BLOCKCHAIN DEVELOPER TRAINING

Learn how to leverage Blockchain technology to reduce cost, improve efficiency, and streamline your business processes

PROGRAM OVERVIEW

Blockchain is disruptive technology that is expected to revolutionise the world of trusted transactions. Through a combination of cryptographic techniques, a distributed, shared, and immutable ledger, consensus validation of transactions, and a financial audit trail, Blockchain is poised to do for businesses what the Internet did for communication. With its promise of reducing cost, time, friction, and fraud in business transactions and ensuring trust, identity management and reputation management, companies around the world are now contemplating their transition to Blockchain versions of themselves. In partnership with IBM's skills academy, the University of Wollongong in Dubai is offering the Blockchain Developer Training. This track introduces professionals to Blockchain concepts such as business networks, participants, assets, and trusted transactions, using Hyperledger Fabric, Hyperledger Composer, and the IBM Blockchain Platform. Furthermore, upon the successful completion of the training and exam, attendees will be awarded IBM's Blockchain Developer's Mastery Badge.
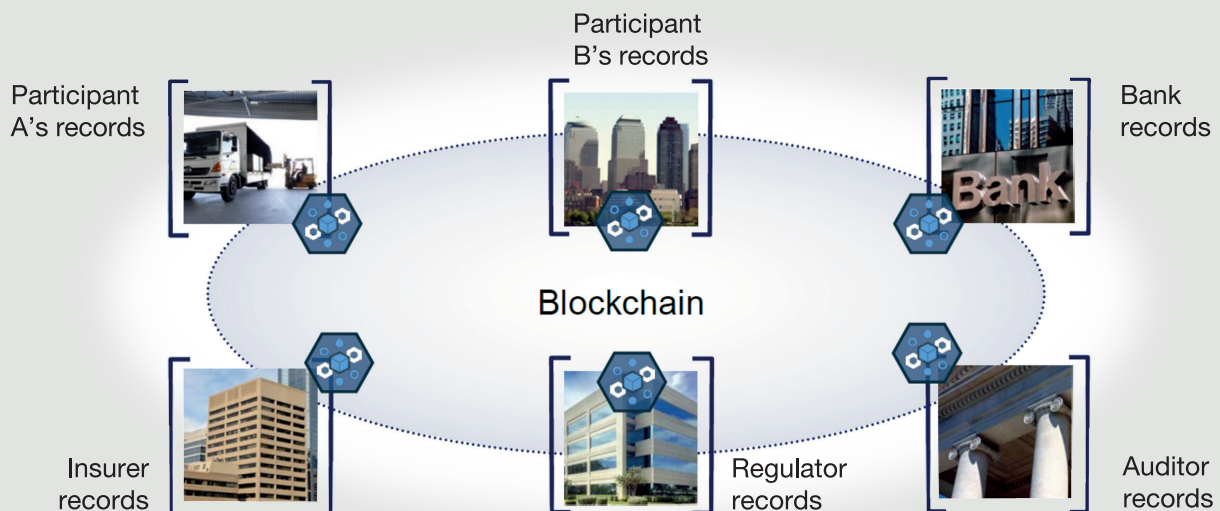
WHAT THE PROGRAM COVERS

This program will allow participants to:
- Acquire knowledge and practical skills in the design and implementation of Business Blockchain-based solutions.
- Gain an in-depth understanding of Blockchain related concepts
- Analyse scenarios and use cases for potential transition to a Blockchain-based implementation.
- Apply the learned concepts and gain hands-on skills with practical Blockchain platforms and tools, such as Hyperledger Fabric and Hyperledger Composer.
- Obtain an IBM Digital Certification in Blockchain Development.

KEY PROGRAM BENEFITS

Upon completing this training and receiving your IBM Mastery Badge as Blockchain Developer, you will be able to:
- Ensure that your business/organisation stays relevant by exploring the opportunities for Blockchain based solutions.
- Analyse the suitability and potential benefits of Blockchain deployments in your Organisation.
- Design, implement, and deploy Blockchain business applications, using the Hyperledger platform.
- Secure Blockchain-based applications.
- Integrate Blockchain-based applications with existing systems.
- Become a Certified Blockchain Developer.

Participant A's records | Participant B's records | Bank records

Blockchain

Insurer records | Regulator records | Auditor records

Recognising Blockchain as the next wave of evolution in the world of business transactions, nations around the world are investigating its adoption in different sectors, including government, healthcare, education, and others. The Dubai Smart Government has defined its Blockchain strategy that aims at transforming Dubai into the first city fully powered by Blockchain, by 2020. This course is ideal for senior managers, middle managers, entrepreneurs and business owners who have a keen interest in investing in and adopting Blockchain technology. It is also aimed at those in more technical roles who would like to take on a leadership role in implementing streamlined and efficient Blockchain-based business solutions.

WHAT YOU WILL LEARN

This training program consists of 40 hours of instructor-led training and self-paced readings. The instructor-led training combines traditional teaching components, with case studies, in-class discussions and hands-on activities performed on virtual labs, to enable working knowledge and experience with the Blockchain technology and its related tools.

LEARNING MODULES

The training consists of three main modules, offered over five days:

MODULE 1 | **BLOCKCHAIN OVERVIEW**
Blockchain overview, business requirements and case studies.

MODULE 2 | **PREREQUISITES**
- Introduction to HTML5 and JavaScript Programming
- NodeJS, Server-side JavaScript, call back functions
- Docker Essentials, Containers Orchestration
- Getting Started with Kubernetes

MODULE 3 | **BLOCKCHAIN DEVELOPER**
- Blockchain principles and its use in the enterprise
- Blockchain infrastructure and applications
- Identify participants, assets, transactions in a business network
- Hyperledger Fabric and Hyperledger Composer
- Blockchain solution architecture
- Peers, smart contracts, channels, world-state
- Consensus, ordering service, and transaction endorsement
- Chain code structure, life cycle and deployment approaches
- Blockchain deployment with Docker and Kubernetes
- Blockchain security on Hyperledger Fabric and Composer
- Blockchain integration including SDKs, APIs, IOT, and Cloud

IBM OPEN BADGES

Blockchain Developer:

EXPLORER | MASTERY AWARD

DR MAY EL BARACHI (PROGRAM INSTRUCTOR)

Dr May El Barachi is a next generation networking expert holding a PhD and Master's degree in Computer Science from Concordia University (Canada). She has 12 years' experience in the field with a strong focus on smart and resource efficient systems. During those years, she acquired academic experience as associate professor and has worked as researcher with Ericsson Research Canada. She co-founded and directed a cutting-edge research lab aiming at investigating sensory, cloud, and mobile technologies. Presently, she works as Associate Professor at University of Wollongong Dubai and is involved in several research collaborations with international universities and local industrial partners.

Dr El Barachi is also an expert in emerging technologies, including: Internet of Things, Sensory Networks, Crowdsensing, Blockchain, Big Data Analytics, Network Function Virtualization, Enhanced Cloud Computing Systems, and smart cities. She is the leader of the Sensors and IoT research group at University of Wollongong in Dubai.