

Solidity Programming

Table of Contents

1. Blockchain Primer

- What is Blockchain
- How Blockchain Work
- Hash Function for PoW and Blocks
- Secure Transaction with Public Key Cryptography
- Blockchain Platforms - Ethereum vs Hyperledger Fabric

2. Ethereum Blockchain Basics

- What is Ethereum
- DApps and Ethereum Virtual Machine (EVM)
- Ether and Gas
- MetaMask - Send and Receive Ether
- EtherScan - Check Blockchain Transactions

3. Get Started on Solidity

- Overview of Solidity
- Remix IDE
- Pragma
- Contract
- Comments

4. Function

- Function Syntax
- Visibility
- State Mutability
- Return
- Getter and Setter
- Constructor
- Function Modifier

5.State Variables and Data Types

- State Variables
- Data Types
- Struct & Enum
- Array
- Mapping
- Global Variables

6.Control Statements

- Operators
- Conditional
- Loop
- Break and Continue

7. Abstract Contract and Inheritance

- Abstract Contract
- Inheritance
- Interface

8.Libraries

- Create a Library
- Import a Library
- Use a Library

9.Event

- Create Event
- Emit Event