

Solidity

30/09/25

2nd lesson : Simple Storage



This is a beginner-friendly cheat sheet, made by a beginner for beginners.

⚠ I'm still learning, so there may be small mistakes — don't hesitate to double-check!

Note: Keywords in **bold white** have their own mini flashcards at the end.

```
1 // SPDX-License-Identifier: MIT
2 pragma solidity ^0.8.0;
3
4 contract SimpleStorage
5 {
6     uint private storeNumber;
7     function setNumber(uint _number) public {
8         storeNumber = _number;
9     }
10
11     function getNumber() public view returns (uint) {
12         return storeNumber;
13     }
14 }
```

Seen in Lesson 1 HelloWorld

Create a setter function

```
function FunctionName (type _parameterName) visibility {
    StateVariableName = _parameterName;
}
```

- **function** → declares the function
- **function name** → here: setNumber
- **(type _parameterName)** → type of the parameter (uint, string, etc.)
- **visibility** → public (anyone can interact with it)
- **stateVariableName =** → assigns a value to the state variable
- **_parameterName** → the new value being stored in the state variable

Create a getter function

```
function FunctionName () visibility modifier returns (type) {
    return storeNumber;
}
```

- **function** → declares the function
- **function name** → here: getNumber
- **()** → parameter, empty bcs contains any data
- **visibility** → who can interact
- **modifier** → view = the rule
- **returns (type)** → output
- **return storeNumber** → gives value of store value

Setter function

Updates a state variable in a smart contract.

- Takes input (parameter) to store a new value.
- Modifies blockchain state → costs gas.
- Visibility usually public to allow external interaction.

Getter function

Purpose: Reads and returns the value of a state variable without modifying the blockchain.

- Takes no input (empty parentheses ()) if no parameters).
- Does not modify blockchain → free to call (no gas).
- Visibility usually public to allow external access.