Blockchain Training Course Content

- **Basics of Blockchain**
  - Decentralization
  - Blockchain Definition
  - Properties of Blockchain
  - Types of Blockchain
  - Public and Private Blockchain Introduction
  - Immutability and Transaction Linkage
  - Consensus Algorithms Introduction
  - Cryptographic Techniques used: Hashing and Digital Signature
  - Blockchain Use-cases
- **Bitcoin**
  - What is Bitcoin
  - History of Bitcoin
  - How Bitcoin Blockchain works
  - Different components of Bitcoin network: Wallets, Miners, Network.
  - Bitcoin transactions, Wallets and Exchanges
  - How Blockchain is implemented in Bitcoin
  - Transaction flow
  - What is consensus
  - POW Mining algorithm
  - Forks
- **Ethereum**
  - Ethereum Introduction
  - Architecture of Ethereum
  - How blockchain is implemented in Ethereum
  - Different components of Ethereum
    - Accounts, State, Gas and Fees,Block structure.
  - Ethereum Proof of Work Algorithm.
  - Introduction to Proof of Stake and Casper
  - Forks and Ghost Protocol
  - Different Ethereum Networks
  - Setting up our own Ethereum Node : public and private.

Blockchain Training Course Content

- Remix IDE
- Ethereum Smart Contract Language: Solidity
  - Introduction, compilers and IDE's
  - Tools available for solidity
  - Contract structure
  - Data types, function types and other solidity features
  - Libraries, Abstract Contracts etc
  - Sample solidity programs
- ERC Standards: ERC20, ERC721
- Creating our own ERC20 token and How can we do ICO.
- Web 3 introduction & Infura services
- Truffle Framework
- How to develop unit test cases using Truffle

- **Hyperledger**
  - Private Blockchain Introduction
  - Private vs Public Blockchains
  - Different Hyperledger Tools/Frameworks
  - Hyperledger fabric Architecture
  - Transaction workflow
  - Hyperledger Fabric components
  - Chaincode Introduction
  - How to setup your own fabric network in Local Machine/VM
  - How to write chaincode in Golang/Nodejs
  - How to develop API using Hyperledger fabric Node SDK