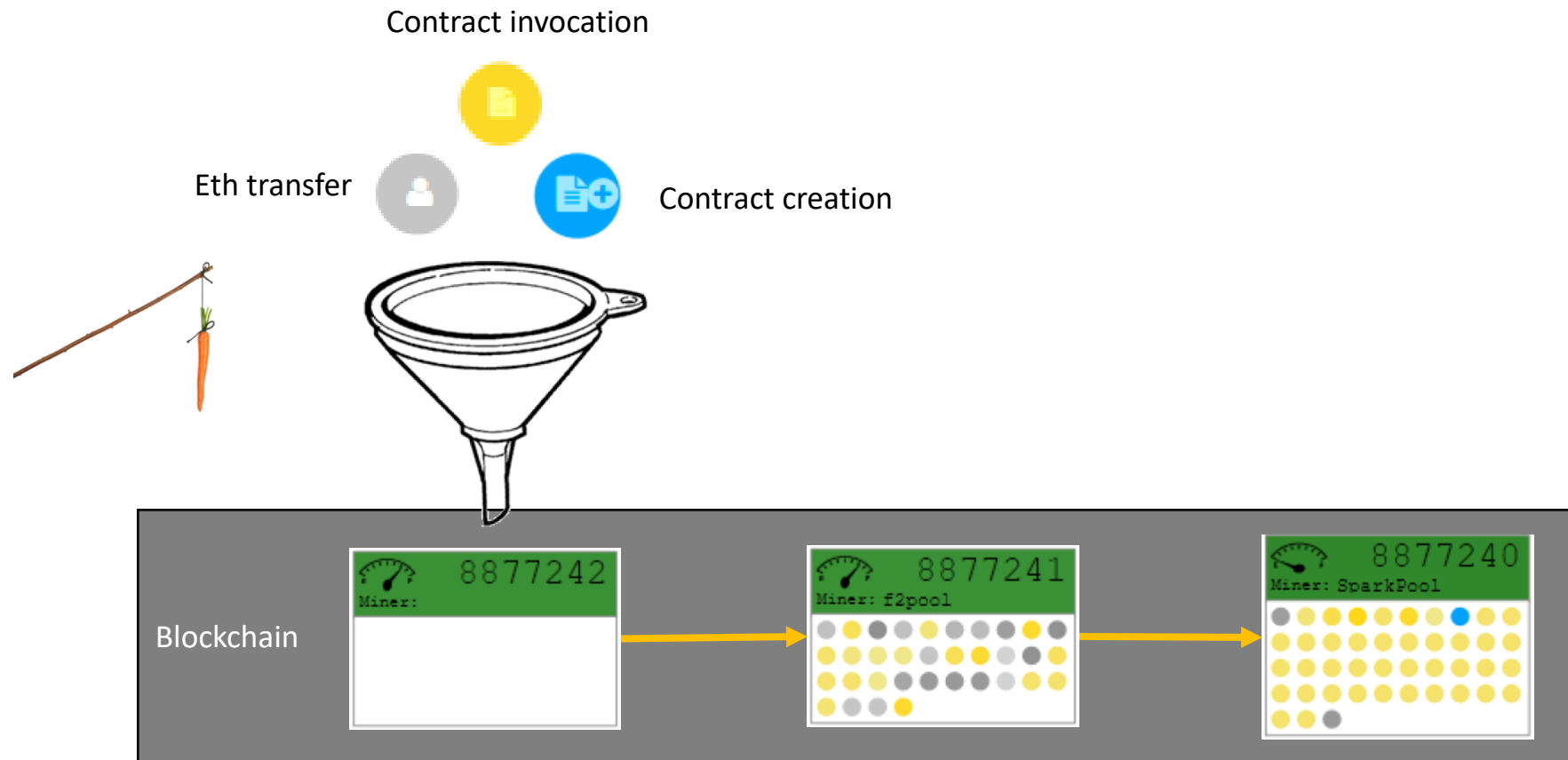


Dapps for beginners

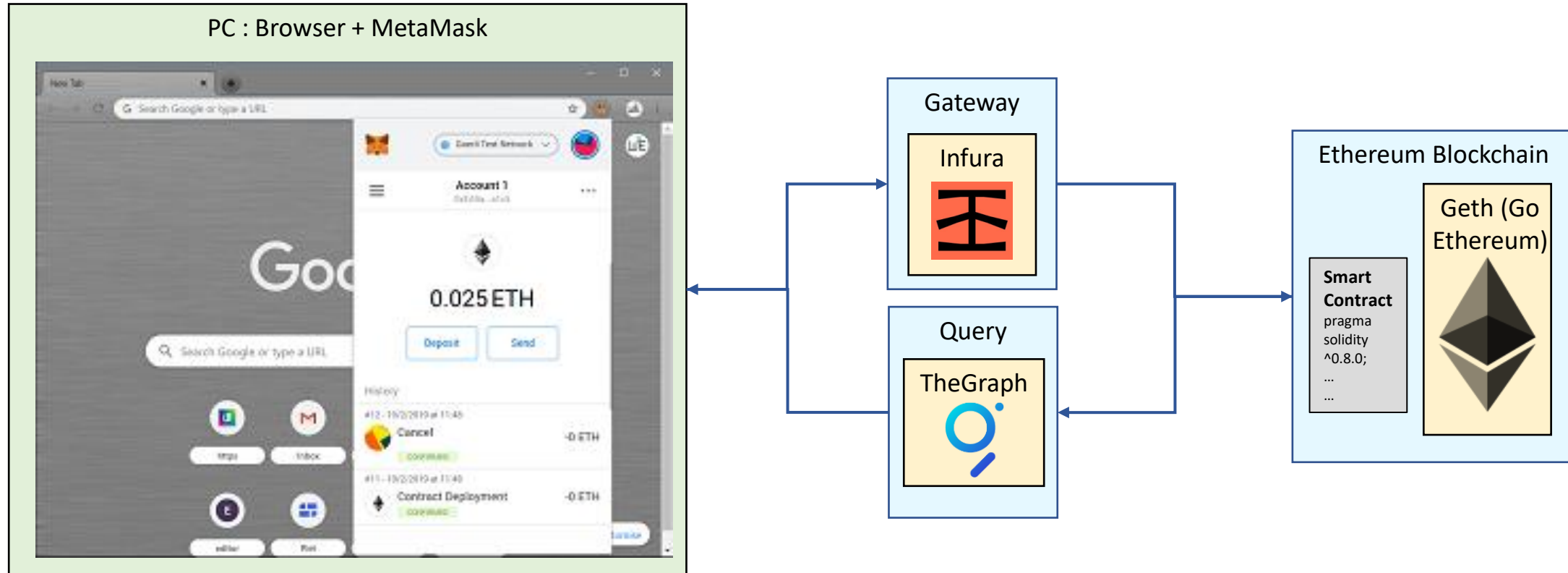
Sheets

https://web3examples.com/dapps_sheets/Dapps.pdf

Principle of a blockchain



DAPP architecture (Ethereum like chains)



Remix

The screenshot displays the Remix Ethereum IDE interface. The top bar shows the browser address: `remix.ethereum.org/#optimize=false&runs=200&evmVersion=null&version=soljson-v0.8.7+commit.e28d00a7.js`. The left sidebar, titled "FILE EXPLORERS", shows a file tree for "default_workspace" with folders "contracts", "scripts", and "tests". The "contracts" folder is expanded, showing files: "1_Storage.sol", "2_Owner.sol", "3_Ballot.sol", and "GetSetEmit.sol" (which is selected). Below the file explorer are icons for Workspaces, a refresh button, a plug icon, and a settings gear. The main editor area has two tabs: "Home" and "GetSetEmit.sol". The "GetSetEmit.sol" tab is active, showing the following Solidity code:

```
1 // SPDX-License-Identifier: GPL-3.0
2 pragma solidity ^0.8.7;
3
4 contract SetGetEmit {
5     uint8 public storedData;
6     event Log(string message,address caller, uint8 value);
7
8     function Set(uint8 x) public returns (uint8) {
9         storedData = x;
10        emit Log("In function set",address(this), storedData );
11        return storedData;
12    }
13
14    function Get() public view returns (uint8) {
15        return storedData;
16    }
17 }
```

Below the code editor, there is a status bar showing "ContractDefinition SetGetEmit" with "0 reference(s)". Below that is a search bar with the placeholder text "Search with transaction hash or addr...". At the bottom, there is a terminal area with the text: "Welcome to Remix 0.18.0 -" and "You can use this terminal to:".

Etherscan

Remix - Ethereum IDE

Contract Address 0x3aEA1b69A0

+

goerli.etherscan.io/address/0x3aEA1b69A0de7619f3538f98ca90dD0013589a5f

Etherscan

All Filters

Search by Address / Txn Hash / Block / Token / Ens

Go

Goerli Testnet Network

HomeBlockchainTokensMiscGoerli

Contract 0x3aEA1b69A0de7619f3538f98ca90dD0013589a5f

Contract Overview

Balance: 0 Ether

More Info

My Name Tag: Not Available



Contract Creator: 0xea9a7c7cd8d4dc3acc... at txn 0xd389b4c8477d0748c2...

Transactions

Contract

Events

Latest 1 from a total of 1 transactions

Txn Hash	Method ⓘ	Block	Age	From ⌵	To ⌵	Value	Txn Fee
 0xd389b4c8477d0748c2...	0x60806040	5507165	37 secs ago	0xea9a7c7cd8d4dc3acc...	IN Contract Creation	0 Ether	0.000216404001 

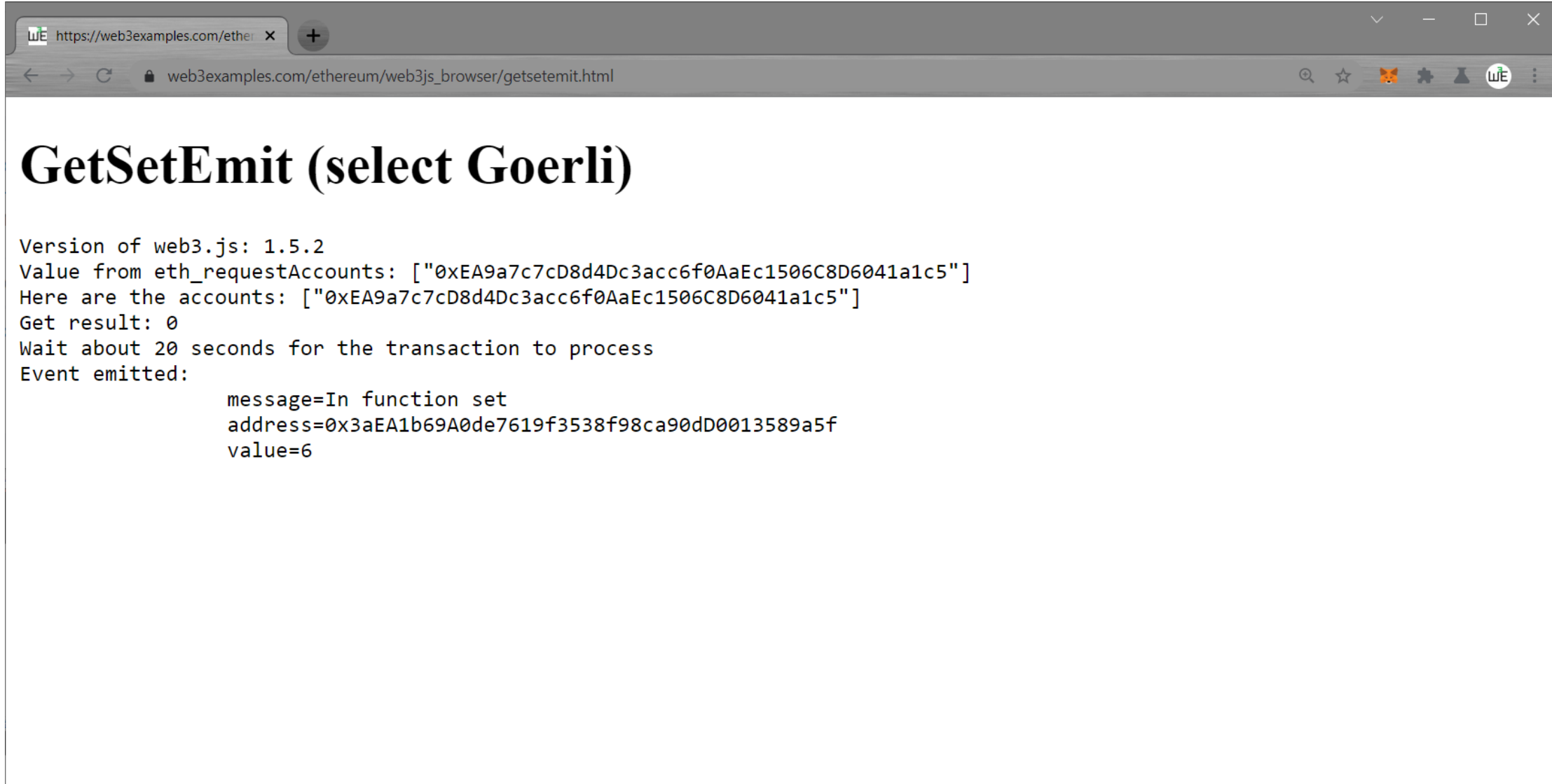
[Download CSV Export]

GetSetEmit website source

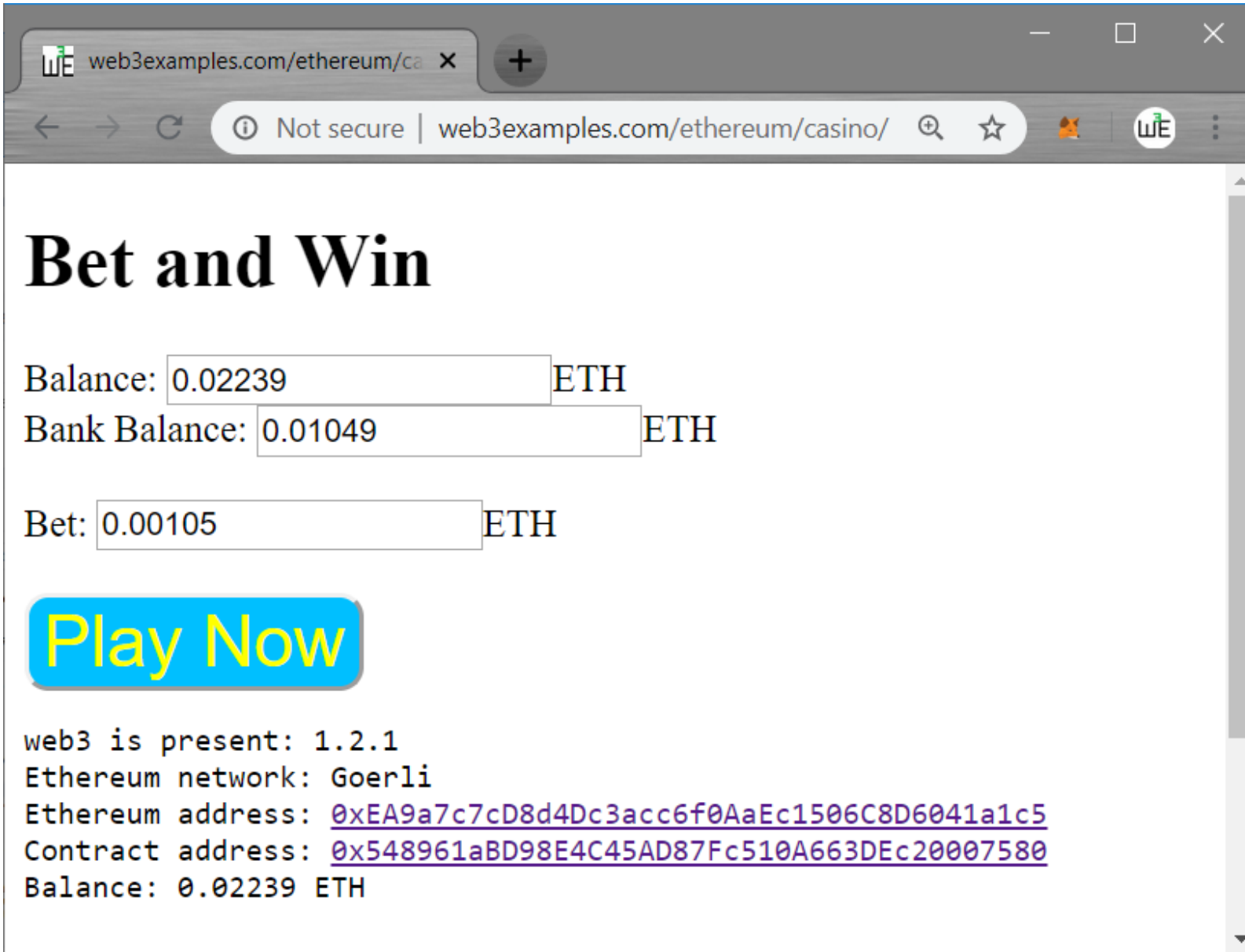
```
getsetemit.html
1  <!-- https://github.com/web3examples/ethereum/blob/master/solidity_examples/GetSetEmit.sol -->
2  <!DOCTYPE html>
3  <html>
4  <head>
5  <meta name="viewport" content="width=device-width, initial-scale=1.0">
6  <script src="https://unpkg.com/web3@latest/dist/web3.min.js"></script>
7  </head>
8  <body>
9  <h1>GetSetEmit (select Goerli)</h1>
10 <pre id="log" style="width:100%;height:200px"></pre>
11 <script type="text/javascript">
12 function log(logstr) {
13     document.getElementById("log").innerHTML += logstr + "\n";
14 }
15 const GetSetEmitABI = [
16     { //ABI Log event Log(string message, address caller, uint8 value)
41     { //ABI Get function Get() public view returns (uint8)
56     { //ABI Set function Set(uint8 x) public returns (uint8)
77     { //ABI storedData uint8 public storedData
92 ];
93 async function f() {
94     //Prepare
95     web3 = new Web3(Web3.givenProvider); //provider from metamask
96     log(`Version of web3.js: ${web3.version}`);
97     var result = await web3.eth.requestAccounts().catch(x => log(x.message));
98     log(`Value from eth_requestAccounts: ${JSON.stringify(result)}`);
99     var acts = await web3.eth.getAccounts().catch(log);
100    log(`Here are the accounts: ${JSON.stringify(acts)}`);
101    //Connect contract
102    var GetSetEmitAddress = "0x3aEA1b69A0de7619f3538f98ca90dD0013589a5f"; //Goerli address
103    var GetSetEmitContract = new web3.eth.Contract(GetSetEmitABI, GetSetEmitAddress);
104    //Get
105    result = await GetSetEmitContract.methods.Get().call({from: acts[0]}).catch(console.log);
106    log(`Get result: ${result}`);
107    //Set
108    log(`Wait about 20 seconds for the transaction to process`);
109    result = await GetSetEmitContract.methods.Set(6).send({from: acts[0]}).catch(console.log);
110
111    var decoded = result.events.Log.returnValues;
112    log(`Event emitted: message=${decoded.message} address=${decoded.caller} value=${decoded.value}`);
113 }
114 window.addEventListener('DOMContentLoaded', f);
115 </script>
116 </body>
117 </html>
```

https://github.com/web3examples/ethereum/blob/master/web3js_browser/getsetemit.html

GetSetEmit website



Casino



The screenshot shows a web browser window with the address bar displaying 'web3examples.com/ethereum/casino/'. The page title is 'Bet and Win'. It features three input fields for 'Balance: 0.02239 ETH', 'Bank Balance: 0.01049 ETH', and 'Bet: 0.00105 ETH'. A prominent blue 'Play Now' button is located below the input fields. At the bottom, technical details are listed: 'web3 is present: 1.2.1', 'Ethereum network: Goerli', 'Ethereum address: 0xEA9a7c7cD8d4Dc3acc6f0AaEc1506C8D6041a1c5', 'Contract address: 0x548961aBD98E4C45AD87Fc510A663DEc20007580', and 'Balance: 0.02239 ETH'.

Bet and Win

Balance: ETH

Bank Balance: ETH

Bet: ETH

Play Now

web3 is present: 1.2.1
Ethereum network: Goerli
Ethereum address: [0xEA9a7c7cD8d4Dc3acc6f0AaEc1506C8D6041a1c5](#)
Contract address: [0x548961aBD98E4C45AD87Fc510A663DEc20007580](#)
Balance: 0.02239 ETH

Casino Solidity

```
pragma solidity >=0.5.0 <0.7.0;
contract Casino {
    event Won(bool win) ;
    constructor() public payable { }
    function betAndWin() public payable {
        address payable betPlacer = address(msg.sender);
        uint bet = msg.value;
        uint payout = bet * 2;
        uint balance = getBankBalance();
        require(bet > 0, "No money added to bet.");
        require(payout <= balance, "Not enough money in bank for this bet.");
        bool win = bool (getRandom()%2 == 0);
        if (win)
            betPlacer.transfer(payout);
        emit Won(win);
    }
    function getBankBalance() public view returns(uint256 ret) {
        return address(this).balance;
    }
    function getRandom() public view returns(uint256) {
        return uint256(keccak256(abi.encodePacked(block.difficulty, block.coinbase, block.timestamp)));
    }
}
```

More info

<https://web3examples.com>