Certified Blockchain HyperLedger Developer

GSDC
Global Skill Development Council

CBHD

CERTIFIED

GSDC's Certified Blockchain HyperLedger Developer (CBHD) validates participant's knowledge on building and deploying Hyperledger single and multi-networks, and query the network.

www.gsdcouncil.org
admin@gsdcouncil.org

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ABOUT CERTIFICATION

Ethereum Developer Certification provides you with the underlying concepts of the Blockchain technology and complete understanding of Ethereum.

The Hyperledger Foundation is an industry association tasked with developing enterprise managed blockchain solutions. Unlike protocols like Bitcoin or Ethereum, Hyperledger projects are designed for traditional businesses that are trying to improve internal data integrity, collaboration and to bring IT to cost down in the long run.

The first project to emerge from the Foundation is Hyperledger Fabric. It is a managed blockchain protocol that brings decentralization and cryptographic improvements to the systems that power businesses, large and small.

OBJECTIVES

A person who holds this certification demonstrates their ability to:

1. Understand where Blockchain is needed and why
2. Explore the major components of Blockchain
3. Learn about Hyperledger Fabric v1.1 and the structure of the Hyperledger Architecture
4. Learn the features of the Fabric model including chaincode, SDKs, Ledger, Security and Membership Services
5. Perform comprehensive labs on writing chaincode
6. Explore the architecture of Hyperledger Fabric v1.1
7. Understand and perform in-depth labs on Bootstrapping the Network
8. Gain a detailed understanding of the benefits, components, and architecture of Hyperledger Composer
9. Learn Hyperledger Explorer and Hyperledger Composer Playground
10. Integrate/develop an application with the help of comprehensive labs
11. Run a smart contract using Hyperledger Fabric
12. Build applications on Hyperledger Fabric v1.1

Our Accreditation:

COURSE SYLLABUS

1.Introduction To Blockchain:
- Introduction to Blockchain
- What is Blockchain
- Types of network
- Public network
- Permissioned network
- Private network
- Need for Blockchain Components of Blockchain
- Consensus
- Provenance
- Immutability
- Finality
- Where can Blockchain be used
- Example on Blockchain

2.How Blockchain Works:
- How Blockchain Works
- Structure of Blockchain
- Block
- Hash
- Blockchain
- Distributed
- Lifecycle of Blockchain
- Smart Contract
- Consensus Algorithm
- Proof of Work
- Proof of Stake
- Practical Byzantine
- Fault Tolerance
- Actors of Blockchain
- Blockchain developer
- Blockchain operator
- Blockchain regulator
- Blockchain user
- Membership service provider
- Building A Small Blockchain Application

3.Introduction To Hyperledger Fabric V1.1:
- Introduction to Hyperledger
- What is Hyperledger
- Why Hyperledger
- Where can Hyperledger be used
- Hyperledger Architecture
- Membership
- Blockchain

- Transaction
- Chaincode
- Hyperledger Fabric
- Features of Hyperledger
- Fabric Installation of pre-requisite
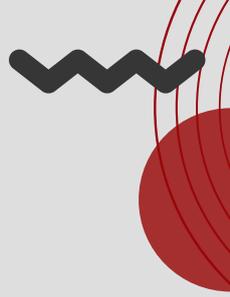
4.Getting Started With Fabric Model:
- The Fabric Model
- Features of Fabric Model
- Chaincode
- SDKs
- Ledger
- Privacy through channels
- Security and Membership services
- Assets
- Consensus
- Components of Fabric Model
- Peer
- Orderer
- Certificate Authority
- Building your network

5.Chaincode:
- Chaincode
- Chaincode API
- How to write a Chaincode
- Lab Work

6.Architecture Of Hyperledger Fabric V1.1:
- Architecture of Hyperledger Fabric
- Transaction
- Ledger
- Nodes
- Peer
- Endorser
- Ordering Nodes
- Channels
- Certificate Authority
- Transaction Flow
- Lab Work

7.Bootstrappping:

- Bootstrapping the Network
- Introduction
- Lab Work
- Task 1 Generate the crypto material for the various participants.
- Task 2 Generate the genesis block for the Orderer node and start ordering service (solo node).
- Task 3 Generated the configuration transaction block to create a new channel.
- Task 4 Sign the configuration block and create the new channel.
- Task 5 Make peers of all the organizations join the channel that we created in Task 4

8.Introduction To Hyperledger Explorer:

- IIntroduction To Hyperledger Explorer
- Block Details Peer List
- Chaincode List
- Transaction Details
- Installation of Hyperledger Explorer
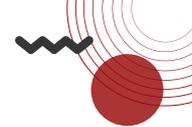- Starting the Explorer App

9.Introduction To Hyperledger Composer:

- Introduction
- Components of Hyperledger Composer
- Benefits of Hyperledger Composer
- Key Concepts
- Hyperledger Composer Solution
- Installation

10.Hyperledger Composer Playground:

- Hyperledger Composer Playground
- Introduction
- Playground Over

GSDC Technical Advisory Board :

The GSDC is the leading certification association which brings together innovative organizations and founding thought-leaders as Technical Advisors from over 40 countries to design curriculum on Blockchain, Devops, Six Sigma & Agile Certifications.

Our Future Information

Target Audience

- Programmers
- Developers
- Software Engineers
- Application Architects
- Cryptocurrency Enthusiasts
- Blockchain Engineers
- Anyone who uses Ethereum in their daily lives

Pre-requisites

IJS Certification or Object-oriented programming experience, i.e JS.

Find out more online at
www.gsdcouncil.org