



# 101 Blockchains

## BLOCKCHAIN WITH IOT TOP BLOCKCHAIN IOT USE CASES

[101blockchains.com](http://101blockchains.com)

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# What is Blockchain Technology?



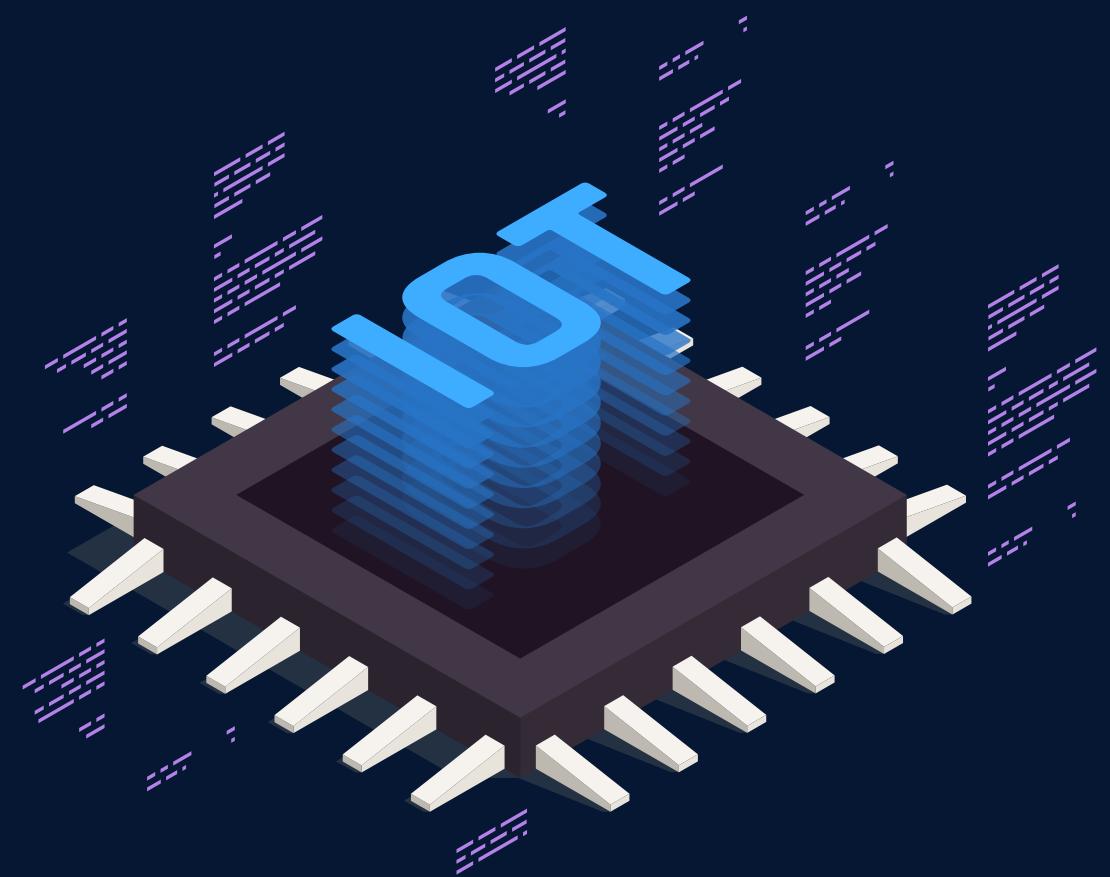
Blockchain is a distributed ledger system that eliminates the need for any centralized authority and offers security and privacy.

In Blockchain IoT systems, the IoT devices use blockchain technology as the backend networking system for storing their information.



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# What is the Internet of Things (IoT)?



Internet of Things is a system of interconnected everyday computing objects and devices via the internet.

This enables the devices to send and receive data and communicate with one another.



# Blockchain and IoT: Benefits

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- High Data Security
- Stronger Data Validation Process
- Better Quality Control in IoT Manufacturing
- Firewall Against DDoS Attacks
- Secure Communication Gateway
- Real-Time Tracking
- Encryption for Multifactor Authorization
- More Access Control
- Better Compliance Management
- Data Anonymity for Extra Privacy
- Stronger Cloud Management
- End-To-End Visibility
- Better Automation Process
- Identity for IoT Devices



# Benefits of Blockchain IoT

- **High Data Security:** Offers a full-proof secured network for IoT devices to communicate with one another. Can verify every single piece of information before storing it into the ledger using consensus methods to make data entry fairer.
- **Stronger Data Validation Process:** Blockchain audits all the data from IoT devices and checks whether the data is valid or not.
- **Data Anonymity for Extra Privacy:** Blockchain offers full anonymity to protect the user's confidential information derived from IoT devices.



# Benefits of Blockchain IoT

- **Firewall Against DDoS Attacks:** Blockchain and IoT systems can detect spam traffic and increase and decrease the necessary bandwidth needed to deal with DDoS attacks.
- **End-To-End Visibility:** It's capable of offering full-time end-to-end visibility and provides private channels between two parties.
- **Real-Time Tracking:** Can offer the correct location of any goods without any interference, which gets rid of counterfeiting.



# Benefits of Blockchain IoT

- **Identity for IoT Devices:** It helps to check the authenticity of every IoT device by attaching a unique identity to each device during the manufacturing process.
- **More Access Control:** Blockchain-powered IoT devices can offer smart lock systems to restrict unwanted participants.
- **Better Compliance Management:** Can foresee whether compliance are being met or not.



# Benefits of Blockchain IoT

- **Better Quality Control in IoT Manufacturing:** Blockchain can increase the efficiency of IoT manufacturing by controlling the quality of the finished products.
- **Stronger Cloud Management:** Blockchain can help to encrypt all IoT data before sending it to the cloud storage.
- **Secure Communication Gateway:** Blockchain can introduce a private communication channel that's gets rid of a single point of failure.



# Benefits of Blockchain IoT

- **Better Automation Process:** Blockchain coupled with IoT can oversee the automation process that includes data analysis and prompt actions.
- **Encryption for Multi-factor Authorization:** With the help of Blockchain IoT, organizations can offer biometric-based multi-factor passwords or authorization methods.
- **Collaborative Environment for Shared Economy:** Blockchain can offer a secured hub for all the shared economy industries and use IoT devices to oversee the business processes.



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# Top Blockchain IoT Use Cases



Supply Chain Management



Smart Homes



Pharmacy



Automotive Sector



Agriculture



Sharing Economy



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# Supply Chain Management

- Can introduce IoT integrated vehicles that can track the shipments until the delivery.
- Using IoT based sensors can help companies to get crucial information about the shipment status, such as the temperature, motion, pressure, etc.
- The overall traceability and reliability of the network can improve significantly if blockchain and IoT are used together.



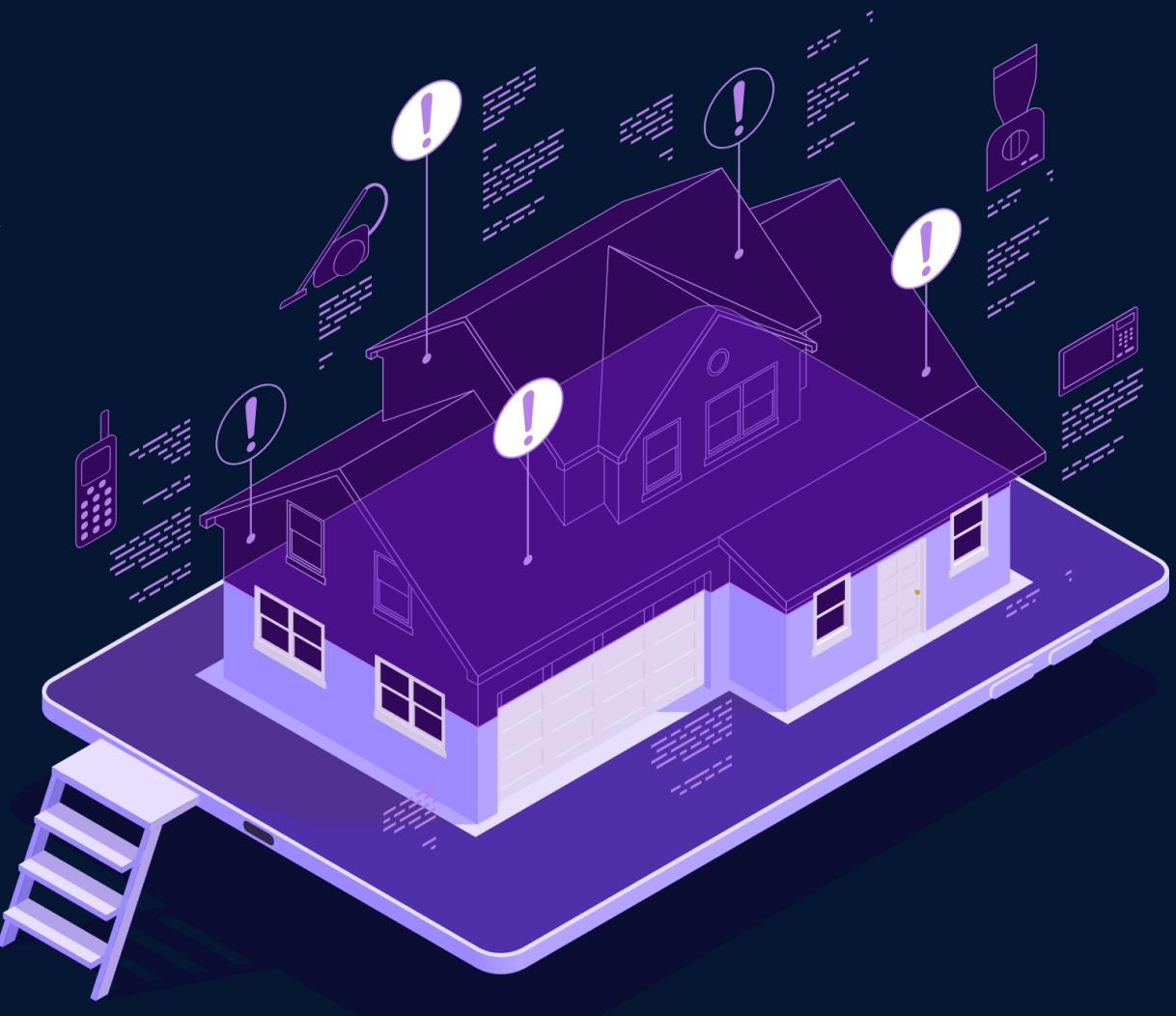
# Supply Chain Management

- Once the data gets added to the ledger, the stakeholders can use smart contracts to get access to them in real-time.
- Companies can automate all transactions across borders and different shipments.
- It can track the entire process of the supply chain and increase the overall efficiency and quality of the manufacturing process.



# Smart Homes

- Using IoT Blockchain, smart homes can get more security when it uses smartphones to manage the devices.
- Blockchain eliminates the need for conventional centralized information storing approach in IoT devices.
- Blockchain smart home solutions can securely store user sensitive data such as Face ID, Fingerprints, Voice ID, etc.



# Pharmacy

- Blockchain with IoT devices can help track the pharmaceutical drugs from the manufacturing to the end-user, eliminating counterfeit drug issues.
- Applications can track any legal changes in the ownership of the prescription to avoid any false or forged prescription issues.
- It helps users to gain access and control over their data and make the payment process much simpler.





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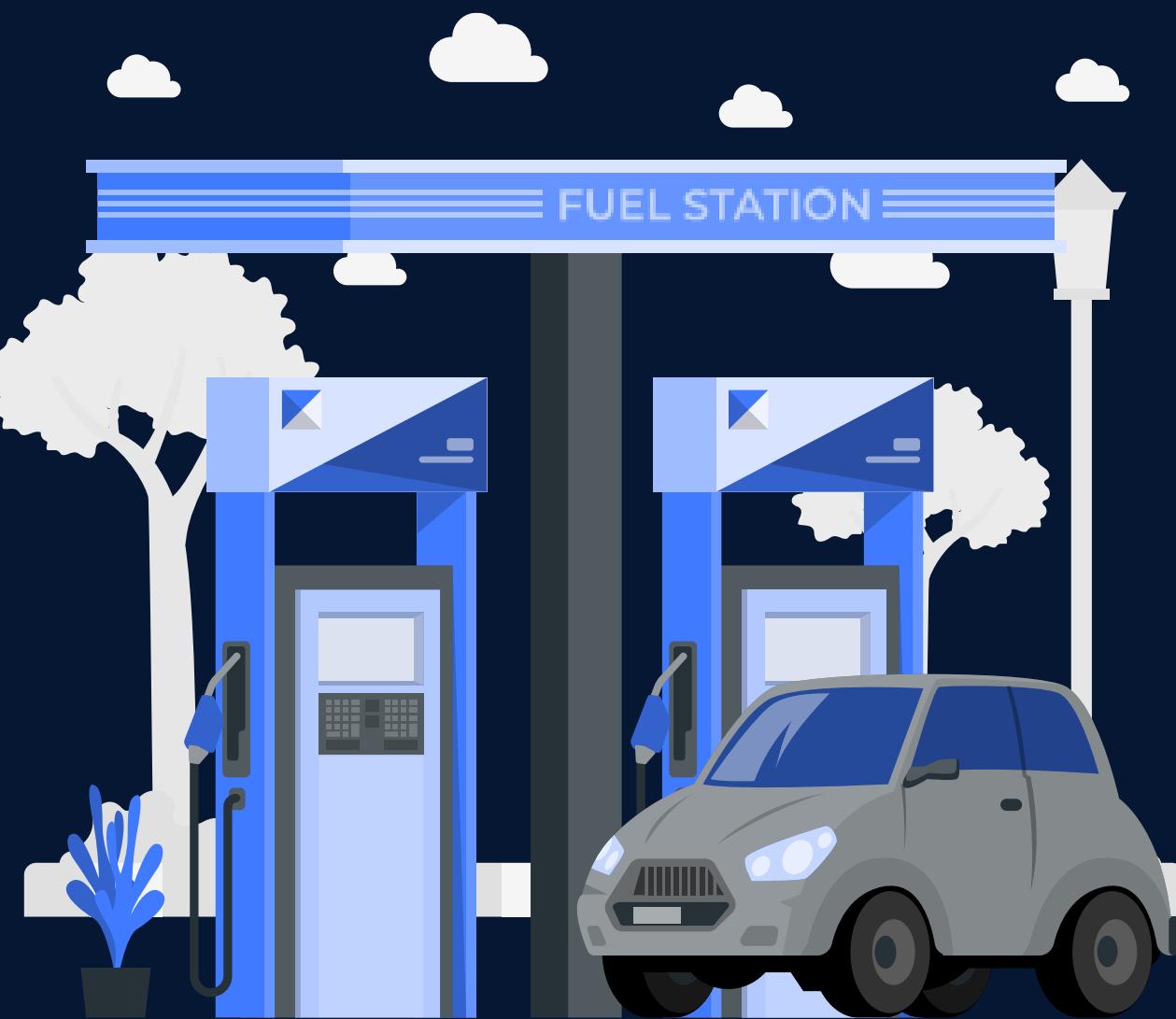
# Automotive Sector

- Helps users to access crucial information in a master and easier way; also, the information remains protected from outside forces.
- Using blockchain with IoT helps to develop smart parking solutions that help users to discover parking spots nearby.
- Using the IoT sensors, blockchain automates traffic controls judging by the amount of traffic present at any given moment.



# Automotive Sector

- Blockchain IoT can automate any type of fuel payment once certain conditions are met.
- It can also help to develop and manage autonomous cars and help to analyze the data derived from the tests.
- It can facilitate crypto payments using smart contracts when the vehicle is repaired.



# Agriculture

- Blockchain IoT can track the weather impact and other external factors to increase the quality of the crops.
- It helps to grow more food for the population and helps to keep carbon footprint minimal.
- Helps to increase customer trust by improving the transparency level throughout the industry.



# Agriculture

- It enables real-time traceability of various food products from the farms to the stores.
- Installing IoT in farms and managing it using blockchain can improve the supply chain output of agricultural industries.
- Offers farmers the option to pre-sale their produces using smart contracts and get paid in advance.



# Sharing Economy

- Blockchain can help develop a new shared economy with decentralized applications.
- Decentralized applications within the ecosystem can help to increase the revenue by seamless sharing of services and goods.
- Smart contracts can increase data transparency along with privacy by controlling access to information.



# Water Management

- It can help to manage water by tracking how much water is being used and can automate shutdown in terms of any leakage.
- It can use blockchain IoT to monitor, store data and use that data to increase efficiency.
- Can combine the technologies to collect data from water to determine whether the water is contaminated or not.



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# Professional Course On IoT

## IoT Fundamentals Course

<https://academy.101blockchains.com/courses/iot-fundamentals>



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# 101 Blockchains Certifications



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Certified Blockchain  
Security Expert

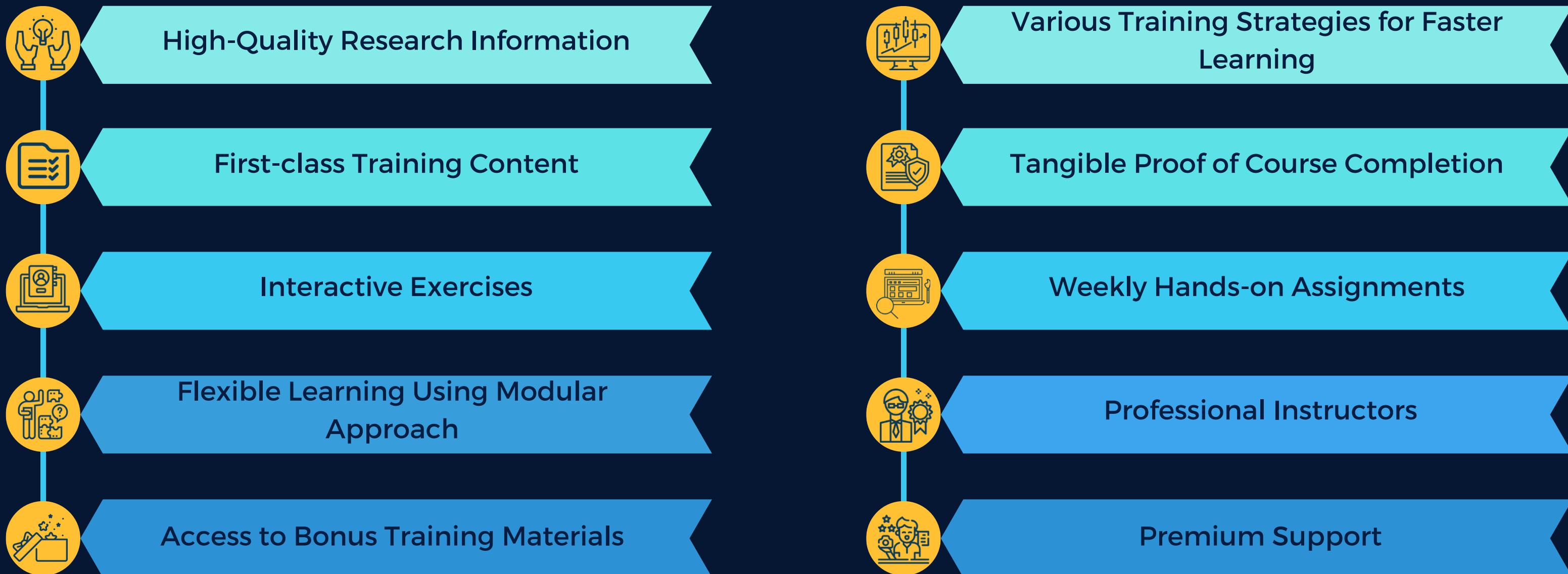
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[Blockchain Webinars](#)

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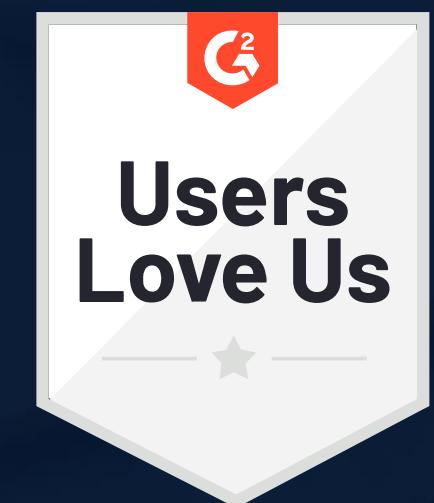




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