EC-Council Blockchain Developer (B|DC) + Exam voucher

Duration: 5 Days **Course Code: EBDC**

Overview:

This EC-Council Blockchain Developer course (B|DC) aims to provide developers with a comprehensive understanding of blockchain technology, including its impact and applications in business and finance. Students will learn about cryptography, cryptomining, quantum computing, blockchain project implementation, Ethereum, and more.

Target Audience:

Software engineersProgrammersProject managersNetwork administrators, and other technical professionals interested in integrating blockchain applications and architectures into their organization.

Objectives:

- The structure and elements of a blockchain network, including how decentralization works
- Hashing and consensus algorithms and their role in blockchain networks, including proof-of-work (PoW) and proof-of-stake (PoS) consensus mechanisms
- The benefits of using blockchain technology and how to determine whether blockchain is the right solution for your business
- Blockchain scalability issues and how to resolve them
- Digital currencies, including different types of cryptocurrency assets, the tokenization process, and how leading cryptocurrencies (e.g., Bitcoin, Altcoin, Litecoin, Zcash) work
- The structure and components of the Bitcoin network and how it works
- Bitcoin's limitations, variants, and clients
- Bitcoin cryptomining and its relation to PoW consensus mechanisms
- The processes and tools used in cryptomining, including cryptomining algorithms like Equihash and CryptoNight
- Blockchain development in Python, JavaScript, and Java
- The elements of the Ethereum ecosystem
- How to work with Solidity and Ethereum, including how to use Solidity IDEs like Remix and EthFiddle and create private blockchain networks using Ethereum
- How to build secure smart contracts with Ethereum and Solidity, including vulnerabilities in smart contracts and how to mitigate them
- Formal verification of smart contracts
- Permissioned and permissionless blockchains
- How to work with the Hyperledger Fabric framework
- Deep dive into blockchain projects (including Fabric, Iroha, Burrow, and Indy)
- Privacy and confidentiality in blockchains
- Decentralized autonomous organizations (DAOs)
- How to design blockchain-based identity solutions
- Machine learning and blockchain technology
- Intelligent smart contracts and the convergence of blockchain and AI
- The basics of the IoT, how to achieve convergence between IoT and blockchain, and the Blockchain of Things
- How blockchain is used in healthcare, fintech, and supply chain contexts
- Blockchain as a Service
- The fundamentals of quantum computing and how quantum computing will affect blockchain networks
- The future of blockchain technology and open research issues

Prerequisites:

Candidates must have:

- General awareness of business management processes
- Basic knowledge of computers
- Access to a Linux machine that can be configured as a virtual machine

Content:

Module 1: Introduction to Blockchain Technology

Module 2: Cryptography and Technology Details

Module 3: Impact on the Financial Sector

Module 4: Bitcoin

Module 5: Blockchain Project Implementation

Module 6: Security in Blockchain

Module 7: Cryptomining

Module 8: Ethereum

Module 9: Other Cryptocurrencies

Module 10: AI and Blockchain

Module 11: Blockchain as a Service

Module 12: Open-Source Business Blockchain Frameworks

Module 13: Python for Blockchain

Module 14: JavaScript for Blockchain

Module 15: Java for Blockchain

Module 16: Blockchain Online IDE

Module 17: Industry Use Cases

Module 18: IoT and Blockchain

Module 19: Decentralized Applications (dApps)

Module 20: Future of Blockchain

Module 21: Quantum Computing and Blockchain

Labs and Projects

Exploring blockchain through the Bitcoin command-line interface (bitcoin-cli)

Setting up a private net and cryptomining

Installing Namecoin Client and creating a Namecoin record

Remix IDE deployment and testing

Using Solidity, Truffle, and Ganache to create a new coin

Notarizing and hashing documents with proof of idea

Alternative blockchain smart contract deployment

Finding a bug in a Solidity program

Using Python, Java, and JavaScript for blockchain development

Running Ganache with Metamask

Building a simple productivity app with blockchain

Additional Information:

Key USPs of the Blockchain Developer Certification The BDC program includes over 13 projects on blockchain applications to equip students with practical experience.The program focuses on the future of blockchain and how it interacts with other emerging technologies like AI, machine learning, and IoT.The curriculum delves deep into multiple blockchain frameworks. The course is replete with assignments and alternative testing methods to keep students engaged in topics beyond the program. The BDC is authored and endorsed by bestselling authors and subject matter experts in the blockchain field. The course offers practical advice on how and when to use blockchain in any industry

Further Information:

For More information, or to book your course, please call us on 00 20 (0) 2 2269 1982 or 16142

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