€TRAINING

Build A Blockchain And A Cryptocurrency From Scratch

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Landmark Office Space

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Introduction

Build a blockchain and cryptocurrency. Discover the engineering ideas behind technologies like Bitcoin and Ethereum, A blockchain's operating protocol is also known as its consensus mechanism, Build a Blockchain in the object-oriented programming style, and Generate hashes for blocks in the chain.

Course Objectives

At the end of the course, participants will be able to:

- Discuss the implementation of Blockchain and cryptocurrencies.

- Understand main blockchain concepts like Proof-of-Work, mining, peer-to-peer connections, etc.

- Build their own blockchain and cryptocurrency.

- Create a NodeJS application with real-time WebSocket connections.

- Build an API with NodeJS and Express.

Targeted Audience

- Familiarity with using a code editor and the command line.

- Some JavaScript experience will help, but every line is explained. This is not a course on advanced JS, but uses JS to build the concepts. By focusing on the concepts, the JS will become clear.

- Some programming experience will definitely help. If you've never coded before, then this course will probably move too quickly.

Course Outline

Unit 1:

- Build the Blockchain Class

- Test the Blockchain

- Multiple Chain Validation

- Chain Validation

Unit 2:

- Create an API around the Blockchain.

- Create a real-time connected peer-to-peer server.

- Implement a proof-of-work algorithm.

- Sign Transactions with cryptography and digital signature.

- Create a Transaction Pool for a real-time list of incoming data.

- Include transactions in core blocks of the chain.

Unit 3:

- The Blockchain engineers of the future.

- Anyone wanting to understand how cryptocurrencies are built.

- Cryptocurrency holders, so that way they can understand the underlying system.

- Anyone who wants to build a huge project in NodeJS, and it to their repertoire.

Unit 4:

- Design your blockchain architecture. ...

- Audit your new blockchain and its code. ...

- Verify legal compliance.