Blockchain is an emerging technology pattern that can radically improve banking, supply-chain, and other transaction networks, creating new opportunities for innovation. Blockchain technology offers exciting possibilities to radically improve transactions networks, enabling innovations for asset transfer while reducing the cost and risk. Blockchain technology provides the basis for a dynamic shared ledger that can be applied to save time when recording transactions between parties, remove costs associated with intermediaries, and reduce risks of fraud and tampering. All industries can benefit from this technology, from manufacturing to finance and intellectual property.

Blockchain is a technology for a new generation of transactional applications that establishes trust, accountability and transparency, while streamlining business processes. The blockchain network was first introduced by bitcoin, but its practical uses extend far beyond cryptocurrency exchanges.

This 3.0-day course teaches you what blockchain is and why it is important. You will learn the fundamentals of blockchain and how this technology will revolutionize transactions and business networks.

In this course, you learn about the key architectural components that are specific to the Hyperledger Fabric project and how they interact to provide a foundation for a business blockchain network.

The hands-on labs in this course show you how to deploy an Hyperledger network Fabric, how to create a working chaincode, deploy it to a blockchain network running on linux on z Systems (or Linuxone), and run some simple tests with it.

**Skills Gained**

After completing this course, you should be able to:

- Understanding what blockchain is and why it is important.
- Learn the fundamentals of blockchain and how this technology will revolutionize transactions and business networks.
- Discover the important difference between blockchain and blockchain for business and what makes blockchain an ideal solution for streamlining business networks.
- Understand how blockchain technology can solve business problem and how this technology adds value.
- Understand what blockchain is, how it works, and how it can enhance your business and the industry in which it operates.
Who Can Benefit

This course is designed for Developers and system programmers who are interested in blockchain technology but have little to no experience with blockchain and chaincode.

It is also for developers to quickly understand blockchain technology and to give hands-on experience with sample use cases.

This course is intended for IT professionals who will be responsible for the support of Blockchain on Linux on z or Linux one platform.

Prerequisites

It assumes that the student will have some experience in the Linux environment.

Course Details

Course Outline

After completing this course, you should be able to:

- Understanding what blockchain is and why it is important.
- Learn the fundamentals of blockchain and how this technology will revolutionize transactions and business networks.
- Discover the important difference between blockchain and blockchain for business and what makes blockchain an ideal solution for streamlining business networks.
- Understand how blockchain technology can solve business problem and how this technology adds value.
- Understand what blockchain is, how it works, and how it can enhance your business and the industry in which it operates.
- Apply blockchain to a business network.
- Explore blockchain and the Hyperledger Fabric Project.
- Understand the Linux Foundation Hyperledger and IBM's value proposition.
- Discover the Hyperledger project—an open-source collaboration working to advance the development of cross-industry blockchain technologies.
- Learn about the Hyperledger Fabric and the instrumental role it plays in developing a blockchain for business.
- Implement and setup a blockchain network
- Build your first chaincode and develop smart contracts (chaincode)
- Create your own private blockchain network and add code for Smart Contracts using the chaincode interface from the Hyperledger Project's Fabric.
- Learn the basics of developing applications with chaincode.