

Link it Up

Descriere

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Welcome to the "Link it Up" challenge!

Part of your journey towards creating your very own blockchain implies linking your blocks together in a data structure. What better candidate for that than a `LinkedList`?

You stumble upon an existing implementation, however you notice that something is not quite right. Find the issue(s) and fix the code!

A correct implementation will result in *all* of the blocks being displayed in the correct order. See the example output.

Download resources [here](#).

Background info

For this year we prepared a 3+1 challenge approach (3 themed challenges + 1 old friend). With all the recent hype and market fluctuation, we think it's the perfect time you understand some of the basics behind cryptocurrencies and how you could implement (a simplified) blockchain from scratch. HODL on before you jump into the challenges, a quick dive into blockchain theory might give you a better understanding of how to tackle them.

What is a blockchain? In short it's a list of records, called blocks, that are tied together using cryptography. Each block includes the cryptographic hash of the previous one, reinforcing the link with the ones before and after it. Each new hash is calculated by taking into account the data of the current block and the hash of the previous one. This means that if someone wanted to retroactively modify a transaction in a block they would have to change *ALL* of the subsequent blocks. Why is this almost impossible to do? Because the blockchain is growing at an insane speed due to the fact that any number of different users contribute and add new blocks every second, thus making it impossible for a malicious actor to catch up.

That's the simplified version, at least!

TL;DR that's how Bitcoin came into existence in 2008 and reached the insane price of ~\$65.000 at its peak.

Note

You will upload a file that contains *only* the functions that perform operations on the linked list (the modified contents of `LinkedList.c`). All of the other provided code is there to help you debug.

Ensure that there are no `#includes` in your submitted file. The checker will take care of including everything

Exemple

Exemplul 1

Intrare

Ieșire

Print chain

=====

Block data 1337

Block data 0

Block data 1

Block data 2

Block data 3

Block data 4

Block data 5

Block data 6

Block data 7

Block data 8

Block data 9

Block data 10

Block data 11

Block data 12

Block data 13

Block data 14

Block data 15

Block data 16

Block data 17

Block data 18

Block data 19