|  |
| --- |
| pragma solidity ^0.4.24; |
|  |  |
|  | // ---------------------------------------------------------------------------- |
|  | // Sample token contract |
|  | // |
|  | // Symbol : Symbol\_name |
|  | // Name : Token\_name |
|  | // Total supply : supply\_nom |
|  | // Decimals : Decimals\_nmb |
|  | // Owner Account : Account\_num |
|  | // |
|  | // Enjoy. |
|  | // |
|  | // (c) by naor 2021 |
|  | // ---------------------------------------------------------------------------- |
|  |  |
|  |  |
|  | // ---------------------------------------------------------------------------- |
|  | // Lib: Safe Math |
|  | // ---------------------------------------------------------------------------- |
|  | contract SafeMath { |
|  |  |
|  | function safeAdd(uint a, uint b) public pure returns (uint c) { |
|  | c = a + b; |
|  | require(c >= a); |
|  | } |
|  |  |
|  | function safeSub(uint a, uint b) public pure returns (uint c) { |
|  | require(b <= a); |
|  | c = a - b; |
|  | } |
|  |  |
|  | function safeMul(uint a, uint b) public pure returns (uint c) { |
|  | c = a \* b; |
|  | require(a == 0 || c / a == b); |
|  | } |
|  |  |
|  | function safeDiv(uint a, uint b) public pure returns (uint c) { |
|  | require(b > 0); |
|  | c = a / b; |
|  | } |
|  | } |
|  |  |
|  |  |
|  | /\*\* |
|  | ERC Token Standard #20 Interface |
|  | https://github.com/ethereum/EIPs/blob/master/EIPS/eip-20-token-standard.md |
|  | \*/ |
|  | contract ERC20Interface { |
|  | function totalSupply() public constant returns (uint); |
|  | function balanceOf(address tokenOwner) public constant returns (uint balance); |
|  | function allowance(address tokenOwner, address spender) public constant returns (uint remaining); |
|  | function transfer(address to, uint tokens) public returns (bool success); |
|  | function approve(address spender, uint tokens) public returns (bool success); |
|  | function transferFrom(address from, address to, uint tokens) public returns (bool success); |
|  |  |
|  | event Transfer(address indexed from, address indexed to, uint tokens); |
|  | event Approval(address indexed tokenOwner, address indexed spender, uint tokens); |
|  | } |
|  |  |
|  |  |
|  | /\*\* |
|  | Contract function to receive approval and execute function in one call |
|  |  |
|  | Borrowed from MiniMeToken |
|  | \*/ |
|  | contract ApproveAndCallFallBack { |
|  | function receiveApproval(address from, uint256 tokens, address token, bytes data) public; |
|  | } |
|  |  |
|  | /\*\* |
|  | ERC20 Token, with the addition of symbol, name and decimals and assisted token transfers |
|  | \*/ |
|  | contract Symbol\_name is ERC20Interface, SafeMath { |
|  | string public symbol; |
|  | string public name; |
|  | uint8 public decimals; |
|  | uint public \_totalSupply; |
|  |  |
|  | mapping(address => uint) balances; |
|  | mapping(address => mapping(address => uint)) allowed; |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Constructor |
|  | // ------------------------------------------------------------------------ |
|  | constructor() public { |
|  | symbol = " Symbol\_name"; |
|  | name = " Token\_name"; |
|  | decimals = Decimals\_nmb; |
|  | \_totalSupply = supply\_nom; |
|  | balances[Account\_num] = \_totalSupply; |
|  | emit Transfer(address(0), Account\_num, \_totalSupply); |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Total supply |
|  | // ------------------------------------------------------------------------ |
|  | function totalSupply() public constant returns (uint) { |
|  | return \_totalSupply - balances[address(0)]; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Get the token balance for account tokenOwner |
|  | // ------------------------------------------------------------------------ |
|  | function balanceOf(address tokenOwner) public constant returns (uint balance) { |
|  | return balances[tokenOwner]; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Transfer the balance from token owner's account to to account |
|  | // - Owner's account must have sufficient balance to transfer |
|  | // - 0 value transfers are allowed |
|  | // ------------------------------------------------------------------------ |
|  | function transfer(address to, uint tokens) public returns (bool success) { |
|  | balances[msg.sender] = safeSub(balances[msg.sender], tokens); |
|  | balances[to] = safeAdd(balances[to], tokens); |
|  | emit Transfer(msg.sender, to, tokens); |
|  | return true; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Token owner can approve for spender to transferFrom(...) tokens |
|  | // from the token owner's account |
|  | // |
|  | // https://github.com/ethereum/EIPs/blob/master/EIPS/eip-20-token-standard.md |
|  | // recommends that there are no checks for the approval double-spend attack |
|  | // as this should be implemented in user interfaces |
|  | // ------------------------------------------------------------------------ |
|  | function approve(address spender, uint tokens) public returns (bool success) { |
|  | allowed[msg.sender][spender] = tokens; |
|  | emit Approval(msg.sender, spender, tokens); |
|  | return true; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Transfer tokens from the from account to the to account |
|  | // |
|  | // The calling account must already have sufficient tokens approve(...)-d |
|  | // for spending from the from account and |
|  | // - From account must have sufficient balance to transfer |
|  | // - Spender must have sufficient allowance to transfer |
|  | // - 0 value transfers are allowed |
|  | // ------------------------------------------------------------------------ |
|  | function transferFrom(address from, address to, uint tokens) public returns (bool success) { |
|  | balances[from] = safeSub(balances[from], tokens); |
|  | allowed[from][msg.sender] = safeSub(allowed[from][msg.sender], tokens); |
|  | balances[to] = safeAdd(balances[to], tokens); |
|  | emit Transfer(from, to, tokens); |
|  | return true; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Returns the amount of tokens approved by the owner that can be |
|  | // transferred to the spender's account |
|  | // ------------------------------------------------------------------------ |
|  | function allowance(address tokenOwner, address spender) public constant returns (uint remaining) { |
|  | return allowed[tokenOwner][spender]; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Token owner can approve for spender to transferFrom(...) tokens |
|  | // from the token owner's account. The spender contract function |
|  | // receiveApproval(...) is then executed |
|  | // ------------------------------------------------------------------------ |
|  | function approveAndCall(address spender, uint tokens, bytes data) public returns (bool success) { |
|  | allowed[msg.sender][spender] = tokens; |
|  | emit Approval(msg.sender, spender, tokens); |
|  | ApproveAndCallFallBack(spender).receiveApproval(msg.sender, tokens, this, data); |
|  | return true; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Don't accept ETH |
|  | // ------------------------------------------------------------------------ |
|  | function () public payable { |
|  | revert(); |
|  | } |
|  | } |

[Raw](https://gist.github.com/bajcmartinez/c1cefbb3b1375d037f07b7b779568e42/raw/2ad6fad3aae0ff4e033ccb3ac99212f8a9a81f00/erc20-token.sol)

[**erc20-token.sol**](https://gist.github.com/bajcmartinez/c1cefbb3b1375d037f07b7b779568e42/#file-erc20-token-sol)

|  |  |
| --- | --- |
|  | pragma solidity ^0.4.24; |
|  |  |
|  | // ---------------------------------------------------------------------------- |
|  | // Sample token contract |
|  | // |
|  | // Symbol : {{Token Symbol}} |
|  | // Name : {{Token Name}} |
|  | // Total supply : {{Total Supply}} |
|  | // Decimals : {{Decimals}} |
|  | // Owner Account : {{Owner Account}} |
|  | // |
|  | // Enjoy. |
|  | // |
|  | // (c) by Juan Cruz Martinez 2020. MIT Licence. |
|  | // ---------------------------------------------------------------------------- |
|  |  |
|  |  |
|  | // ---------------------------------------------------------------------------- |
|  | // Lib: Safe Math |
|  | // ---------------------------------------------------------------------------- |
|  | contract SafeMath { |
|  |  |
|  | function safeAdd(uint a, uint b) public pure returns (uint c) { |
|  | c = a + b; |
|  | require(c >= a); |
|  | } |
|  |  |
|  | function safeSub(uint a, uint b) public pure returns (uint c) { |
|  | require(b <= a); |
|  | c = a - b; |
|  | } |
|  |  |
|  | function safeMul(uint a, uint b) public pure returns (uint c) { |
|  | c = a \* b; |
|  | require(a == 0 || c / a == b); |
|  | } |
|  |  |
|  | function safeDiv(uint a, uint b) public pure returns (uint c) { |
|  | require(b > 0); |
|  | c = a / b; |
|  | } |
|  | } |
|  |  |
|  |  |
|  | /\*\* |
|  | ERC Token Standard #20 Interface |
|  | https://github.com/ethereum/EIPs/blob/master/EIPS/eip-20-token-standard.md |
|  | \*/ |
|  | contract ERC20Interface { |
|  | function totalSupply() public constant returns (uint); |
|  | function balanceOf(address tokenOwner) public constant returns (uint balance); |
|  | function allowance(address tokenOwner, address spender) public constant returns (uint remaining); |
|  | function transfer(address to, uint tokens) public returns (bool success); |
|  | function approve(address spender, uint tokens) public returns (bool success); |
|  | function transferFrom(address from, address to, uint tokens) public returns (bool success); |
|  |  |
|  | event Transfer(address indexed from, address indexed to, uint tokens); |
|  | event Approval(address indexed tokenOwner, address indexed spender, uint tokens); |
|  | } |
|  |  |
|  |  |
|  | /\*\* |
|  | Contract function to receive approval and execute function in one call |
|  |  |
|  | Borrowed from MiniMeToken |
|  | \*/ |
|  | contract ApproveAndCallFallBack { |
|  | function receiveApproval(address from, uint256 tokens, address token, bytes data) public; |
|  | } |
|  |  |
|  | /\*\* |
|  | ERC20 Token, with the addition of symbol, name and decimals and assisted token transfers |
|  | \*/ |
|  | contract {{Token Symbol}}Token is ERC20Interface, SafeMath { |
|  | string public symbol; |
|  | string public name; |
|  | uint8 public decimals; |
|  | uint public \_totalSupply; |
|  |  |
|  | mapping(address => uint) balances; |
|  | mapping(address => mapping(address => uint)) allowed; |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Constructor |
|  | // ------------------------------------------------------------------------ |
|  | constructor() public { |
|  | symbol = "{{Token Symbol}}"; |
|  | name = "{{Token Name}}"; |
|  | decimals = {{Decimals}}; |
|  | \_totalSupply = {{Total Supply}}; |
|  | balances[{{Owner Account}}] = \_totalSupply; |
|  | emit Transfer(address(0), {{Owner Account}}, \_totalSupply); |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Total supply |
|  | // ------------------------------------------------------------------------ |
|  | function totalSupply() public constant returns (uint) { |
|  | return \_totalSupply - balances[address(0)]; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Get the token balance for account tokenOwner |
|  | // ------------------------------------------------------------------------ |
|  | function balanceOf(address tokenOwner) public constant returns (uint balance) { |
|  | return balances[tokenOwner]; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Transfer the balance from token owner's account to to account |
|  | // - Owner's account must have sufficient balance to transfer |
|  | // - 0 value transfers are allowed |
|  | // ------------------------------------------------------------------------ |
|  | function transfer(address to, uint tokens) public returns (bool success) { |
|  | balances[msg.sender] = safeSub(balances[msg.sender], tokens); |
|  | balances[to] = safeAdd(balances[to], tokens); |
|  | emit Transfer(msg.sender, to, tokens); |
|  | return true; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Token owner can approve for spender to transferFrom(...) tokens |
|  | // from the token owner's account |
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|  | function approve(address spender, uint tokens) public returns (bool success) { |
|  | allowed[msg.sender][spender] = tokens; |
|  | emit Approval(msg.sender, spender, tokens); |
|  | return true; |
|  | } |
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|  | // ------------------------------------------------------------------------ |
|  | // Transfer tokens from the from account to the to account |
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|  | // The calling account must already have sufficient tokens approve(...)-d |
|  | // for spending from the from account and |
|  | // - From account must have sufficient balance to transfer |
|  | // - Spender must have sufficient allowance to transfer |
|  | // - 0 value transfers are allowed |
|  | // ------------------------------------------------------------------------ |
|  | function transferFrom(address from, address to, uint tokens) public returns (bool success) { |
|  | balances[from] = safeSub(balances[from], tokens); |
|  | allowed[from][msg.sender] = safeSub(allowed[from][msg.sender], tokens); |
|  | balances[to] = safeAdd(balances[to], tokens); |
|  | emit Transfer(from, to, tokens); |
|  | return true; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Returns the amount of tokens approved by the owner that can be |
|  | // transferred to the spender's account |
|  | // ------------------------------------------------------------------------ |
|  | function allowance(address tokenOwner, address spender) public constant returns (uint remaining) { |
|  | return allowed[tokenOwner][spender]; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Token owner can approve for spender to transferFrom(...) tokens |
|  | // from the token owner's account. The spender contract function |
|  | // receiveApproval(...) is then executed |
|  | // ------------------------------------------------------------------------ |
|  | function approveAndCall(address spender, uint tokens, bytes data) public returns (bool success) { |
|  | allowed[msg.sender][spender] = tokens; |
|  | emit Approval(msg.sender, spender, tokens); |
|  | ApproveAndCallFallBack(spender).receiveApproval(msg.sender, tokens, this, data); |
|  | return true; |
|  | } |
|  |  |
|  |  |
|  | // ------------------------------------------------------------------------ |
|  | // Don't accept ETH |
|  | // ------------------------------------------------------------------------ |
|  | function () public payable { |
|  | revert(); |
|  | } |
|  | } |