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| **Block Chain Course Curriculum** |

**Module # 1: Cryptocurrency & Blockchain:**

* **Objective:**
* Understand the drawbacks in current Financial System
* Infer how spectrum of finance can be secured using Distributed System
* Induce the key concepts which constitutes the Distributed System
* Infer various types of Cryptocurrencies
* Deduce various uses of Cryptocurrencies
* **Topics:**
* Transformation in trading units
* Cryptography and Crypto-Currency
* Anonymity and Pseudonymity in Cryptocurrencies
* Digital Signatures
* Cryptocurrency Hash Codes
* Distributed Networks
* **Skills:**
* Cryptography Concepts
* Cryptocurrencies
* Distributed Ledger – Concepts

**Module # 2: Delving into Blockchain:**

* **Objective:**
* Explain blockchain and its uses
* Grasp the components of a blockchain ecosystem
* Induce the structure and mechanisms of a blockchain
* Fathom different types of blockchain
* Infer various types of blockchain platforms
* **Topics:**
* Introduction to Blockchain
* Why Blockchain is crucial?
* Key vocabulary while discussing Blockchain
* Distinction between databases and blockchain
* Explaining Distributed Ledger
* Blockchain ecosystem
* Blockchain structure
* Working of blockchain technology
* Permissioned and permission-less blockchain
* **Skills:**
* Cryptography concepts
* Cryptocurrencies (Bitcoin)
* Distributed Ledger – Concepts
* Consensus Methods
* **Hands On:**
* Show how a blockchain works

**Module # 3: Cryptocurrency and Blockchain:**

* **Objective:**
* Infer cryptocurrency and its uses
* Deduce, how to store, buy and sell different cryptocurrency
* Setup your own different cryptocurrency wallet
* Explain the working of different cryptocurrency transaction system.
* Perceive the scripting language
* Deduce nodes and network
* Comprehend various roles a person can play in Bitcoin ecosystem
* **Topics**
* Cryptocurrency and its History
* Why use cryptocurrency?
* Where and how to buy cryptocurrency?
* How to store cryptocurrency?
* How and where to spend cryptocurrency?
* Selling different cryptocurrency
* **Skills:**
* Cryptocurrencies (Bitcoin)
* **Hands On:**
* Setting up wallet
* Creating a paper wallet
* Transaction tracking

**Module # 4: Cryptocurrency Mining:**

* **Objective:**
* Deduce the purpose of mining
* Comprehend bitcoin mining
* Perceive the importance of mining pools
* Infer bitcoin security
* **Topics**
* Purpose of Mining
* Algorithm used in mining
* Mining hardware
* **Skills:**
* Cryptocurrencies
* Mining Bitcoins
* **Hands On:**
* Installing bitcoin mining software
* Mining bitcoin on your PC

**Module # 5: Consues Mechanism:**

* **Objective:**
* Understand diffferent consensus mechanism
* **Topics:**
* POW
* POS
* DpoS
* BFT
* **Skills:**
* Learn differnt consues mechanism
* Difference between consues mechanism

**Module # 5: Advance Concept:**

* **Objective:**
* Understand ICO
* How ICO are conducted
* **Topics:**
* ICO
* Liqidity roviders
* IPFS

**Module # 6: Prospects of Blockchain:**

* **Objective:**
* Understand various practical uses of blockchain
* Infer the Impact of blockchain on our world
* Explain blockchain using real case scenarios
* Infer a blockchain application platform
* **Topics:**
* Blockchain prospering our world
* Blockchain transforming business and professionalism
* Discussing practical use-cases of blockchain
* How can we take Aadhaar Card on blockchain?
* How blockchain can be used to remove corruption
* Real case scenarios of Blockchain
* Blockchain in Banking System
* Blockchain in Land Registry
* Blockchain in Capital Market
* Use cases for government
* Summary of the course
* **Skills:**
  + Blockchain frameworks and business applications