



WHAT IS BLOCKCHAIN?

Kelompok

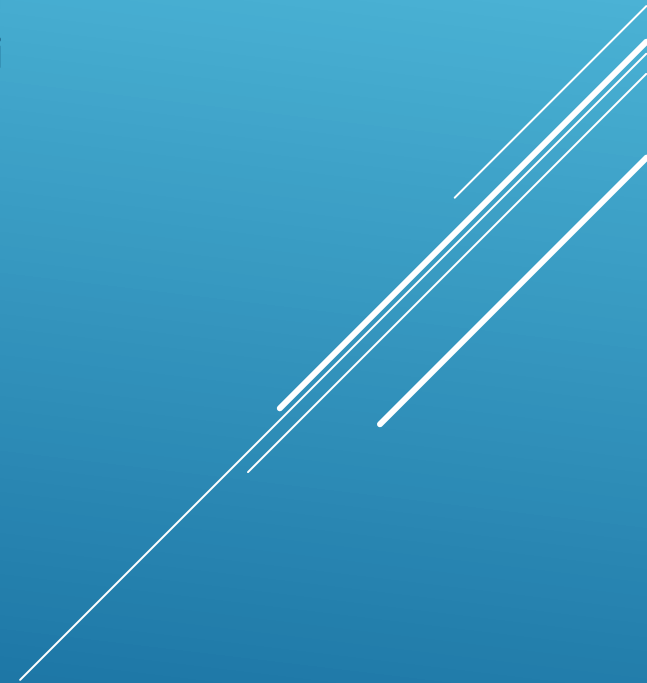
BITCOIN

merupakan salah satu protokol pertama yang menggunakan teknologi revolusioner yang disebut dengan blockchain.

Buku putih Bitcoin dibuat oleh pseudo anonim Satoshi Nakamoto, dan menguraikan bagaimana Bitcoin dapat melakukan transaksi peer to peer.

Dalam jaringan terdesentralisasi jaringan ini didukung oleh kriptografi, Tality yang layak, dan memungkinkan orang untuk terlibat dalam keuangan tahan sensor, dengan cara yang terdesentralisasi karena fitur-fiturnya.

Pengembang Bitcoin memandang Bitcoin sebagai penyimpan nilai versus Aetherium, pengembang memandang Aetherium sebagai penyimpan nilai dan utilitas untuk memfasilitasi perjanjian terdesentralisasi ini. Sekarang, kontrak pintar di blockchain saja benar-benar luar biasa. Namun, mereka datang dengan masalah besar. Jika kita ingin perjanjian digital ini menggantikan perjanjian dalam kehidupan kita sehari-hari, mereka mungkin akan membutuhkan data dari blockchain dunia nyata sendiri yang sebenarnya tidak dapat berinteraksi dengan dan tidak dapat membaca atau mendengarkan data dari dunia nyata. Inilah yang dikenal sebagai masalah Oracle.



Blockchain ini adalah sistem deterministik dan mereka deterministik dengan sengaja. Oracle adalah perangkat apa pun yang mengirimkan data ke blockchain terdesentralisasi ini atau menjalankan komputasi eksternal. Jadi membutuhkan jaringan Oracle yang terdesentralisasi, maka menggunakan logika rantai akan terdesentralisasi, tetapi juga perlu data off chain dan komputasi Anda didesentralisasi, menggabungkan ini pada logika terdesentralisasi rantai.

Dengan off chain ini, data terdesentralisasi dan komputasi terdesentralisasi menimbulkan sesuatu yang disebut kontrak pintar hibrida. Dan sebagian besar protokol terbesar yang berinteraksi dengan kita saat ini adalah beberapa jenis kontrak pintar hybrid atau berinteraksi dengan kontrak pintar hybrid. Sampai batas tertentu, di sinilah rantai protokol berperan. Ini adalah jaringan Oracle modular dan terdesentralisasi yang dapat membawa data eksternal dan komputasi eksternal ke dalam kontrak pintar kami untuk memastikan mereka terdesentralisasi dari ujung ke ujung, sambil memberi mereka kekayaan fitur yang di butuhkan untuk perjanjian ini.

Variabel pada dasarnya adalah pemegang untuk nilai yang berbeda. Misalnya, kita dapat membuat variabel yang disebut memiliki nomor favorit untuk mewakili jika seseorang memiliki nomor favorit.

fungsi atau metode adalah modul mandiri yang akan menjalankan beberapa set instruksi khusus untuk kita, ketika kita menyebutnya jika Anda terbiasa dengan Java, atau Python, atau JavaScript atau semacamnya fungsi itu bekerja dengan cara yang sama persis dengan fungsi yang diidentifikasi oleh fungsi kata kunci,

KITA AKAN MEMBUAT META MASK
BARU.



Secret Backup Phrase

Your secret backup phrase makes it easy to back up and restore your account.

WARNING: Never disclose your backup phrase. Anyone with this phrase can take your Ether forever.

empower damp crater gift muscle
pepper innocent pig genius joy
unfair unable

[Remind me later](#)

[Next](#)

Tips:

Store this phrase in a password manager like 1Password.

Write this phrase on a piece of paper and store in a secure location. If you want even more security, write it down on multiple pieces of paper and store each in 2 - 3 different locations.

Memorize this phrase.

[Download this Secret Backup Phrase and keep it stored safely on an external encrypted hard drive or storage medium.](#)

SUSUN MENJADI SEBUAH
KALIMAT UNTUK MEMVERIFIASI
AKUN



< Back

Confirm your Secret Backup Phrase

Please select each phrase in order to make sure it is correct.

empower	damp	crater	gift
muscle	pepper	innocent	pig
genius	unfair	joy	unable

crater	damp	empower	genius
gift	innocent	joy	muscle
pepper	pig	unable	unfair

SETELAH MELEWATI BEBERAPA
VERIFIKASI AKUN METAMASK
MAKA KITA AKAN MEMILIKI
AKUN BARU



Congratulations

You passed the test - keep your seedphrase safe, it's your responsibility!

Tips on storing it safely

- Save a backup in multiple places.
- Never share the phrase with anyone.
- Be careful of phishing! MetaMask will never spontaneously ask for your seed phrase.
- If you need to back up your seed phrase again, you can find it in Settings -> Security.
- If you ever have questions or see something fishy, contact our support [here](#).

*MetaMask cannot recover your seedphrase. [Learn more](#).



Account 1

0x106...0Ab8 



0 ETH

\$0.00 USD



Buy



Send



Swap

Assets

Activity



0 ETH

\$0.00 USD



Don't see your token?

[Refresh list](#) or [import tokens](#)

All Filters Search by Address / Txn Hash / Block / Token / Ens

 MARKET CAP
\$134,954,004,988.00

 DIFFICULTY
11,654.66 TH

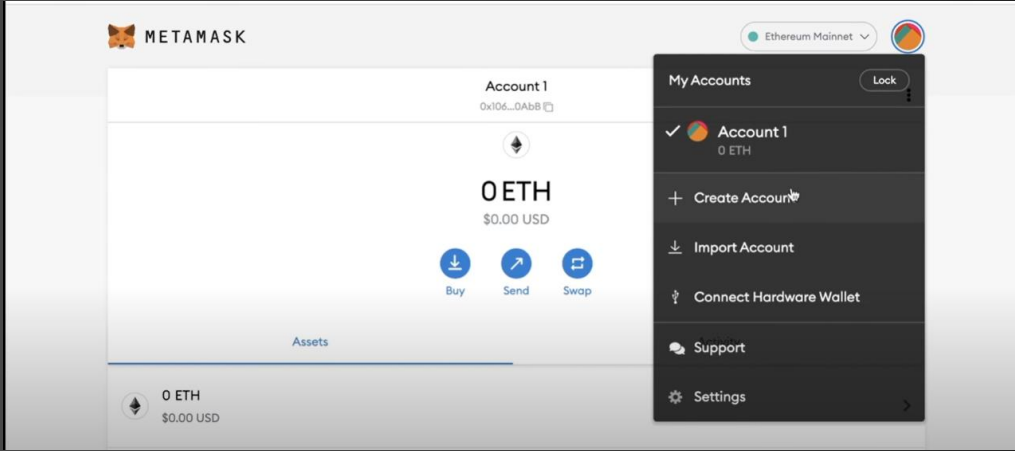
HASH RATE
893,897.67 GH/s

The chart displays the daily volume of tweets for the #BlackLivesMatter hashtag. The y-axis represents the number of tweets, with major gridlines at 640k and 1,280k. The x-axis marks the dates June 21, June 28, and July 5. The data shows a period of relative stability around 800k-900k tweets per day from June 21 to June 27. Starting on June 28, there is a sharp increase, with the volume rising to approximately 1,200k by June 30 and remaining high through July 5.

Date	Approximate Number of Tweets (k)
Jun 21	850
Jun 22	820
Jun 23	880
Jun 24	780
Jun 25	750
Jun 26	820
Jun 27	850
Jun 28	950
Jun 29	1,150
Jun 30	1,200
Jul 1	1,250
Jul 2	1,220
Jul 3	1,200
Jul 4	1,220
Jul 5	1,250

Bk	15088876 47 secs ago	Miner MiningPoolHub 357 txns in 11 secs	2.15121 Eth
Bk	15088875 58 secs ago	Miner Poolin 2 147 txns in 15 secs	2.19511 Eth
Bk	15088874 1 min ago	Miner 2Miner 139 txns in 11 secs	2.19511 Eth

TX	From	To	Value	Age
Tx	0xdcb489339761...	From 0xda801201925b1873e9... To 0xc3fa65864dfb6d4aea...		0 Eth
	47 secs ago			
Tx	0x552559a5c269...	From 0x39a708a6b505ba140b... To 0xd514dd51f061b694dfe...	1.33899 Eth	
	47 secs ago			





Ethereum Mainnet ▾



Account Name

Account 2

Cancel

Create



Account 1



0x1066618d0973e44Efd2Fe5114fD18b
64c6420AbB

[View on Etherscan](#)

[Export Private Key](#)

Assets

0 ETH
\$0.00 USD

Activity

Don't see your token?
[Refresh list](#) or [import tokens](#)

SmartContractKit/FullBlockchainSecurityCourse.js

<> Code

Issues

Pull requests

Actions

Projects

Wiki

Security

Insights

main

1 branch

0 tags

Go to file

Code

PatrickAlphaC added faucetaf815b4 now 12 commits

.outline.md	wip	20 days ago
README.md	added faucet	17 seconds ago
cronological-updates.txt	added updates file	13 minutes ago

README.md

Welcome to the repository for the Ultimate Solidity, Blockchain, and Smart Contract - Beginner to Expert Full Course | Javascript Edition FreeCodeCamp course!

All code references have both a javascript and a typescript edition.

Recommended Testnet: Rinkeby

Testnet Faucets: <https://faucets.chain.link>

About

No description, website, or topics provided.

Readme

0 stars

1 watching

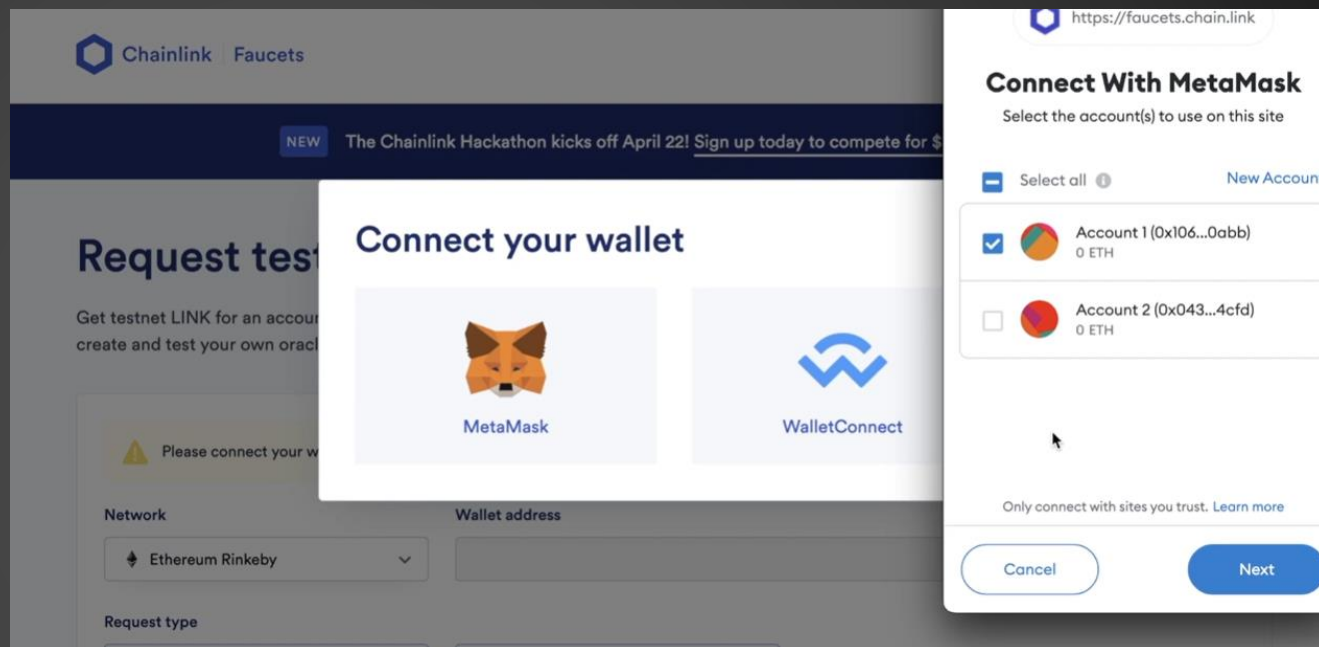
0 forks

Releases

No releases published

Packages

No packages published



Request testnet LINK

Get testnet LINK for an account on one of the supported blockchain testnets so you can create and test your own oracle and Chainlinked smart contract. [Learn more](#)

Network

🔥 Ethereum Rinkeby

Wallet address

0x1066618d0973e44efd2fe5114fd18b64c6420abb

Request type

☒ 10 test LINK

☒ 0.1 test ETH

☐ I'm not a robot



Send request

Get testnet LINK for an account on one of the supported blockchain testnets so you can create and test your own oracle and Chainlinked smart contract. [Learn more](#)

Network

⚡ Ethereum Rinkeby

Request type

☐ 10 test LINK

☒ I'm not a robot

Send request

? Need more testnet LINK?



Waiting for confirmation

Transactions have been initiated. Waiting for confirmation.

Request type

0.1 test ETH

Transaction hash

0x8b8ff2c073b26d8fdba938d32835384d5904284aecdbfc919eeaae1fb2c5e0e7

Close

Overview

State

[This is a Rinkeby **Testnet** transaction only]

Transaction Hash:

0x8b8ff2c073b26d8fdb938d32835384d5904284aecdbfc919eeeee1fb2c5e0e7

Status:

Success

Block:

10394763

45 Block Confirmations

Timestamp:

11 mins ago (Mar-26-2022 04:09:16 PM +UTC)

From:

0xa7a82dd06901f29ab14af63faf3358ad101724a8

To:

0x1066518d0973e44efd2fe5114fd18b64c6420abb

Value:


0.1 Ether (\$0.00)

Transaction Fee:

0.000052500000483 Ether (\$0.00)

Gas Price:

0.000000002500000023 Ether (2.500000023 Gwei)



Rinkeby Testnet Network


Address 0x1066618d0973e44EfD2Fe5114fD18b64c6420AbB

Overview

Balance: 0.1 Ether

Transactions

Latest 1 from a total of 1 transactions

Txn Hash	Method ⓘ	Block	Age	From
 0x8b8ff2c073b26d8fde...	Transfer	10394763	13 mins ago	0xa7a82dd...

Account 1

Not connected

0x106...0AbB

Copy to clipboard

0.1ETH

Buy

Send

Swap

Assets

Activity

0.1 ETH

Don't see your token?

Import tokens

Need help? Contact [MetaMask Support](#)

Token / ENS

ans

Misc

Value

Txn

0.1 Ether

0.00



[Download CSV]

Learn more about addresses

A wallet address is a publicly available address that allows its owner to receive funds from another party. To

Overview

State

From:	0xa7a82dd06901f29ab14af63faf3358ad101724a8 
To:	0x1066618d0973e44efd2fe5114fd18b64c6420abb 
Value:	0.1 Ether (\$0.00)
Transaction Fee:	0.000052500000483 Ether (\$0.00)
Gas Price:	0.000000002500000023 Ether (2.500000023 Gwei)

[Click to see More](#) 

Overview

State

Block:

10394763

45 Block Confirmation

Timestamp:

11 mins ago (Mar-26-2022 04:00)

From:

0xa7a82dd06901f29ab14af63fafc

To:

0x1066618d0973e44efd2fe5114f

Value:

0.1 Ether (\$0.00)

Transaction Fee:

0.000052500000483 Ether (\$0.00)

Gas Price:

0.000000002500000023 Ether (2)

Rinkeby Test Network

Not connected

Account 1

0x106...0Ab8

0.1ETH

Buy

Send

Swap

Assets

Activity

0.1 ETH

Don't see your token?

[Import tokens](#)

Need help? Contact [MetaMask Support](#)

Overview

State

Block:

10394763

45 Block Confirmation

Timestamp:

11 mins ago (Mar-26-2022 04:30)

From:

0xa7a82dd06901f29ab14af63faf3

To:

0x1066618d0973e44efd2fe5114f

Value:

0.1 Ether (\$0.00)

Transaction Fee:

0.000052500000483 Ether (\$0.00)

Gas Price:

0.000000002500000023 Ether (2)

Edit

Rinkeby Test Network

Account 1

Account 2

New gas experience

We've updated how gas fee estimation and customization works.

Turn on Enhanced Gas Fee UI in Settings

SENDING ETH

0.05

Estimated gas fee

0.00004648

Likely in < 30 seconds

Max fee: 0.00004648 ETH

Total

0.05004648

0.05004648 ETH

Amount + gas fee

Max amount: 0.05004648 ETH

OverviewState

Block:

10394763

45 Block Confirmation

Timestamp:

11 mins ago (Mar-26-2022 04:30)

From:

0xa7a82dd06901f29ab14af63faf3

To:

0x1066618d0973e44efd2fe5114f

Value:

0.1 Ether (\$0.00)

Transaction Fee:

0.000052500000483 Ether (\$0.00)

Gas Price:

0.000000002500000023 Ether (2)

Edit

Rinkeby Test Network

Edit gas fee

Gas option	Time	Max fee
Low	30 sec	0.00003... ETH
Market	30 sec	0.00005... ETH
Aggressive	15 sec	0.00005... ETH
Advanced	--	--

Network status

0 GWEI

2 - 3 GWEI

Busy

Want to learn more about gas?

Reject

Confirm

SHA256 Hash

Data: asdfadfadfsaf



Hash: 7f50d069ebee0ab8384fad2a3f85cc9213b37b369cc4bb0eb726de24c5f48fab

Block

Block:

1

Nonce:

72608

Data:

Hash:

0000f727854b50bb95c054b39c1fe5c92e5ebcfa4bcb5dc279f56aa96a365e5a

Mine

Block

Block: # 1

Nonce: 72608

Data: asdfasdfasdfasdfasdfasdfadfsf³adadsa

Hash: 5caf422c23e133302ee6ae2059d27f4bac7ab903578701fa9e17f06b912d22

Mine

Block

Block: # 1

Nonce: 33128

Data: asdfasdfadsfadfsadf

Hash: 0000b75b1fcd92d5a4207c86f81d9e2fdabc959ed31fea07b27538f5dde2a4c2

A blue rectangular button with the word "Mine" in white text.

Rantai Blok

Blok:	#	1
Nonce:	11316	
Data:		
Sebelumnya:	00	
Cincang:	000015783b764259d382017d91a36d206d0600e2cbb3567748f	
<button>Tambang</button>		

Blok:	# 2
Nonce:	35230
Data:	
Sebelumnya:	000015783b764259d382017d91a36d206d0600e2cbb3567748f
Cincang:	000012fa9b916eb9078f8d98a7864e697ae83ed54f5146bd844
Tambah	

Blok:	# 3
Nonce:	12937
Data:	
Sebelumnya:	000012fa9b916eb9078f8d98a7864e69
Cincang:	0000b9015ce2a08b61216ba5a0778545
<button>Tambah</button>	

Rantai Blok

[illegible]

Blok:

#2

Nonce:

35230

Data:

shely

Sebelumnya:

000015783b764259d382017d91a36d206d060e2cbb3567748f

Cincang:

39305deea1fd41abd698afe2aa8dc166ddf6f4f4842a965c41

Tambah

Blok:	# 3
Nonce:	12937
Data:	
Sebelumnya:	39305deea1fd41abd698afee2aa8dc
Cincang:	4beade654b8577b3c6407b12e42711
<button>Tambah</button>	

Demo Rantai Blok

CincangBlokRantai BlokTerdistribusiToken-tokenCoinbase

Rantai Blok Terdistribusi

Kawan A

Blok: # 1

Nonce: 11316

Data:

Sebelumnya: 00

Cincang: 000015783b764259d382017d91a36d206d0600e2cbb3567748

Tambang

Blok: # 2

Nonce: 35230

Data:

Sebelumnya: 000015783b764259d382017d91a36d206d0600e2cbb3567748

Cincang: 000012fa9b916eb9078f8d98a7864e697ae83ed54f5146bd84

Tambang

Blok: # 3

Nonce: 12937

Data:

Sebelumnya: 000012fa9b916eb9078f8d98a7864e697ae83ed54f5146bd84

Cincang: 0000b9015ce2a08b61216ba5a0778545

Tambang

Public / Private Key Pairs

Private Key

92853035924865024094188800129399842318596049436997263256614152630016656161875|



Random

Public Key

04508c991f6516fb032830fea7e9ac87761d8a6b96cfa662938f1ec4d2840cba0b8ce7fb5b8bf285bd90f156ca8f5e3bdb36c2c23348e

Signatures

[Sign](#) [Verify](#)

Message

hi world

Private Key

95988087612130388573112263330842003315027456113914937967398582037749308121358

Sign

Message Signature

3045022075c726c16fcc92c78eee3ecb4ce07ecc63829cf0562e39ac0318c547342a8113022100fe3034db369cbbcf2ab8ea14a3a29f

Signatures

[Sign](#) [Verify](#)

Message

hi world

Public Key

04033a93c65c54065907c1e04126b6c41222243a1658c81b02e886d113dc175316eb96e119cc64fd429779277b17e80daa2e40a9b1da1

Signature

3045022075c726c16fcc92c78eafa356435245436tedfggs

Verify

Transaction

Sign [Verify](#)

Message

\$ 400

From: 04033a93c65c54065907c1e04126b

->

04cc955bf8e359cc7ebbb66f4c2dc

Private Key

95988087612130388573112263330842003315027456113914937967398582037749308121358

Sign

Message Signature

30440220504f22140b6f4387fb66f7f8d589ce209b0d458c3f345328c47754bc145eb2d102202f05d5e9e3221f70e88a5a0421b61673c



OverviewState

Value:

0.05 Ether (\$0.00)

Transaction Fee:

0.000046477873281 Ether (\$0.00)

Gas Price:

0.000000002213232061 Ether (\$0.00)

Gas Limit & Usage by Txn:

21,000 | 21,000 (100%)

Gas Fees:

Base: 0.00000004 Gwei | Max: 0.00000004 Gwei

Burnt & Txn Savings Fees:

Burnt: 0.000000000000084 Ether (\$0.00)

Ether (\$0.00)

Advanced gas fee

Max base fee (GWEI)

1.500000015

= 0

Current: 0 GWEI 12hr: 0 GWEI

Priority Fee (GWEI)

1.5

= 0

Current: 1 - 2.5 GWEI 12hr: 1 - 191.21 GWEI

☐ Save these new values as my default for "Advanced"

Gas limit

2000

Gas limit must be greater than 20999 and less than 2147483647

Save

After constantly using a calculator to convert between Ether units i thought it would be a good idea to implement the [EthereumJS-Units Project](#) on a website for easy accesability. For clarity reasons there is a [simple](#) and [full](#) converter page, since the majority wouldn't bother for any other units than Ether, Gwei and Wei. This project is using the [BigNumber](#) library and the [EthereumJS-Units Project](#).

Wei

Gwei

I

Ether

Overview

State

[This is a Rinkeby **Testnet** transaction only]

? Transaction Hash: 0xfeae5a0a60dedd89dcef269d13ae8bc4abc53ed6f00abb0d6879287da654b695 

? Status: ✓ Success

Number of blocks mined since

? Block: 10395208 5 Block Confirmations

? Timestamp: ⌚ 1 min ago (Mar-26-2022 06:00:34 PM +UTC)

? From: 0x1066618d0973e44efd2fe5114fd18b64c6420abb 

? To: 0x043202024eb087bd4149fd7f8a1e4a0caa124cfd 

Overview

State



Advanced

A set of information that represents the current **state** is updated when a transaction takes place on the network. The below is a summary of those changes :

Address	Before	After	State I
0x000000000000000000...	2,402.478198678369995942 Eth	2,402.478245156242436942 Eth	▲ 0.000
0x043202024eb087bd41...	0 Eth Nonce: 0	0.05 Eth Nonce: 0	▲ 0.05
0x1066618d0973e44efd...	0.1 Eth Nonce: 0	0.049953522126719 Eth Nonce: 1	▼ 0.050