# Certified Hyperledger Fabric Developer

#### Identity Management (8 Hours – Day 1 and Day 2)

- Instantiate a wallet
- Import identities to a wallet
- Select and manage identity from a wallet

## Network Configuration (8 Hours – Day 3 and Day 4)

- Create and use connection profiles
- Instantiate and connect to a gateway
- Access networks and contracts

## Smart Contract Development (8 Hours – Day 5 and Day 6)

- Define smart contract class/construct
- Define transaction functions
- Validate and sanitize inputs and arguments
- Implement deterministic logic/code
- Simple state interaction (Get, Put, Delete)
- Execute simple queries
- Create complex queries
- Define assets using key value pairs
- Identify potentially private data
- Incorporate private data collection
- Implement attribute based access control
- Initialization of the ledger state
- Install and instantiate a smart contract

#### Smart Contract Invocation (8 Hours – Day 7 and Day 8)

- Invoke smart contracts via CLI
- Submit one or more transactions
- Evaluate transaction functions e.g. for queries

- Query transaction history
- Call a transaction using transaction class (stateful)
- Create and issue an application contract
- Register and handle channel-based events

#### Maintenance and Testing (8 Hours – Day 9 and Day 10)

- Handle error and success responses
- Identify and review logs
- Unit test contracts
- Diagnose and endorse policy conflicts
- Identify and correct non-determinism in functions
- Troubleshoot transaction flow