

# € TRAINING

Blockchain Fundamentals and Applications





# Blockchain Fundamentals and Applications

## Introduction:

This program is designed to prepare participants for the certification exam only.

This training program provides in-depth education on blockchain technology, covering its fundamentals, applications, and solution development. Through it, participants will be prepared for the CBP in Blockchain certification exam confirming their proficiency in this innovative domain.

## Program Objectives:

At the end of this program, the participants will be able to:

- Recognize how public and permissioned blockchains operate.
- Identify and evaluate the viability of blockchain use cases
- Pick the top blockchain platforms and service providers depending on the use case
- Consider the effects of blockchain on business and regulation.
- Create blockchain solutions and define deployment methods.
- Prepare for the certification exam.

## Targeted Audience:

- Professionals interested in deepening their understanding of blockchain technology.
- Analysts, managers, and C-level executives.
- Developers seeking to enhance their skills in blockchain solution development.
- Entrepreneurs exploring the potential applications of blockchain in their business ventures.

## Program Outline:

### Unit 1:

#### Blockchain fundamentals:

- Basics of blockchain technology, including distributed storage and encryption principles e.g., hashing, key pairs, digital signatures.

- Understanding the usage of blockchains and the differences between private and public blockchains.
- Exploration of blockchain regulations and a deeper dive into specific cryptocurrencies like Bitcoin or Ethereum.
- Overview of block arrangement, consensus-based techniques, and the role of exchanges and wallets.
- Examination of the three types of blockchain applications storing data, value exchange, smart-contracting with real-world examples across industries.
- Addressing the challenges and difficulties in implementing blockchains effectively in various applications.

## Unit 2:

### Detailed examination of tokens and their application in ICOs, Dapps, smart contracts, and DAOs:

- Types and uses of tokens.
- Rights and utility.
- Token worth.
- Distribution of values.
- Demand and inflation.

## Unit 3:

### Permissioned blockchains:

- Specialized layer for handling data management and identity governance.
- Prevailing models of token echelon and establishment of consortiums.
- The goal of tokens within permissioned blockchain incentive schemes.
- Procedures for deciding decisions and management of identities in blockchain ecosystems.
- Governance structure and systems for off-chain governance.

## Unit 4:

### Use-cases from different industries, together with their effects on business:

- Financial assistance.
- Insurance.



- pharmacology and healthcare.
- Community services and Energy.
- Advertising and the media.
- World Wide Web of Things.

Unit 5:

#### Business strategies and governing factors:

- An appropriate blockchain use case.
- Control of tokens and potential tax implications.
- GDPR compliance considerations.

#### Platforms and service providers for blockchain technology:

- Business-relevant blockchain platforms.
- Software companies offering "blockchain as a service," such as IBM Hyperledger.
- Cloud providers like Google Azure, Amazon AWS, and Consensus Kaleido.
- Preparation for the certification exam.

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