



# Introduction to Certified Quorum Developer

# Certified Quorum Developer™



- This certification training is a comprehensive, in-depth journey into Quorum. Quorum projects are designed for traditional businesses that are trying to improve internal data integrity, collaboration, and bring about cost-effective solutions within their organizations. It is an advanced online certification training designed for individuals to gather architectural knowledge on Quorum.

# Objectives

- An understanding of Quorum.
- An understanding of the Quorum open source project.
- Exploring the Quorum ecosystem.
- Designing and running Quorum DApps.
- Running a transaction.



# For Whom

- Investment Bankers, Consultants, & Advisors.
- University Professors.
- Engineering & Management Students.
- Programmers & Developers.
- Software Engineers & Architects.
- Application Architects.
- Cryptocurrency Enthusiasts.
- Operations Heads of Businesses.
- Senior Government Officials.
- Security Professionals, Administrators.



# Benefits of taking this Course



- Prove your Quorum functional skills & understanding.
- Gain an in-depth understanding of Quorum and its Ecosystem.

# Requirements to take this Certification



- Basic knowledge of Computer Science.
- Awareness of Cryptocurrencies like Bitcoin, Ethereum etc.
- Basic knowledge of any programming language.

# Recommended Experience



- There is no such recommended experience required for getting this certification.

# Duration for the Course



- A total of 4-5 Hours of training.
- 1 hour for exam.
- Training will be online (self-paced).
- Training can be consumed as per the candidate's availability & online speed.



# Exam



- There will be an online multiple choice exam of 100 marks followed by the training.
- You need to acquire 60+ marks to clear the exam.
- If you fail the exam, you can retake the exam after 1 day.
- You can take the exam at the maximum of 3 times.
- If you fail to acquire 60+ marks even after 3 attempts, you would need to contact the Blockchain Council team to have manual assistance for clearing the exam.

# Course Content



- **Introduction to Blockchain**
  - What is Blockchain?
- **Introduction to Ethereum**
  - What is Ethereum?
  - What is Ethereum Virtual Machine?
  - What is Solidity?
  - What are Smart Contracts?
- **Introduction to Quorum**
  - What is Quorum?
  - Features of Quorum
  - Advantages and Disadvantages of Quorum
  - Comparison of Quorum with other blockchain technologies

# Course Content



- **Quorum Ecosystem**
  - Data Structure
  - Quorum Architecture
  - Quorum Key Components
- **Quorum Network**
  - What is Quorum Network?
- **Quorum Transaction Processing and Privacy**
  - What is Quorum Transaction?
  - Quorum Private Transaction
  - Quorum Public Transaction
- **Quorum Contracts**
  - Quorum Public Contract
  - Quorum Private Contract

# Course Content



- **Quorum Consensus**
  - Overview to Consensus
  - RAFT- Based Consensus
  - Istanbul BFT Consensus
  - Clique POA Consensus
- **ZSL: Zero-knowledge Security Layer**
  - What is zk-SNARKS?
  - What is ZSL?
  - Components of ZSL
  - ZSL Example
- **Requirement for Quorum**
  - Repositories
  - Tools
  - Libraries
  - Languages

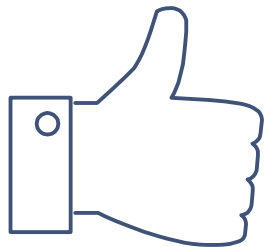
# Course Content



- **Setting up the Quorum Environment**
  - Installation Guideline for Quorum
  - Building Quorum Node from Source
  - Installing Constellation
  - Installing Tesseract
- **7nodes Quorum Dapp**
  - Setting up your Quorum Client Environment
    - Installing Virtualbox
    - Installing Vagrant
    - Installing Git
  - Connecting Truffle to Quorum
  - Deploying smart contracts
  - Make transactions private
  - Interacting with contracts privately
  - Reducing Nodes

# Certificate





# THANK YOU!

**Any questions?**

You can mail us at  
[hello@blockchain-council.org](mailto:hello@blockchain-council.org)