

PROJECT SPECIFICATION

Private Blockchain

Configure LevelDB to persist dataset

CRITERIA	MEETS SPECIFICATIONS
Configure your application to use <code>levelDB</code> to persist blockchain dataset.	Depending on the Starter Code selected, includes the Node.js <code>level</code> library and configured to persist data within the project directory.

Modify the App functions to persist data with LevelDB

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<code>addBlock(newBlock)</code> function includes a method to store <code>newBlock</code> with LevelDB.	<code>addBlock(newBlock)</code> includes a method to store <code>newBlock</code> within LevelDB

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Genesis block persists as the first block in the blockchain using LevelDB with <code>height=0</code> .	<p>Genesis block persist as the first block in the blockchain using LevelDB.</p> <p>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.</p>

Modify "validation" functions

CRITERIA	MEETS SPECIFICATIONS
Modify the <code>validateBlock()</code> function to validate a block stored within levelDB.	<p><code>validateBlock(height)</code> function to validate a block stored within levelDB. This function should get the <code>height</code> as a parameter and then retrieve the block and validate it.</p> <p>The validation should verify that the <code>hash</code> stored in the block is the same as the hash recalculated.</p>
Modify the <code>validateChain()</code> function to validate blockchain stored within levelDB.	<p>Implement the <code>validateChain()</code> function to validate blockchain stored within levelDB.</p> <p>You should retrieve the data and validate each block, also you need to validate that the <code>hash</code> of the block is equal to the next block <code>previousBlockHash</code></p>

Modify `getBlock()` function

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CRITERIA	MEETS SPECIFICATIONS
Modify <code>getBlock(height)</code> function to retrieve a block by its block height within the LevelDB chain.	<code>getBlock(height)</code> function retrieves a block by block height within the LevelDB chain.

Modify `getBlockHeight()` function

CRITERIA	MEETS SPECIFICATIONS
Modify <code>getBlockHeight()</code> function to retrieve current block height within the LevelDB chain.	<code>getBlockHeight()</code> function retrieves current block height within the LevelDB chain.