



37 lines (28 loc) · 901 Bytes

Preview

Code

Blame

Raw



marp

true

Storage Variables

Variables declared in contract scope are storage variables





Solidity stores these in contiguous storage slots

```
contract Example {  
    uint256 a; // storage slot - 0x0  
    uint256 b; // storage slot - 0x1  
    bool public c; // storage slot - 0x2  
  
    function store() external {  
        // read storage slot 0x1  
        // store it in storage slot 0x0  
        a = b;  
  
        // read storage slot 0x1  
        // store it in memory (not persistent!)  
        uint x = b;  
    }  
}
```



Things to know about storage slots

- 🔭 variables stored in contract scope allocate a storage slot (except for constant)

-  slots are 32 bytes (`0x1` means `0x000...001`)
-  solidity stores variables contiguously (`0x0` , `0x1` , etc...)
-  reading/writing to storage is relatively super expensive to other opcodes
-  variables can be packed together, automatically or manually