be changed, and thus it acts as proof for the verification of the future blocks.

● Security

Since each user has a unique and encrypted ID, the system becomes more secure.

The following
are the
screenshots
from our project





WE RISE BY LIFTING OTHERS

TRANSECURE

HOME

ABOUT US

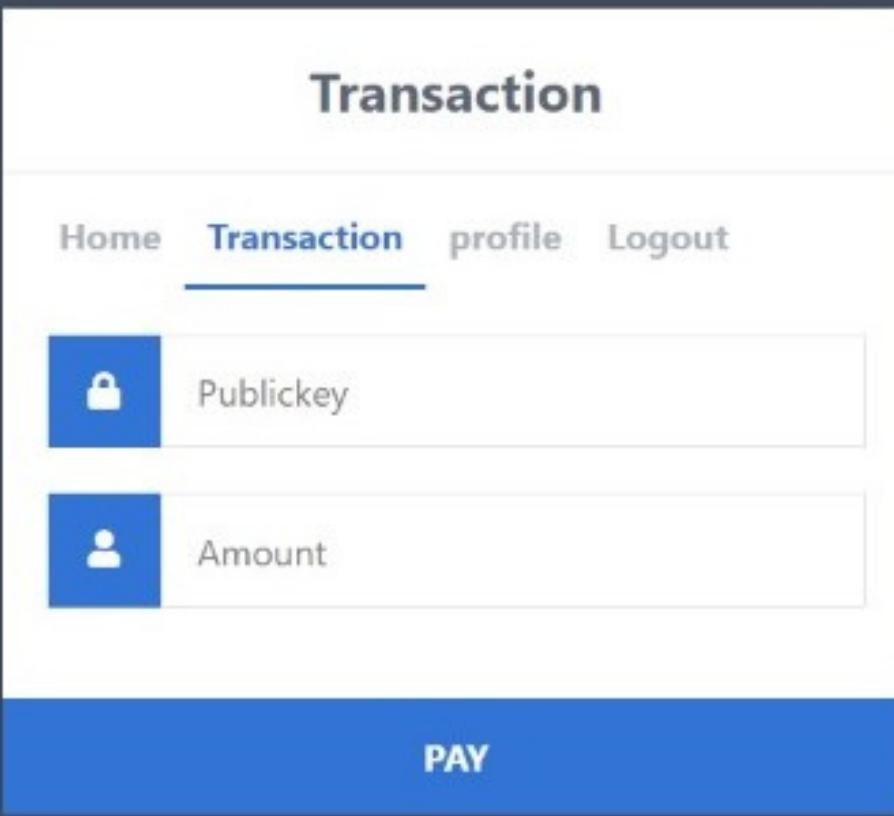
SIGN IN

SIGN UP



This is the homepage of the website.

From here the user can sign in or register their company.



In order to make the transaction, the user inputs the recipient ID and the amount to be paid.



POST <http://0.0.0.0:5002/wallet> Send ▾

Params Authorization Headers Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (5) Test Results Status: 201 CREATED Time: 204 ms Size: 1.73 KB Save Response ▾

Pretty Raw Preview Visualize JSON ▾

1 "funds": 0,
2 "private_key":
3 "3082025b02010002818100a9e09904f83ea496b17ddd4516e2cc60d5d5117adc618ae08f863e9e18708aeffe5d5727971f25e4e2569e3e4d9560966caa0ea8a9b29d8ee1ccaf7ffbef89dd9881e796192de11476a26b1f42fb0710158
6764d8dab89252dd424f4d4069e06a4c28a98842d66ec3cede5de0dbf3422ae7621c7faf8ffa38a76b2a0c4c1257102030100010281801be0badbe0ed4ecf581362b38adcef5358e41d793f1f56ce215f93791863a7b958d1f29291af4
fe5aeeb2e0ee56685324a64e200f5d05520f4974599c83b78313b4f4fa3723f1a7452a9b69c1e950cf119549aec7468493927620f9360b28617f5bca5c9c766cd4c401925e67ee032b45326e6e10c6c350f58d857477dd37751024100b
557525ddad096c99a118fe463fdf87ca9419c9f60fa4e5766991ee3c44cf3db36d92c6abab6d640a51c119e8502f5037a27a43b8999196ad9cced2d10cd7515024100efd109a53748290daf7561a00142b72b0a72366a3bb7d4f6f15b4
70fd74a7c872b708216562c058a8b9352a04c54b6ca53a03479957424e198fc9a34c3fefded024029858b088e77c06efce6148a7912c7f8d35080aa45ac4a8fdca026e0842c12921926f4f2a33a0628db25682b61cd6188a049bf631a8
881b7639376a320fbca590240094026ff1882d01297121011fbfa76d65230d5a8836533f1d29d92c029add5dfe0ed1617867b6c3b4be702e8ec08d88435759890981342d8f0edcd84fb8a7a8102402bd83ec0267baa592a2ccb233f4d2
052d0d863605f0e081ec81e50c28bd6c4453049e4294dee712fa30fdca01cc39b32b85590a773c6df49c7b2b5e97f1a7ef6",
4 "public_key":
5 "30819f300d06092a864886f70d010101050003818d0030818902818100a9e09904f83ea496b17ddd4516e2cc60d5d5117adc618ae08f863e9e18708aeffe5d5727971f25e4e2569e3e4d9560966caa0ea8a9b29d8ee1ccaf7ffbef89d
d9881e796192de11476a26b1f42fb07101586764d8dab89252dd424f4d4069e06a4c28a98842d66ec3cede5de0dbf3422ae7621c7faf8ffa38a76b2a0c4c125710203010001"

Creating a Wallet



GET <http://0.0.0.0:5001/wallet> Send

Params Authorization Headers Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (5) Test Results Status: 201 CREATED Time: 12 ms Size: 1.73 KB Save Response

Pretty Raw Preview Visualize JSON

```
1
2   "funds": 10,
3   "private_key":
4     "3082025b02010002818100cb5c765ff27eea5dad07da6f29cbed3a459292cb6177a5616a8767ffd32dfe929a21db777f52ee3bcd5d4e816988bbc7221a23bb19b3ea1dbdec7b60490abe256227999ab4709423591e049e7bf524fef73
5       346542c099c856972d018235b2aeec35bf2179faa6da805f2078f83464856013fac55c53065c03edbd2117fe72be5020301000102818021b59c7bb01740a3318cf534eb113e2c241f354d18457c7906ef161aae7757d5164e997217fd7
6       7b71b0625fec6af1f2d55a64e98f39c42a91673ee499a21f93dae7046f6fc6587093db9be110772a07ef26badac990c22566f53abf6c7694e0ba851605afe672e930536570bd43627bf2d707cf08ff11b3ef9fca5be26e5788b024100d
7       b1786d87826a11c9df05ea1b22c576c5ef6b6f24bb68c7290b61948c39c86d652f9dbc095f8f25fb5c5ce34bc74b677ec1fc2b2a37a4eda3c65bceccb02d7024100ed9e89e5de88dbaaba062574ec4ab811547bda958095e8757f8d6
8       6743d1d1d5cd40a1441edded8531f717cda5ce87542af736c804b387e3d763611db511feba302403fdf31feb5b87d4bbc77b0feeed4a2800387657a69bc4461b9f27c988bfe7c08cb93f00ecb2a126ef8ad3c1a7fd449105111d3888d4
9       fbf7e717d1e23dfdca76d02406021002697958450983b3e5203f9e267586756b19eb886b76a27b92813454108b9db6e00920bd236268551fe4111e5c6599677719b7cba4d811234bd261fa4c30240364d6d31919387339b44a30b54111
10      e3e27e677bf80f88229ecfe7487fb4ed8979f97e2c6940047a8574965d953b625fb00537718904ae89362f2dd678239557d",
11
12   "public_key":
13     "30819f300d06092a864886f70d010101050003818d0030818902818100cb5c765ff27eea5dad07da6f29cbed3a459292cb6177a5616a8767ffd32dfe929a21db777f52ee3bcd5d4e816988bbc7221a23bb19b3ea1dbdec7b60490abe2
14       56227999ab4709423591e049e7bf524fef73346542c099c856972d018235b2aeec35bf2179faa6da805f2078f83464856013fac55c53065c03edbd2117fe72be50203010001"
```

Viewing existing wallet

POST <http://0.0.0.0:5001/transaction> Send

Params Authorization Headers **Body** Pre-request Script Tests Settings Cookies

none form-data x-www-form-urlencoded raw binary GraphQL [JSON](#) [Beautify](#)

```
1 {
2   "recipient": "30819f300d06092a864886f70d010101050003818d0030818902818100a9e09904f83ea496b17ddd4516e2cc60d5d5117adc618ae08f863e9e18708aeffe5d5727971f25e4e2569e3e4d9560966caa0ea8a9b29d8ee1ccaf7ffbef89dd9881e796192de11476a26b1f42fb07101586764d8dab89252dd424f4d4069e86a4c28a98842d66ec3cede5de0dbf3422ae7621c7faf8ffa38a76b2a0c4c125710203010001",
3   "amount": 5
4 }
```

Body Cookies Headers (5) Test Results Status: 201 CREATED Time: 414 ms Size: 1.18 KB [Save Response](#)

Pretty Raw Preview Visualize [JSON](#)

```
1 {
2   "funds": 5,
3   "message": "Successfully added transaction.",
4   "transaction": {
5     "amount": 5,
6     "recipient": "30819f300d06092a864886f70d010101050003818d0030818902818100a9e09904f83ea496b17ddd4516e2cc60d5d5117adc618ae08f863e9e18708aeffe5d5727971f25e4e2569e3e4d9560966caa0ea8a9b29d8ee1ccaf7ffbef89dd9881e796192de11476a26b1f42fb07101586764d8dab89252dd424f4d4069e86a4c28a98842d66ec3cede5de0dbf3422ae7621c7faf8ffa38a76b2a0c4c125710203010001",
7     "sender": "30819f300d06092a864886f70d010101050003818d0030818902818100cb5c765ff27eea5dad07da6f29cbed3a459292cb6177a5616a8767ffd32dfe929a21db777f52ee3bcd5d4e816988bbc7221a23bb19b3ea1dbdec7b60490abe256227999ab4709423591e049e7bf524fef73346542c099c856972d018235b2aeec35bf2179faa6da805f2078f83464856013fac55c53065c03edb2117fe72be50203010001",
8     "signature": "2f04aa00262eef3545f071e0c17f67e62eb298a16a51085640c1cd710fdfc98323ea1f6eb974ac55c420520f731b893ce798fe65ec879064557a44eab1069110d521961cf4d18976ff35a6774c98b6e6b62f45090016b6f94807f709991802b1f4567f68a526a4218b77bb1a0e6b2648b49f734c379a2f0d1889b8838bc1523c"
9   }
10 }
```

Adding a transaction



GET <http://0.0.0.0:5001/transactions> Send

Params Authorization Headers Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (5) Test Results Status: 200 OK Time: 3 ms Size: 1.11 KB Save Response

Pretty Raw Preview Visualize JSON

```
1 [ {  
2   "amount": 5,  
3   "recipient":  
4     "30819f300d06092a864886f70d010101050003818d0030818902818100a9e09904f83ea496b17ddd4516e2cc60d5d5117adc618ae08f863e9e18708aeffe5d5727971f25e4e2569e3e4d9560966caa0ea8a9b29d8ee1ccaf7ffbe  
f89dd9881e796192de11476a26b1f42fb07101586764d8dab89252dd424f4d4069e06a4c28a98842d66ec3cede5de0dbf3422ae7621c7faf8ffa38a76b2a0c4c125710203010001",  
5   "sender":  
6     "30819f300d06092a864886f70d010101050003818d0030818902818100cb5c765ff27eea5dad07da6f29cb3a459292cb6177a5616a8767ffd32dfe929a21db777f52ee3bcd5d4e816988bbc7221a23bb19b3ea1dbdec7b60490  
abe256227999ab4709423591e049e7bf524fef73346542c099c856972d018235b2aeecc35bf2179faa6da805f2078f83464856013fac55c53065c03edbd2117fe72be50203010001",  
6   "signature":  
7     "2f04aa00262eef3545f071e0c17f67e62eb298a16a51085640c1cd710fdfc98323ea1f6eb974ac55c420520f731b893ce798fe65ec879864557a44eab1069110d521961cf4d18976ff35a6774c98b6e6b62f45090016b6f94807f  
709991802b1f4567f68a525a4218b77bb1a0e6b2548b49f734c379a2f0d1889b0838bc1523c"  
8 } ]
```

Viewing all transactions

POST

http://0.0.0.0:5001/mine

Send

Params Authorization Headers Body Pre-request Script Tests Settings

Cookies

Body Cookies Headers (5) Test Results

Status: 201 CREATED Time: 6 ms Size: 1.7 KB

Save Response

Pretty Raw Preview Visualize

JSON



```
1
2   "block": {
3     "index": 5,
4     "previous_hash": "3758a4e4ec44fdcfc8c29697c58f4171e9cd8ff84c6407400468f10f9a6cacef",
5     "proof": 84,
6     "timestamp": 1688734825.864664,
7     "transactions": [
8       {
9         "amount": 5,
10        "recipient":
11          "30819f300d06092a864886f70d010101050003818d0030018902818100a9e09904f83ea496b17ddd4516e2cc60d5d5117adc618ae08f863e9e18708aeffe5d5727971f25e4e2569e3e4d9560966caa8ea8a9b29d8ee1c
12            caf7ffbef89dd9881e796192de11476a26b1f42fb07101586764d8dab89252dd424f4d4069e06a4c28a98842d66ec3cede5de0dbf3422ae7621c7faf8ffa38a76b2a0c4c125710283010001",
13        "sender":
14          "30819f300d06092a864886f70d010101050003818d0030018902818100cb5c765ff27eea5dad07da6f29cbed3a459292cb6177a5616a8767ffd32dfe929a21db777f52ee3bcd5d4e816988bbc7221a23bb19b3ea1dbde
15            c7b60490abe256227999ab4709423691e049e7bf524fef73346542c099c856972d018235b2aec35bf2179faa6da885f2078f83464856013fac55c53065c03edbd2117fe72be50283010001",
16        "signature":
17          "2f04aa00262eef3546f071e0c17f67e62eb298a16a51086640c1cd710fdic98323ea1f6eb974ac55c420620f731b893ce798fe66ec879864557a44eab1069110d521961cf4d18976ff35a6774c98b6e6b62f45090016b
18            6f94807f789991802b1f4567f68a525a4218b77bb1a0e6b2548b49f734c379a2f0d1889b0038bc1623c"
19      },
20    ],
21  },
22  "funds": 15,
23  "message": "Block added successfully."
24 }
```

Mining a block

GET <http://0.0.0.0:5001/chain> Send

Params Authorization Headers Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (5) Test Results Status: 200 OK Time: 3 ms Size: 4.76 KB Save Response

Pretty Raw Preview Visualize JSON

```
1  [
2    {
3      "index": 0,
4      "previous_hash": "",
5      "proof": 100,
6      "timestamp": 0,
7      "transactions": []
8    },
9    {
10      "index": 1,
11      "previous_hash": "c775ae7455f086e2fc68520d31bfebfd18ffeaceb933085c510d5f8d2177813",
12      "proof": 92,
13      "timestamp": 1608611196.706698,
14      "transactions": [
15        {
16          "amount": 10,
17          "recipient":
18            "30819f300d06092a864886f70d010101050003818d0030018902818100f60db7e7a6058663e17b1e18f4d1330993a465c05984076cbc366fc25080ab0f17c90592f04453f678df0d40d4986b93d8419e25cee95389f0d
19            def8f6e7a4d37f81c3ecdad3e4505d5e7abd98811c57ffd9cc4050d3e8ece4503a6bb1e1d518bab3aa4930a4f8a38e3271a6ffc3f632655c4815ad57a09e231a1e3799b9df3910203010001",
20          "sender": "MINING",
21          "signature": ""
22        }
23      ],
24    }
25  ]
```

Printing a whole blockchain

```
23  {
24      "index": 2,
25      "previous_hash": "4d984c9116b5aefac12e80c555eccd1a71a7f333be589987820a63fb0464ff06",
26      "proof": 823,
27      "timestamp": 1608611196.786598,
28      "transactions": [
29          {
30              "amount": 10,
31              "recipient":
32                  "30819f300d06892a864886f70d010101050003818d0030818902818100f60db7e7a6058663e17b1e18f4d1330993a465c05984076cbc366fc25080ab0f17c90592f04453f678df0d40d4986b93d8419e25cee95389f0d
33                      def8f6e7a4d37f81c3ecdad3e4505d5e7abd98811c57ffd9cc4050d3e8ece4503a6bb1e1d518bab3aa4930a4f8a38e3271a6ffc3f632655c4815ad57a09e231a1e3799b9df3910203010001",
34              "sender": "MINING",
35              "signature": ""
36          }
37      ],
38      {
39          "index": 3,
40          "previous_hash": "b3b5f99d8e6826078b03b91dbdd4a3ce3ff9f6dafea99dca5c1c32cebe2821f2",
41          "proof": 354,
42          "timestamp": 1608643197.2289486,
43          "transactions": [
44              {
45                  "amount": 10,
46                  "recipient":
47                      "30819f300d06892a864886f70d010101050003818d0030818902818100b1520d855f093623071c3a32b3fb929ef6f30db927654665014b8b00d32affa2ecd11faa27289bc2b79b3c1347fd9043199912b6b470c73298a
48                          296369c6fc4f8e1dafaaaf0552b1baa5f56d07706681481e5d84a1069634868cc17a326ab1a922e2ead02e62a76246ec16a6d1e2fe064637e55fe509b69002fed42aad8016e2bf0203010001",
49                  "sender":
50                      "30819f300d06892a864886f70d010101050003818d0030818902818100f60db7e7a6058663e17b1e18f4d1330993a465c05984076cbc366fc25080ab0f17c90592f04453f678df0d40d4986b93d8419e25cee95389f0d
51                          def8f6e7a4d37f81c3ecdad3e4505d5e7abd98811c57ffd9cc4050d3e8ece4503a6bb1e1d518bab3aa4930a4f8a38e3271a6ffc3f632655c4815ad57a09e231a1e3799b9df3910203010001",
52                  "signature":
53                      "129a8c0b8ed7ddb91f8c737577a0f85f6ad16b0a17f0@feeb733dd68e8237ae4d5edd586053f7a10a3eec9d16fc29eb1bf9efdb571764ed9c714977f46bedca4ffd0c52ee26bcbcc5feb3344fc51ca0823ce4ca5294ef
54                          3f242c794ff7f17bd0f15aed383dd2dff40773eccfb5a2923ae8fac24d4b4e5501d2b7ace4faff38ec7"
55          }
56      ]
57  }
```

Printing a whole blockchain

```
"index": 4,
"previous_hash": "9dacb369493e3bd0f447ceed79e4e3674b4892549ef060ff08003cb97ed30003",
"proof": 154,
"timestamp": 1608643197.2289486,
"transactions": [
{
  "amount": 10,
  "recipient":
    "30819f300d06092a864886f70d010101050003818d0030818902818100cb5c765ff27eea5dad07da6f29cbcd3a459292cb6177a5616a8767ffd32dfe929a21db777f52ee3bcd5d4e816988bbc7221a23bb19b3ea1dbde
    c7b60490abe256227999ab4709423591e049e7bf524fef73346542c099c856972d018235b2aeee35bf2179faa6da805f2078f83464856013fac55c53065c03edb2117fe72be50203010001",
  "sender": "MINING",
  "signature": ""
}
],
},
{
  "index": 5,
  "previous_hash": "3750a4e4ec44fdcf0c29697c58f4171e9cd0ff04c6407400468f10f9a6cacef",
  "proof": 84,
  "timestamp": 1608734825.064664,
  "transactions": [
{
  "amount": 5,
  "recipient":
    "30819f300d06092a864886f70d010101050003818d0030818902818100a9e09904f83ea496b17ddd4516e2cc60d5d5117adc618ae08f863e9e18708aeffe6d5727971f25e4e2569e3e4d9560966caa0ea8a9b29d8ee1c
    caf7ffbef89dd9881e796192de11476a26b1f42fb07101586764d8dab89252dd424f4d4069e06a4c28a98842d66ec3cede5de0dbf3422ae7621c7faf8ffa38a76b2a0c4c125710203010001",
  "sender":
    "30819f300d06092a864886f70d010101050003818d0030818902818100cb5c765ff27eea5dad07da6f29cbcd3a459292cb6177a5616a8767ffd32dfe929a21db777f52ee3bcd5d4e816988bbc7221a23bb19b3ea1dbde
    c7b60490abe256227999ab4709423591e049e7bf524fef73346542c099c856972d018235b2aeee35bf2179faa6da805f2078f83464856013fac55c53065c03edb2117fe72be50203010001",
  "signature":
    "2f04aa00262eef3545f071e0c17f67e62eb298a16a51085640c1cd710fdfc98323ea1f6eb974ac55c420520f731b893ce798fe65ec879864557a44eab1069110d521961cf4d18976ff35a6774c98b6e6b62f45090016b
    6f94807f709991802b1f4567f68a625a4218b77bb1a0e6b2548b49f734c379a2f0d1889b0838bc1523c"
}]]
```

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},
{
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  "sender": "MINING",
  "signature": ""
}
]
```

Printing a whole blockchain

THANK YOU

Ashley Thomas Roy
Jocelyn John
Lijo Zechariah James
Sandra Sam

