Blockchain Developer Certification- Ethereum

Course Outline:

Lesson 1: WHAT IS BLOCKCHAIN AND SMART CONTRACTS?
- What is Blockchain and how does it work?
- Bitcoin vs Ethereum
- Smart Contract
- How you can use Smart Contracts?
- Advantages of Smart Contracts
- Solidity

Lesson 2: SMART CONTRACT EVENTS WITH WEB3.JS

- Installing & Running the Ethereum TestRPC and Web3.js
- Changing the Environment in Remix
- Creating the UI
- Using Web3.js to Connect & Interact with the Smart Contract
- The Current Contract
- Defining the Smart Contract Event

Lesson 3: FUNCTIONS, MAPPINGS AND STRUCTS

- Functions
- Mappings
- Structs
- The Smart Contract
- Web3 UI's Modifier Handling
- Struct and Mapping
- The Full Contract

Lesson 4: INHERITANCE AND DEPLOYMENT

- Object-oriented programming
- Inheritance
- Creating a Base Contract
- Changing from Strings to bytes
- Installing MetaMask
- Deploy Contract to the Ropsten Test Network
- Using the App

Lesson 5: EMBARK FRAMEWORK AND ITS DEPLOYMENT

- Blockchain (Ethereum)
- Decentralized Storage (IPFS)
- Decentralized Communication
- Web Technologies
- First Contract Deployment with Embark Framework

Lesson 6: SOLIDITY SMART CONTRACTS TESTING

- What is Software Testing?
- Contract Management with Factories

Lesson 7: IPFS FILES HOSTING

- IPFS
- FILES HOSTING
- Install IPFS on your hosting Server

Lesson 8: END TO END DEVELOPMENT OF DAPP

- AIM
- Program the Smart Contract
- Create the Front-end of the application
- Deploy the App with IPFS