* condition is to first reduce the spender's all

owance to 0 and set the

* desired value afterwards:

```
1 // SPDX-License-Identifier: AGPL-3.0-or-later
                                                              1 // SPDX-License-Identifier: AGPL-3.0-or-later
 2 pragma solidity 0.7.5;
                                                              2 pragma solidity 0.7.5:
                                                              3 // Only change to generate diff
 4 interface IERC20 {
                                                              5 interface IERC20 {
      function decimals() external view returns (uint
                                                                    function decimals() external view returns (uint
   8);
                                                                8);
 6
                                                                 * @dev Returns the amount of tokens in existenc
      ^{\star} @dev Returns the amount of tokens in existenc
   е.
 8
                                                              9
    function totalSupply() external view returns (uin
                                                             10
                                                                 function totalSupply() external view returns (uin
                                                                t256);
10
                                                             11
                                                             12
11
      * @dev Returns the amount of tokens owned by `ac
                                                                   * @dev Returns the amount of tokens owned by `ac
12
                                                             13
   count`.
                                                                count`.
13
    function balanceOf(address account) external view
                                                                  function balanceOf(address account) external view
   returns (uint256);
                                                                returns (uint256):
15
                                                             17
16
      * @dev Moves `amount` tokens from the caller's a
                                                                   * @dev Moves `amount` tokens from the caller's a
                                                             18
17
                                                                ccount to `recipient`.
   ccount to `recipient`.
18
                                                             19
      * Returns a boolean value indicating whether the
                                                                   * Returns a boolean value indicating whether the
   operation succeeded.
                                                                operation succeeded.
20
                                                             21
      * Emits a {Transfer} event.
                                                                   * Emits a {Transfer} event.
21
                                                             22
                                                             23
23
    function transfer(address recipient, uint256 amou
                                                             24
                                                                 function transfer(address recipient, uint256 amou
   nt) external returns (bool);
                                                                nt) external returns (bool);
24
                                                             25
25
                                                             26
     * @dev Returns the remaining number of tokens th
                                                                  * @dev Returns the remaining number of tokens th
   at `spender` will be
                                                                at `spender` will be
      * allowed to spend on behalf of `owner` through
                                                                   * allowed to spend on behalf of `owner` through
27
                                                             28
    {transferFrom}. This is
                                                                 {transferFrom}. This is
28
      * zero by default.
                                                             29
                                                                   * zero by default.
29
                                                             30
     * This value changes when {approve} or {transfer
                                                                   * This value changes when {approve} or {transfer
   From} are called.
                                                                From} are called.
    function allowance(address owner, address spende
                                                                 function allowance(address owner, address spende
   r) external view returns (uint256):
                                                                r) external view returns (uint256);
33
                                                             34
34
                                                             35
      * @dev Sets `amount` as the allowance of `spende
                                                                   * @dev Sets `amount` as the allowance of `spende
   r` over the caller's tokens.
                                                                r` over the caller's tokens.
36
                                                             37
                                                                 * Returns a boolean value indicating whether the
     * Returns a boolean value indicating whether the
37
                                                             38
   operation succeeded.
                                                                operation succeeded.
38
      ^{\star} IMPORTANT: Beware that changing an allowance \ensuremath{\text{w}}
                                                                 * IMPORTANT: Beware that changing an allowance w
   ith this method brings the risk
                                                                ith this method brings the risk
     * that someone may use both the old and the new
                                                                 * that someone may use both the old and the new
    allowance by unfortunate
                                                                 allowance by unfortunate
      * transaction ordering. One possible solution to
                                                                   * transaction ordering. One possible solution to
   mitigate this race
                                                                mitigate this race
```

* condition is to first reduce the spender's all

owance to 0 and set the

* desired value afterwards:

```
* https://github.com/ethereum/EIPs/issues/20#iss
                                                            45
                                                                 * https://github.com/ethereum/EIPs/issues/20#iss
   uecomment-263524729
                                                                uecomment-263524729
45
                                                             46
      * Emits an {Approval} event.
                                                                   * Emits an {Approval} event.
46
                                                             47
47
                                                             48
     function approve(address spender, uint256 amount)
                                                                  function approve(address spender, uint256 amount)
48
                                                             49
   external returns (bool);
                                                                external returns (bool);
49
                                                             50
50
                                                             51
      * @dev Moves `amount` tokens from `sender` to `r
                                                                   * @dev Moves `amount` tokens from `sender` to `r
51
                                                             52
   ecipient` using the
                                                                ecipient` using the
      ^{\star} allowance mechanism. `amount` is then deducted
                                                             53
                                                                   * allowance mechanism. `amount` is then deducted
52
   from the caller's
                                                                from the caller's
      * allowance.
                                                                   * allowance.
53
                                                             54
54
                                                             55
      * Returns a boolean value indicating whether the
                                                                   * Returns a boolean value indicating whether the
   operation succeeded.
                                                                operation succeeded.
                                                             57
56
      ^{\star} Emits a {Transfer} event.
                                                                   * Emits a {Transfer} event.
57
                                                             58
58
                                                             59
                                                                  function transferFrom(address sender, address rec
     function transferFrom(address sender, address rec
   ipient, uint256 amount) external returns (bool);
                                                                ipient, uint256 amount) external returns (bool);
60
                                                             61
                                                             62
61
      * @dev Emitted when `value` tokens are moved fro
                                                                   * @dev Emitted when `value` tokens are moved fro
                                                             63
62
   m one account (`from`) to
                                                                m one account (`from`) to
     * another (`to`).
                                                             64
                                                                  * another (`to`).
63
64
                                                             65
65
      * Note that `value` may be zero.
                                                             66
                                                                   * Note that `value` may be zero.
66
                                                             67
     event Transfer(address indexed from, address inde
                                                                 event Transfer(address indexed from, address inde
67
                                                             68
   xed to, uint256 value);
                                                                xed to, uint256 value);
68
                                                             69
69
                                                             70
    * @dev Emitted when the allowance of a `spender`
                                                                 * @dev Emitted when the allowance of a `spender`
                                                             71
   for an `owner` is set by
                                                                for an `owner` is set by
     * a call to {approve}. `value` is the new allowa
71
                                                                 * a call to {approve}. `value` is the new allowa
   nce.
                                                                nce.
72
                                                             73
                                                                 event Approval(address indexed owner, address ind
     event Approval(address indexed owner, address ind
   exed spender, uint256 value);
                                                                exed spender, uint256 value);
74 }
                                                             75 }
75
                                                             76
76 interface IStaking {
                                                             77 interface IStaking {
      function stake( uint _amount, address _recipien
                                                                  function stake( uint _amount, address _recipien
   t ) external returns ( bool );
                                                                t ) external returns ( bool );
       function claim( address _recipient ) external;
                                                                    function claim( address _recipient ) external;
                                                             79
78
79 }
                                                             80 }
80
                                                             81
   contract StakingHelper {
                                                             82 contract StakingHelper {
82
                                                             83
83
       event LogStake(address indexed recipient, uint
                                                                    event LogStake(address indexed recipient, uint
    amount);
                                                                 amount);
                                                             85
84
       IStaking public immutable staking;
                                                                    IStaking public immutable staking;
85
                                                             86
       IERC20 public immutable Time;
                                                                    IERC20 public immutable Time;
86
                                                             87
87
                                                             88
       constructor ( address _staking, address _Time )
                                                             89
                                                                    constructor ( address _staking, address _Time )
88
   {
                                                                {
89
           require( _staking != address(0) );
                                                             90
                                                                        require( _staking != address(0) );
90
           staking = IStaking(_staking);
                                                             91
                                                                        staking = IStaking(_staking);
           require( _Time != address(0) );
                                                             92
                                                                        require( _Time != address(0) );
91
           Time = IERC20(_Time);
                                                                        Time = IERC20(_Time);
                                                             93
92
93
       }
                                                             94
                                                                    }
94
       function stake( uint _amount, address recipient
                                                                    function stake( uint _amount, address recipient
                                                             96
                                                                ) external {
   ) external {
          Time.transferFrom( msg.sender, address(thi
                                                                        Time.transferFrom( msg.sender, address(thi
   s), amount);
                                                                s), amount);
```

```
97
           Time.approve( address(staking), _amount );
                                                           98
                                                                       Time.approve( address(staking), _amount );
98
            staking.stake( _amount, recipient );
                                                           99
                                                                       staking.stake( _amount, recipient );
                                                           100
99
            staking.claim( recipient );
                                                                       staking.claim( recipient );
                                                           101
                                                                       emit LogStake(recipient, _amount);
100
            emit LogStake(recipient, _amount);
101
      }
                                                           102
                                                                  }
102 }
                                                           103 }
```

>