



PROJECT SPECIFICATION

Private Blockchain

Configure LevelDB to persist dataset

| CRITERIA | MEETS SPECIFICATIONS |
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| Configure simpleChain.js with levelDB to persist blockchain dataset using the level Node.js library. | SimpleChain.js includes the Node.js level library and configured to persist data within the project directory. |

Modify simpleChain.js functions to persist data with LevelDB

| CRITERIA | MEETS SPECIFICATIONS |
|---|---|
| addBlock(newBlock) function includes a method to store newBlock with LevelDB. | addBlock(newBlock) includes a method to store newBlock within LevelDB |
| Genesis block persist as the first block in the blockchain using LevelDB | Genesis block persist as the first block in the blockchain using LevelDB. Additionally, when adding a new block to the chain, code checks if a Genesis block already exists. If not, one is created before adding the a block. |

Modify validate functions

| CRITERIA | MEETS SPECIFICATIONS |
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| Modify the validateBlock() function to validate a block stored within levelDB | validateBlock() function to validate a block stored within levelDB |
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| CRITERIA | MEETS SPECIFICATIONS |
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| Modify the validateChain() function to validate blockchain stored within levelDB | validateChain() function to validate blockchain stored within levelDB |

Modify getBlock() function

| CRITERIA | MEETS SPECIFICATIONS |
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| Modify getBlock() function to retrieve a block by it's block heigh within the LevelDB chain. | getBlock() function retrieves a block by block heigh within the LevelDB chain. |

Modify getBlockHeight() function

| CRITERIA | MEETS SPECIFICATIONS |
|---|--|
| Modify getBlockHeight() function to retrieve current block height within the LevelDB chain. | getBlockHeight() function retrieves current block height within the LevelDB chain. |