Embracing Blockchain Technology for Business Transformation

Skills and expertise to help you increase your knowledge in the field of digital technologies

TLC
Education & Training Services

About this workshop

This course is built to make the learners efficient enough in handling the different verticals and challenges of blockchain technologies. You'll become proficient enough to engage with business executives and offer effective solutions for their specific needs. Moreover, this two-day workshop will help you acquire the right skill set needed to understand key challenges and their solutions subject to contents discussed in each unit of this workshop.

With a thorough and well-structured course material, this course helps students build a strong foundation in Blockchain and cryptographic technologies related concepts and then advance their practical skills and knowledge in the subject through real-world examples and use-cases.

You will learn the proven ways of approaching different business problems by following Blockchain frameworks targeting phase-wise project management and an implementation methodology following Blockchain best practices.

A study made by F5 shows that an average of **232.2 million** malicious login attempts made per day with a **0.05** success rate that translated to **116,106 successful account takeover attacks every day**, with an average of **$400 stolen** from each account.

In 2020, PwC has published a report on worldwide blockchain adoption, which finds that 84% of organizations are experimenting with the technology.

By the end of this course, you'll be able to:

- Describe the underlying economics of innovations based on Blockchain as an disrupting technology.
- Blockchain industry Use Cases and how Blockchain addresses data security.
- The role of cryptography to secure transactions using different algorithms.

Prerequisites:

Participants attending this course should be familiar with basic Information Technology (IT) concepts, business challenges and the role of general system wide infrastructure technologies and their applications. The course assumes that learners have zero knowledge of Blockchain technology.

What's the Future of Blockchain in the Business World and related challenges?

- As per a PwC report, **77%** of the financial institutions are anticipated to embrace blockchain technology as a core part of their in-production system or process by the end of 2020.
- Gartner forecasts that blockchain technology will generate an annual business value of around **USD 3 Trillion** by **2030**.
- Financial crime is becoming a greater threat for banks, business institutions, and individuals to handle and control.
- Regulators and financial authorities are challenged to introduce new strategies to **detect** and **prevent** financial crime using Digital Technologies and draw a distinction between **fraud** and **financial crime**.
- Review why applications following generalized security framework, traditional approach to security and enterprise security are struggling hard to protect data and why Blockchain is the only solution stands out as a most secure platform today.

Unit 1 – Blockchain – A Disruptive Technology

- Challenges Traditional Business Model is Facing.
- Blockchain behind the hype and the Problem Era.
- What is a Blockchain and How does Blockchain work?
- Understanding Ledgers, Transaction and Contract in general.
- No Third-Party Intermediaries – What does it mean?
- Understanding Distributed Peer-to-Peer Network in Blockchain.
- Who are Miners and their tasks and types.
- The Role of Consensus and their Algorithms – Proof-of-Work.
- Explaining Blockchain Ecosystem Components.
- Key fundamental components of a Blockchain for business.
- Understanding Public vs Private Vs Federated Blockchain.
- Blockchain Application Platforms and Technology Stack.

- Understanding Smart Contacts and their types.
- How can Blockchain impact an entire industry? Use Cases.
- Blockchain for Traceability and Key Traceability Concepts.
- Industries powered by Blockchain.
- A comparison between Blockchain and Database – Summary.
- Unit 1 Assessment.

Unit 2 – Using Blockchain Technology for Fraud Prevention

- Understanding Distributed Systems – System of Records (SOR), System of Engagement (SOE), and System of Interactions (SOI).
- Risk Defined – Three Categories of Risks.
- Understand Financial crime or fraud.
- Financial Compliance Vs Financial Crime and Fraud.
- Types of Frauds in Banking and Financial Services Industry.
- The difference between automated and human-driven fraud.
- Fraud and financial crime – A small Industry backdrop.
- Challenges to combat Financial Crime in Financial Domain.
- Cyber profile of Fraud and Financial Crime – An illustrated Example.
- Understand why crime pathways are converging, blurring traditional distinctions among cyber breaches, fraud, and financial crimes.
- The Process of Fraud Detection System.
- Types of inherent risks attached with Blockchain.
- How Blockchain Technology can Prevent Fraud?
- Understand how enhanced security is a leading benefit of blockchain technology.
- Can Blockchain eliminate all Frauds?
- Understanding Fungible and Non-Fungible Tokens – A paradigm shift.
- Blockchain for Traceability and Key Traceability Concepts.
- How AI and Machine Learning can turn the tide of fraud.
- The Process of Fraud Detection System.
- How Blockchain Prevent Identity Theft? Document Verification Use-Case.
- Benefits of Blockchain – The business value summary.
- How Cross-Border Payments happen? Study Use-Case.
- Fraud prevent strategies.
- Fraud prevention tools to consider.
- Unit 2 Assessment.

Opportunities are made, not found

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Target Audience for this course

- CIO, CDO, CISO, CTO, or any other CXO, Director IT, GM IT, Senior Managers, Business Technology Leaders, Digital and Technology Team Leaders, Data Analytics and Data Science personals, Data Warehouse Engineers, Application Software Development Teams and Programmers, Enterprise Architects, Project Managers, Business Analysts, Information and Cybersecurity team, SOC Analysts, Risk Professionals and Technical Writers.
- Senior Technology Professionals and Business Technology Leaders who want to upskill their present set of skills in the space of Blockchain Technology.

Financial compliance is now a international concern. The global cost of compliance in the financial sector alone is estimated to be around **$180.9 billion** per year.

Research estimates online fraud losses will exceed **$48 billion** per year by 2023.

45% of banks say their investigations take too long to complete, and **40%** say the investigations result in a high number of false positives, which occur when legitimate transactions that have been mistakenly flagged as fraudulent.

Are you eager to grow your blockchain specialization? Are you willing to acquire blockchain skills and knowledge? If yes, then this is the right time to take this course.

Equally ideal for individuals looking forward to pursuing a professional career in this field.

Unit 3 – The Role of Cryptographic Algorithms in Blockchain

- Apply concepts of confidentiality, integrity & availability.
- Establishment of trust through consensus and cryptography.
- Understand Cryptography and Cryptography methods – Symmetric, and Asymmetric – End to end encryption explained.
- Describe Digital Signatures and Nonrepudiation.
- Understand the role nonrepudiation in cryptosystems.
- Describe Hashing and SHA-256 algorithms with examples.
- Hashing and Blockchain relationships.
- Understanding Security Elements – Knowing security threats and their channels.
- Attack Progression Model used by Cybercriminals.
- Data Transactional Record Model.
- What is Merkle Tree and why it is vital in Blockchain.
- Establishment of Trust through consensus and cryptography.
- Security Controls at different Tiers of Blockchain Technology.
- Blockchain literacy gaps – The biggest challenge.
- Blockchain Security Reference Architecture and Blockchain Security Model.
- A blockchain network is only as secure as its infrastructure.
- Understand Digital Wallets and their types.
- Maintaining Wallet Security following Best Practices.
- Unit 3 Assessment.

Unit 4 – Blockchain Project Phases and Framework

- Recommendations for starting a Blockchain project?
- Business criteria to consider a Blockchain solution.
- Blockchain delivers business value in three primary areas.
- Implementation challenges in Blockchain Technology.
- Recommended Blockchain engagement model overview.
- Design Thinking – A brief overview.
- Solution Design – A methodology to follow.
- Criteria for developing a Blockchain project roadmap.
- Seven high-level phases of a project management.

- Why most project fails?
- The adoption of Blockchain technology – Key Prerequisites.
- Using Blockchain as a project management device.
- Seven Phases of Blockchain Implementation.
- Enterprise Blockchain Framework.
- Leading enterprise frameworks for implementing Blockchain solutions
- How to best choose the appropriate Enterprise Blockchain Framework.
- Generic Layered Architectural model for Blockchain application.
- Blockchain Research Landscape.
- Blockchain best practices enterprises need to know.
- Key Steps in Block Adoption – Blockchain in Banking industry.
- Steps to Create your Blockchain Solution.
- Tutorials – Resources for using different Hyperledger projects.
- Unit 4 Assessment.

Decade-old Blockchain technology has gained high popularity in recent years. It was created to keep records of digital currencies like Bitcoin, but today, this technology serves as a decentralized system for businesses due to its evolution over the years.

The best part of this course is that the concepts are explained with the help of real examples. This means you will get a good idea of the business problems related to Blockchain. This course uniquely presents the behind-the-scenes of the company working space so that the students understand various business verticals.

The course features a detailed overview of the blockchain ecosystem, covering the various challenges and blockchain platforms in a broader prospect. You will also acquire in-depth knowledge of other decentralization models and different types of Blockchain frameworks.

This course will be delivered by **Certified Blockchain Expert** – **Blockchain Council**.

Detail Information

Course Code : TN215
Course Duration : 2 Day Workshop
Course Location : TLC, Online and Customer On-site.
Terms & Conditions :100% payment in advance.
Course Deliverable: Comprehensive Student Guide and Course Certificate

For additional information, please write to us at: info@tlcpak.com

Certified Blockchain Expert
CBE

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