



Blockchain Technology

What Is a Blockchain?

A blockchain is a distributed database or ledger that is shared among the nodes of a computer network. As a database, a blockchain stores information electronically in digital format. Blockchains are best known for their crucial role in cryptocurrency systems, such as Bitcoin, for maintaining a secure and decentralised record of transactions. The innovation with a blockchain is that it guarantees the fidelity and security of a record of data and generates trust without the need for a trusted third party.

One key difference between a typical database and a blockchain is how the data is structured. A blockchain collects information together in groups, known as blocks, that hold sets of information. Blocks have certain storage capacities and, when filled, are closed and linked to the previously filled block, forming a chain of data known as the blockchain. All new information that follows that freshly added block is compiled into a newly formed block that will then also be added to the chain once filled.

A database usually structures its data into tables, whereas a blockchain, as its name implies, structures its data into chunks (blocks) that are strung together. This data structure inherently makes an irreversible timeline of data when implemented in a decentralized nature. When a block is filled, it is set in stone and becomes a part of this timeline. Each block in the chain is given an exact timestamp when it is added to the chain.

WHAT WILL I STUDY?

What you will learn

Hardware and software requirements

Hashing and blockchain encryption

Blockchain wallets and how to manage it

Synthesize your own blockchain solutions

Gain an in-depth understanding of the specific mechanics of Bitcoin

Understand Bitcoin's real-life applications and learn how to attack and destroy Bitcoin,

Ethereum, smart contracts and Dapps, and alternatives to Bitcoin's Proof-of-Work consensus algorithm

Start Date: 19 September 2024

Duration: 19 Weeks

Attendance: Part Time

Location: Enfield Centre

Enterprise-level blockchain implementations and understand the scaling struggles of blockchain and potential solutions

The regulation of cryptocurrencies and its implications for anonymity, and what blockchain means for the future

WHAT WILL I NEED?

All applicants must have an initial assessment and interview to confirm that the course is suitable for them.

HOW WILL I BE ASSESSED?

Assessment and practical activities to test knowledge

WHAT CAN I DO AFTER?

Progression to employment

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