

### BlockChain Course Content

#### **Introduction to Blockchain**

- What is Blockchain?
- History of Blockchain
- Explaining Distributed Ledger
- Blockchain ecosystem
- Explaining Distributed Ledger

## **Types of Blockchain**

- Private/Consortium/Permission-less
- Public/Permissioned implementation difference
- What Blockchain has to offer across Industry?
- Companies currently using Blockchain
- Overview of what we are going to study in this course

## **Key Concepts of the Blockchain**

- Mining -Mining algorithm
- Node, peer and block explanation
- Merkle tree and Blockchain
- Consensus Mechanisms- proof of work, proof of stake
- How Bitcoin Blockchain works?
- What is Transaction?

### **Introduction to Ethereum**

- Ethereum : Blockchain with smart contract
- What is Ether?
- Bitcoin vs Ethereum Blockchain
- What is Ethereum wallet?
- What is Smart Contract?
- Ethereum clients
- Geth Introduction
- Setting up Private Blockchain using Geth



# **Learn Solidity**

- Introduction to solidity
- Hands on solidity
- Understand and implement different usecases
- Implement and deploy smart contract on Blockchain

## **Implement Dapp**

- Setting up the environment
- Tools to install Truffle, Metamask, Testrpc
- Implement and deploy your first Dapp
- Different usecases for implementation of Dapp

# **Future Scope**

- Talk about the future of the Blockchain
- What is Hyperledger?
- What is Hashgraph?
- Discussion on current research on Blockchain
- Understand current industry challenges and needs
- Conclude the course