



BLOCKCHAIN FOR BUSINESS

The complete certification oriented 2 days workshop to learn and implement Blockchain for enterprise use cases

DATES

13 & 14 JULY 2019

VENUE

TBD (Bangalore)

REGISTRATION

<https://www.townscript.com/e/blockchain-for-business-042141>

Organised By

Bangalore Chamber of Industry and Commerce (<https://bcic.in>)

in association with

Core Blockchain (<https://coreblockchain.com>)



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WHO SHOULD ATTEND

This workshop is designed for CXO's, VPs, Directors, Senior Management, Middle Management, Project Managers, Business Analysts, Technical Architects and others who are interested in understanding Blockchain technology, its impact in the enterprise, Blockchain use cases in different industry verticals, learn to analyse if a use case requires Blockchain, and learn the process of implementing a Blockchain based solution.

TEACHING METHODOLOGY

The workshop is conducted using presentations, discussions, videos, demos and hands-on labs. It is highly recommended that each participant carry a laptop with Wifi dongle (or phone hotspot) to make the best use of demos and labs in the workshop.

DURATION

2 days, 9AM to 6PM

PARTICIPANTS EQUIPMENT AND SOFTWARE

1. Laptop with Windows 7, 8, 10 OR MacOS
2. Internet Connectivity
3. Chrome Browser

CERTIFICATION EXAM (OPTIONAL)

All participants in this workshop receive a *participation certificate* without requiring to attend an exam. However, to receive a *course certificate*, participants are required to take an online exam at the end of the course.

Participation certificates and badges are issued to all the participants immediately after the course.

The *course certificate* exam is conducted at the end of the course on day 2. The certificates and badges are issued to passing candidates within 7 working days after the exam.



WORKSHOP OVERVIEW

Learn Blockchain technology in depth and how it is changing the world around us. In this 2-day hands-on workshop, you will learn about Blockchain and the problems it solves. You will explore smart contract development and how it simplifies processes, brings transparency and addresses the problem of trust that exists today. You will understand Blockchain use cases for multiple industry verticals through use case analysis, demos and interaction with smart contracts.

You will learn to use a decision-making process for choosing a Blockchain platform for specific enterprise use cases, and understand the advantages and trade-offs of using Blockchain compared to traditional technology.

Finally, you will learn (at a high level), how to run a design sprint to implement a Blockchain based solution in your organisation.

BUSINESS OUTCOMES

B01	Identify use cases where a Blockchain can be used
B02	Select the right consensus mechanism for different types of Blockchain implementations and platforms
B03	Identify business processes that benefit from smart contracts
B04	Use a decision making framework to filter use cases that are a good fit for Blockchain technology
B05	Identify the right Blockchain platform to use for a specific use case

LEARNING OBJECTIVES

Learning objectives (LOs) are brief statements that describe what you are expected to know after each chapter. The LOs are defined as follows:

- K1: Remember
- K2: Understand
- K3: Apply



The LOs for the CBFBP certification course are:

LO1	Explain what a Blockchain is and how it works under the hood. (K1)
LO2	Understand the different types of Blockchain platforms and which ones to use for specific use cases. (K2)
LO3	Select the right consensus mechanism for different types of Blockchain implementations and platforms (K3)
LO4	Understand how Blockchain wallets work (K2)
LO5	Use Blockchain wallets to interact with a Blockchain network (K3)
LO6	Explain what is a smart contract (K1)
LO7	Explain the reasons to use a smart contract (K1)
LO8	Understand the use cases where smart contracts are used in the enterprise (K2)
LO9	Deploy and work with smart contracts (K3)
LO10	Understand how smart contracts integrate with end user facing web applications (K2)
LO11	Understand how smart contracts enable the creation of smart assets
LO12	Demonstrate the use of a smart contract enabled smart asset (K3)
LO13	Understand the present business problems in various industry verticals that can be solved with Blockchain (K1)
LO14	Understand the advantages and trade-offs in using Blockchain to solve problems (K1)
LO15	Demonstrate the use of Blockchain for specific use cases (K3)
LO16	Understand how Blockchain compares with a traditional database (K1)
LO17	Understand and explain the advantages of Blockchain (K1)
LO18	Understand the trade-offs when using a Blockchain (K1)
LO19	Explain the differences between popular Blockchain platforms (K2)
LO20	Understand the techniques involved in testing Blockchain applications (K1)
LO21	Understand the role of Blockchain when used with other technologies like Artificial Intelligence (AI) and Internet of Things (IoT) (K1)
LO22	Explain the economic and incentive models used by popular Blockchain platforms (K2)



LO23	Understand the current state of regulations for Blockchain and Cryptocurrencies (K1)
LO24	Understand the future of Blockchain technology (K1)
LO25	Apply a decision making framework to evaluate whether Blockchain is a good fit for a specific use case (K3)
LO26	Understand how Blockchain can be integrated with existing enterprise applications (K1)
LO27	Explain the various skills required by business analysts, technical architects and developers to work on Blockchain applications (K1)
LO28	Understand how to use the design sprint technique to quickly build a Blockchain Proof of Concept (PoC) (K1)
LO29	Understand the different components that make up a design sprint (K1)
LO30	Understand the different stages in a design sprint (K1)
LO31	Understand the outcome of a design sprint (K1)

CHAPTER 1 - INTRODUCTION TO BLOCKCHAIN TECHNOLOGY

LO1	Explain what a Blockchain is and how it works under the hoods. (K1)
LO2	Understand the different types of Blockchain platforms and which ones to use for specific use cases. (K2)
LO3	Select the right consensus mechanism for different types of Blockchain implementations and platforms (K3)
LO4	Understand how Blockchain wallets work (K2)
LO5	Use Blockchain wallets to interact with a Blockchain network (K3)



FUNDAMENTALS OF BLOCKCHAIN AND DISTRIBUTED LEDGER TECHNOLOGY

- What is a distributed ledger
- What problems are we trying to solve with a Blockchain
- Blockchain Demo (the best visual guide to understand how a Blockchain works)
- Consensus Models
- Types of Consensus Models
- Why do we need different consensus models
- Types of Blockchain Platforms

INTERACTING WITH A BLOCKCHAIN

- Understanding Blockchain Wallets
- Hands On Demo: Creating a wallet
- Hands On Demo: Transacting with your wallet

CHAPTER 2 - UNDERSTANDING AND USING SMART CONTRACTS

LO6	Explain what is a smart contract (K1)
LO7	Explain the reasons to use a smart contract (K1)
LO8	Understand the use cases where smart contracts are used in the enterprise (K2)
LO9	Deploy and work with smart contracts (K3)
LO10	Understand how smart contracts integrate with end user facing web applications (K2)
LO11	Understand how smart contracts enable the creation of smart assets
LO12	Demonstrate the use of a smart contract enabled smart asset (K3)



SMART CONTRACT BASICS

- What are smart contracts
- Why and when do we need smart contracts
- Smart contract use cases in the enterprise
- How do smart contracts work, exactly?
- Demo: Designing and implementing a simple smart contract
- Demo: Interacting with a smart contract
- Demo: Implementing a user interface to interact with smart contracts

SMART ASSETS

- What are smart assets
- How do smart assets work
- Demo: Creating a smart asset
- Demo: Using a smart asset

CHAPTER 3 - USE CASE ANALYSIS AND DEMOS

LO13	Understand the present business problems in various industry verticals that can be solved with Blockchain (K1)
LO14	Understand the advantages and trade-offs in using Blockchain to solve problems (K1)
LO15	Demonstrate the use of Blockchain for specific use cases (K3)

For each use case below, we will explore the problem statement, possible solutions, why Blockchain is used, and what is the expected outcome & trade-off of implementing Blockchain. For some of the use cases, we will have hands-on exercises where you can interact with proof of concept solutions.

Use Case: **Blockchain for Digital Identity**

Use Case: **Blockchain in Banking**

Use Case: **Blockchain for Supply Chain**

Use Case: **Blockchain for Escrow Services**

Use Case: **Blockchain for Governments - Voting**



Use Case: **Blockchain for Governments - Land Records**

Use Case: **Blockchain in Legal Services**

Use Case: **Blockchain in Insurance**

Use Case: **Secure Transactions with Multi-Signature Approvals**

Use Case: **Blockchain for Provenance**

Use Case: **Blockchain in E-Commerce**

Use Case: **Blockchain for Authenticity Verification**

CHAPTER 4 - BLOCKCHAIN PLUS

LO16	Understand how Blockchain compares with a traditional database (K1)
LO17	Understand and explain the advantages of Blockchain (K1)
LO18	Understand the trade-offs when using a Blockchain (K1)
LO19	Explain the differences between popular Blockchain platforms (K2)
LO20	Understand the techniques involved in testing Blockchain applications (K1)
LO21	Understand the role of Blockchain when used with other technologies like Artificial Intelligence (AI) and Internet of Things (IoT) (K1)
LO22	Explain the economic and incentive models used by popular Blockchain platforms (K2)
LO23	Understand the current state of regulations for Blockchain and Cryptocurrencies (K1)
LO24	Understand the future of Blockchain technology (K1)

- Blockchain vs Traditional Storage (RDBMS, NoSQL etc)
- Advantages of Blockchain
- Disadvantages of Blockchain
- Comparison of Different Blockchain Platforms for Enterprise Use Cases
- Blockchain and AI



- Blockchain and IoT
- Testing Blockchain Applications
- Economic and incentive models in popular Blockchain platforms
- Blockchain and Cryptocurrency Regulations
- Future of Blockchain - where is it headed?

CHAPTER 5 - BLOCKCHAIN DECISION MAKING

LO25	Apply a decision making framework to evaluate whether Blockchain is a good fit for a specific use case (K3)
LO26	Understand how Blockchain can be integrated with existing enterprise applications (K1)
LO27	Explain the various skills required by business analysts, technical architects and developers to work on Blockchain applications (K1)

- **Decision Making Framework:** When Do You Need a Blockchain?
- Integrating Blockchain With Enterprise Applications
- Business Analyst skills to evaluate Blockchain for a project
- Technical Architect skills to design Blockchain applications
- Developer Skills to build Blockchain applications

CHAPTER 6 - UNDERSTANDING THE BLOCKCHAIN DESIGN SPRINT

LO28	Understand how to use the design sprint technique to quickly build a Blockchain Proof of Concept (PoC) (K1)
LO29	Understand the different components that make up a design sprint (K1)
LO30	Understand the different stages in a design sprint (K1)
LO31	Understand the outcome of a design sprint (K1)



- Overview: Using design sprint to build a Blockchain proof of concept (PoC)
- Components of the design sprint
- Stages of the design sprint
- Outcome of the design sprint

Q&A

CLOSING NOTES

OPTIONAL COURSE EXAM - 40 QUESTIONS / 1 HOUR