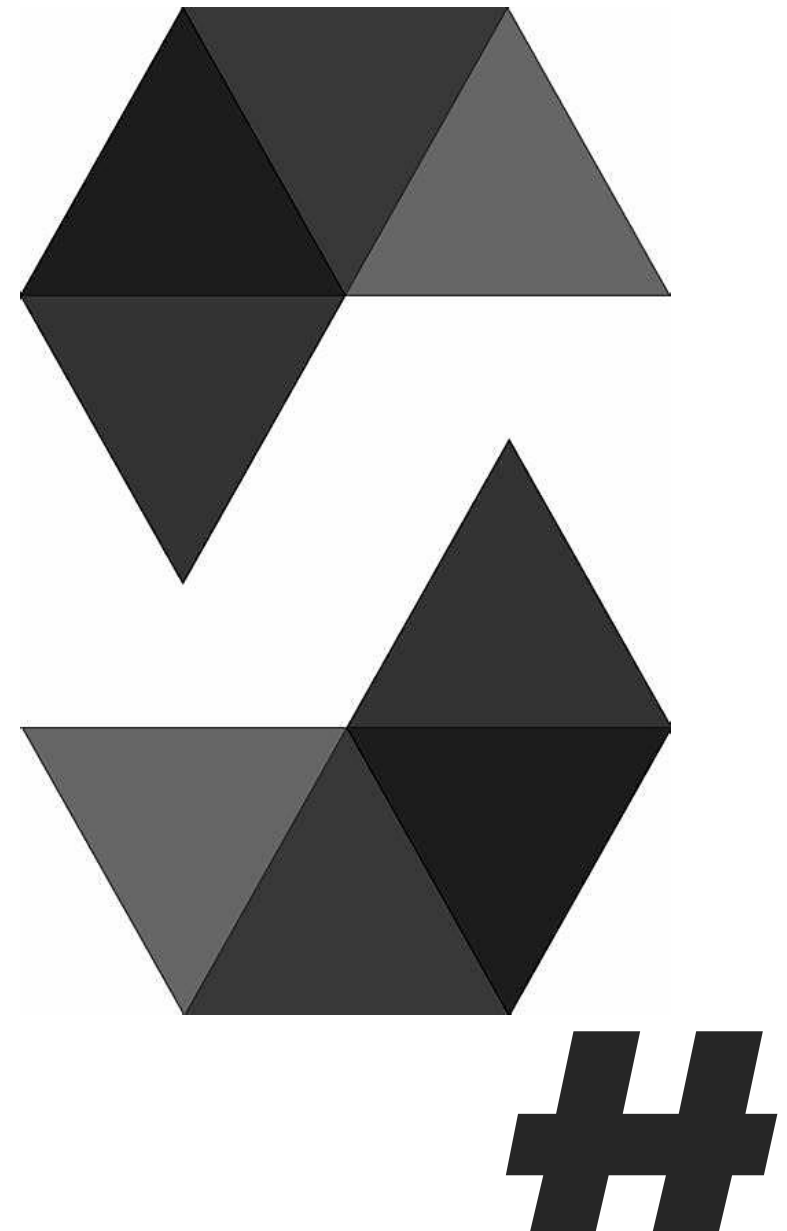


SOLIDITY

A BRIEF INTRODUCTION TO **SOLIDITY**

PROVIDERS

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W I K I	1
E X P L A N A T I O N	2
C O M P I L E R	3 - 4
C O N T R A C T	5
S Y N T A X	6
S Y N T A X E X P L A I N E D	7
P R O J E C T	8

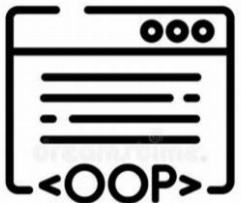
SOLIDITY

W I K I



Paradigm

OOP



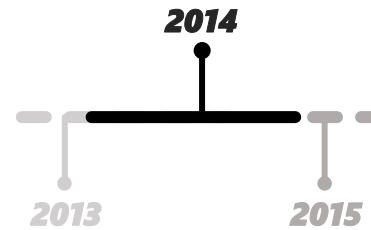
Designed by

Gavin Wood



First appeared

August 2014



Influenced by

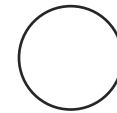
JS C++ Python



SOLIDITY

E X P L A N A T I O N

a **high-level** programming language designed for developing smart **contracts** on the Ethereum blockchain.





SOLIDITY

C O M P I L E R

Solidity is a compiled language. It compiles down to **Ethereum Virtual Machine (EVM)** bytecode, facilitating the execution of decentralized applications and automated agreements.

SOLIDITY

C O M P I L E R

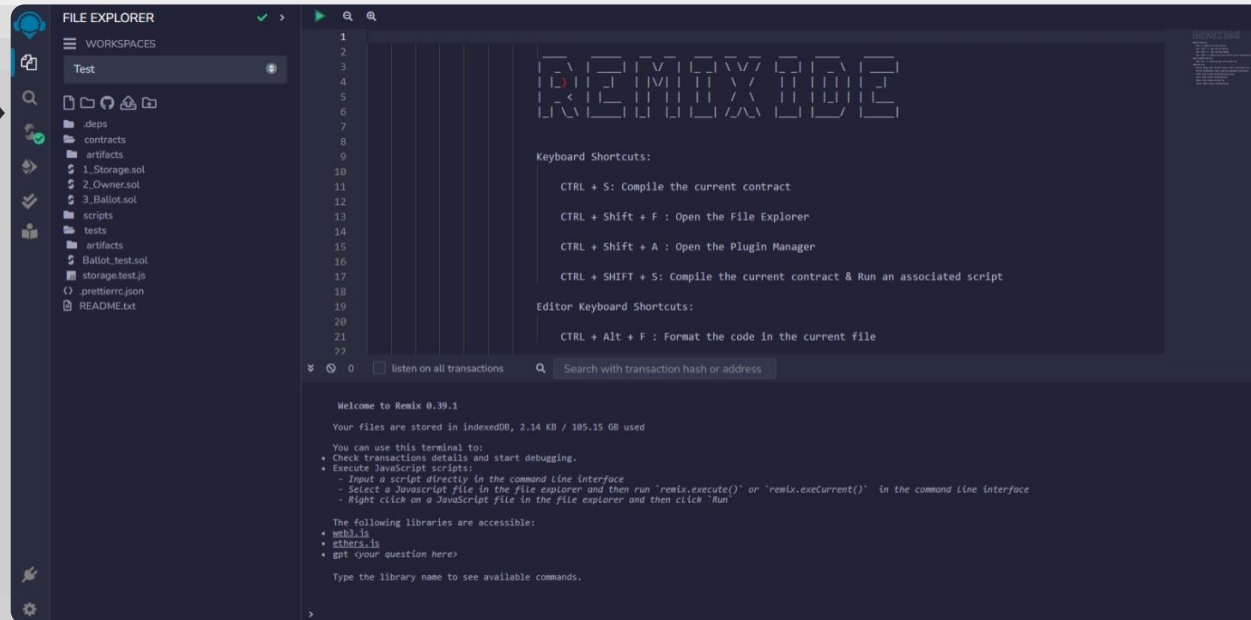
Remix



Truffle



Hardhat

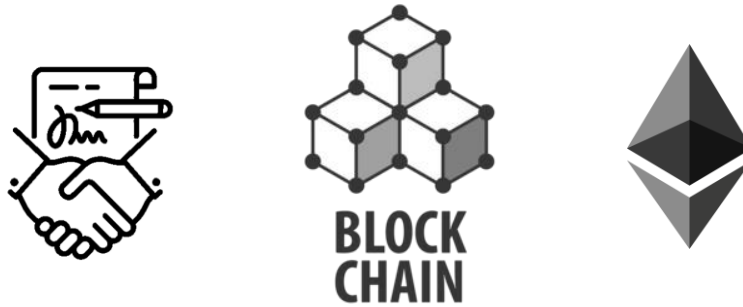


Ethereum Virtual Machine IDE, Remix

SOLIDITY

C O N T R A C T

A **smart contract** is a self-executing agreement with the terms of the contract directly written into code.



SOLIDITY

S Y N T A X

```
// Solidity version declaration  
pragma solidity ^0.8.0;
```

```
// Contract definition  
contract SimpleContract {  
    // State variable  
    uint256 public value;
```

```
    // Event declaration  
    event ValueUpdated(uint256 newValue);
```

```
    // Function to update the value  
    function updateValue(uint256 newValue) public {  
        value = newValue;  
        emit ValueUpdated(newValue);
```

```
    }  
}
```

```
// Function to update the value  
function updateValue(uint256 newValue) public {  
    value = newValue;  
    emit ValueUpdated(newValue);
```


SOLIDITY

S Y N T A X E X P L A I N E D

Pragma solidity ^0.8.0; This line specifies the version of Solidity that the contract should use.

Contract simplecontract { ... }; This is the declaration of the smart contract named Simple Contract.

Uint256 public value; This line declares a state variable value of type uint256 (unsigned integer) that can be accessed publicly.

Event valueupdated(uint256 newvalue); This line declares an event named ValueUpdated, which can be emitted when the value is updated.

Function updatevalue(uint256 newvalue) public { ... }; This is a function named updateValue that takes a parameter newValue and updates the value with the new value. It also emits the ValueUpdated event.

SOLIDITY

P R O J E C T

SOLIDITY SIMPLE PROJECT

THANK YOU