Contract: SmartDoge

Compiler Version: v0.6.12+commit.27d51765

Optimization Enabled: No with 2000 runs
Other Settings: default evmVersion

Creator: 0x175375105936D68Dfc50124D8fe0b6aED7982cab

Contract Address: 0x6e6D4ECE35EEd638A1153339F69E543B7ae5F776

Creation TX hash: 0x59b73a70f92974afe9dbd686aa7582257b17d804af0d2ba21507e2f7cf4a8a5b

Solidity Contract Code

```
pragma solidity ^0.6.12;
// SPDX-License-Identifier: Unlicensed
interface IERC20 {
    function totalSupply() external view returns (uint256);
     * @dev Returns the amount of tokens owned by `account`.
    function balanceOf(address account) external view returns (uint256);
     * @dev Moves `amount` tokens from the caller's account to `recipient`.
     st Returns a boolean value indicating whether the operation succeeded.
     * Emits a {Transfer} event.
    function transfer(address recipient, uint256 amount) external returns (bool);
     * @dev Returns the remaining number of tokens that `spender` will be
     * allowed to spend on behalf of `owner` through {transferFrom}. This is
     * This value changes when {approve} or {transferFrom} are called.
    function allowance(address owner, address spender) external view returns (uint256);
```

```
st 	ilde{	text{M}}dev Sets `amount` as the allowance of `spender` over the caller's tokens.
  st Returns a boolean value indicating whether the operation succeeded.
  * IMPORTANT: Beware that changing an allowance with this method brings the risk
  * that someone may use both the old and the new allowance by unfortunate
  * transaction ordering. One possible solution to mitigate this race
  * condition is to first reduce the spender's allowance to 0 and set the
  * https://github.com/ethereum/EIPs/issues/20#issuecomment-263524729
  * Emits an {Approval} event.
 function approve(address spender, uint256 amount) external returns (bool);
  * @dev Moves `amount` tokens from `sender` to `recipient` using the
  * allowance mechanism. `amount` is then deducted from the caller's
  * allowance.
  * Returns a boolean value indicating whether the operation succeeded.
  * Emits a {Transfer} event.
 function transferFrom(
     address sender,
     address recipient,
     uint256 amount
 ) external returns (bool);
  * @dev Emitted when `value` tokens are moved from one account (`from`) to
  * another (`to`).
  * Note that `value` may be zero.
 event Transfer(address indexed from, address indexed to, uint256 value);
  * @dev Emitted when the allowance of a `spender` for an `owner` is set by
  * a call to {approve}. `value` is the new allowance.
 event Approval(address indexed owner, address indexed spender, uint256 value);
@dev Wrappers over Solidity's arithmetic operations with added overflow
checks.
```

```
* Arithmetic operations in Solidity wrap on overflow. This can easily result
* in bugs, because programmers usually assume that an overflow raises an
 * error, which is the standard behavior in high level programming languages.
 * `SafeMath` restores this intuition by reverting the transaction when an
 * operation overflows.
 * Using this library instead of the unchecked operations eliminates an entire
 * class of bugs, so it's recommended to use it always.
library SafeMath {
     * @dev Returns the addition of two unsigned integers, reverting on
     * overflow.
     * Counterpart to Solidity's `+` operator.
     * Requirements:
     * - Addition cannot overflow.
    function add(uint256 a, uint256 b) internal pure returns (uint256) {
        uint256 c = a + b;
        require(c >= a, "SafeMath: addition overflow");
        return c;
     * @dev Returns the subtraction of two unsigned integers, reverting on
     * Counterpart to Solidity's `-` operator.
     * Requirements:
     * - Subtraction cannot overflow.
    function sub(uint256 a, uint256 b) internal pure returns (uint256) {
        return sub(a, b, "SafeMath: subtraction overflow");
     * @dev Returns the subtraction of two unsigned integers, reverting with custom message
     * overflow (when the result is negative).
     * Counterpart to Solidity's `-` operator.
```

```
* Requirements:
* - Subtraction cannot overflow.
function sub(
   uint256 a,
   uint256 b,
   string memory errorMessage
) internal pure returns (uint256) {
   require(b <= a, errorMessage);</pre>
   uint256 c = a - b;
   return c;
* @dev Returns the multiplication of two unsigned integers, reverting on
* overflow.
 * Counterpart to Solidity's `*` operator.
* Requirements:
* - Multiplication cannot overflow.
function mul(uint256 a, uint256 b) internal pure returns (uint256) {
   // Gas optimization: this is cheaper than requiring 'a' not being zero, but the
   // See: https://github.com/OpenZeppelin/openzeppelin-contracts/pull/522
   if (a == 0) {
       return 0;
   uint256 c = a * b;
   require(c / a == b, "SafeMath: multiplication overflow");
   return c;
* @dev Returns the integer division of two unsigned integers. Reverts on
* Counterpart to Solidity's `/` operator. Note: this function uses a
 * `revert` opcode (which leaves remaining gas untouched) while Solidity
* uses an invalid opcode to revert (consuming all remaining gas).
 * Requirements:
* - The divisor cannot be zero.
```

```
function div(uint256 a, uint256 b) internal pure returns (uint256) {
       return div(a, b, "SafeMath: division by zero");
    * @dev Returns the integer division of two unsigned integers. Reverts with custom
    * division by zero. The result is rounded towards zero.
    * Counterpart to Solidity's `/` operator. Note: this function uses a
    * `revert` opcode (which leaves remaining gas untouched) while Solidity
    * uses an invalid opcode to revert (consuming all remaining gas).
    * Requirements:
    * - The divisor cannot be zero.
   function div(
       uint256 a,
       uint256 b,
       string memory errorMessage
   ) internal pure returns (uint256) {
       require(b > 0, errorMessage);
       uint256 c = a / b;
       return c;
    * @dev Returns the remainder of dividing two unsigned integers. (unsigned integer
modulo),
    * Reverts when dividing by zero.
    * Counterpart to Solidity's `%` operator. This function uses a `revert`
    * opcode (which leaves remaining gas untouched) while Solidity uses an
    * invalid opcode to revert (consuming all remaining gas).
    * Requirements:
    * - The divisor cannot be zero.
   function mod(uint256 a, uint256 b) internal pure returns (uint256) {
       return mod(a, b, "SafeMath: modulo by zero");
    * @dev Returns the remainder of dividing two unsigned integers. (unsigned integer
modulo),
```

```
* Reverts with custom message when dividing by zero.
     * Counterpart to Solidity's `%` operator. This function uses a `revert`
     * opcode (which leaves remaining gas untouched) while Solidity uses an
     * invalid opcode to revert (consuming all remaining gas).
     * Requirements:
     * - The divisor cannot be zero.
    function mod(
       uint256 a,
       uint256 b,
       string memory errorMessage
    ) internal pure returns (uint256) {
       require(b != 0, errorMessage);
       return a % b;
abstract contract Context {
   function _msgSender() internal view virtual returns (address payable) {
        return msg.sender;
   function _msgData() internal view virtual returns (bytes memory) {
        this; // silence state mutability warning without generating bytecode - see
https://github.com/ethereum/solidity/issues/2691
       return msg.data;
   }
* @dev Collection of functions related to the address type
library Address {
     * @dev Returns true if `account` is a contract.
     * [IMPORTANT]
     * It is unsafe to assume that an address for which this function returns
     * false is an externally-owned account (EOA) and not a contract.
     * Among others, `isContract` will return false for the following
     * types of addresses:
     * - an externally-owned account
     * - a contract in construction
     * - an address where a contract will be created
```

```
* - an address where a contract lived, but was destroyed
    function isContract(address account) internal view returns (bool) {
       // According to EIP-1052, 0x0 is the value returned for not-yet created accounts
       // and 0xc5d2460186f7233c927e7db2dcc703c0e500b653ca82273b7bfad8045d85a470 is returned
       // for accounts without code, i.e. `keccak256('')`
       bytes32 codehash;
       bytes32 accountHash =
0xc5d2460186f7233c927e7db2dcc703c0e500b653ca82273b7bfad8045d85a470;
       // solhint-disable-next-line no-inline-assembly
       assembly {
           codehash := extcodehash(account)
       return (codehash != accountHash && codehash != 0x0);
    * @dev Replacement for Solidity's `transfer`: sends `amount` wei to
    * `recipient`, forwarding all available gas and reverting on errors.
     * https://eips.ethereum.org/EIPS/eip-1884[EIP1884] increases the gas cost
    * of certain opcodes, possibly making contracts go over the 2300 gas limit
    * imposed by `transfer`, making them unable to receive funds via
    * `transfer`. {sendValue} removes this limitation.
     * https://diligence.consensys.net/posts/2019/09/stop-using-soliditys-transfer-now/[Learn
    * IMPORTANT: because control is transferred to `recipient`, care must be
    * taken to not create reentrancy vulnerabilities. Consider using
    * {ReentrancyGuard} or the
checks-effects-interactions-pattern[checks-effects-interactions pattern].
    function sendValue(address payable recipient, uint256 amount) internal {
       require(address(this).balance >= amount, "Address: insufficient balance");
       // solhint-disable-next-line avoid-low-level-calls, avoid-call-value
       (bool success, ) = recipient.call{value: amount}("");
       require(success, "Address: unable to send value, recipient may have reverted");
    * @dev Performs a Solidity function call using a low level `call`. A
    * plain`call` is an unsafe replacement for a function call: use this
    * function instead.
     * If `target` reverts with a revert reason, it is bubbled up by this
     * function (like regular Solidity function calls).
```

```
st Returns the raw returned data. To convert to the expected return value,
    * use https://solidity.readthedocs.io/en/latest/units-and-global-
variables.html?highlight=abi.decode#abi-encoding-and-decoding-functions[`abi.decode`].
    * Requirements:
    * - `target` must be a contract.
    * - calling `target` with `data` must not revert.
    * Available since v3.1.
   function functionCall(address target, bytes memory data) internal returns (bytes memory)
       return functionCall(target, data, "Address: low-level call failed");
    * @dev Same as {xref-Address-functionCall-address-bytes-}[`functionCall`], but with
    * `errorMessage` as a fallback revert reason when `target` reverts.
    * Available since v3.1.
   function functionCall(
       address target,
       bytes memory data,
       string memory errorMessage
   ) internal returns (bytes memory) {
       return _functionCallWithValue(target, data, 0, errorMessage);
    * @dev Same as {xref-Address-functionCall-address-bytes-}[`functionCall`],
    * but also transferring `value` wei to `target`.
    * Requirements:
    * - the calling contract must have an ETH balance of at least `value`.
    * - the called Solidity function must be `payable`.
    * Available since v3.1.
   function functionCallWithValue(
       address target,
       bytes memory data,
       uint256 value
   ) internal returns (bytes memory) {
       return functionCallWithValue(target, data, value, "Address: low-level call with value
failed");
```

```
* @dev Same as {xref-Address-functionCallWithValue-address-bytes-
uint256-}[`functionCallWithValue`], but
     * with `errorMessage` as a fallback revert reason when `target` reverts.
    * Available since v3.1.
   function functionCallWithValue(
       address target,
       bytes memory data,
       uint256 value,
       string memory errorMessage
   ) internal returns (bytes memory) {
       require(address(this).balance >= value, "Address: insufficient balance for call");
       return _functionCallWithValue(target, data, value, errorMessage);
   function _functionCallWithValue(
       address target,
       bytes memory data,
       uint256 weiValue,
       string memory errorMessage
   ) private returns (bytes memory) {
       require(isContract(target), "Address: call to non-contract");
       // solhint-disable-next-line avoid-low-level-calls
       (bool success, bytes memory returndata) = target.call{value: weiValue}(data);
       if (success) {
           return returndata;
       } else {
           // Look for revert reason and bubble it up if present
           if (returndata.length > 0) {
               // The easiest way to bubble the revert reason is using memory via assembly
               // solhint-disable-next-line no-inline-assembly
               assembly {
                   let returndata_size := mload(returndata)
                    revert(add(32, returndata), returndata_size)
           } else {
                revert(errorMessage);
  @dev Contract module which provides a basic access control mechanism, where
 * there is an account (an owner) that can be granted exclusive access to
```

```
* specific functions.
* By default, the owner account will be the one that deploys the contract. This
* can later be changed with {transferOwnership}.
* This module is used through inheritance. It will make available the modifier
* `onlyOwner`, which can be applied to your functions to restrict their use to
contract Ownable is Context {
   address private _owner;
   address private _previousOwner;
   uint256 private _lockTime;
   event OwnershipTransferred(address indexed previousOwner, address indexed newOwner);
    * @dev Initializes the contract setting the deployer as the initial owner.
   constructor() internal {
       address msgSender = _msgSender();
       _owner = msgSender;
       emit OwnershipTransferred(address(0), msgSender);
    * @dev Returns the address of the current owner.
   function owner() public view returns (address) {
       return _owner;
    * @dev Throws if called by any account other than the owner.
   modifier onlyOwner() {
       require(_owner == _msgSender(), "Ownable: caller is not the owner");
       _;
    * @dev Leaves the contract without owner. It will not be possible to call
    * `onlyOwner` functions anymore. Can only be called by the current owner.
    * NOTE: Renouncing ownership will leave the contract without an owner,
    * thereby removing any functionality that is only available to the owner.
   function renounceOwnership() public virtual onlyOwner {
       emit OwnershipTransferred( owner, address(0));
        owner = address(0);
```

```
}
     * @dev Transfers ownership of the contract to a new account (`newOwner`).
     * Can only be called by the current owner.
    function transferOwnership(address newOwner) public virtual onlyOwner {
        require(newOwner != address(0), "Ownable: new owner is the zero address");
        emit OwnershipTransferred( owner, newOwner);
       _owner = newOwner;
    function geUnlockTime() public view returns (uint256) {
        return _lockTime;
   //Locks the contract for owner for the amount of time provided
    function lock(uint256 time) public virtual onlyOwner {
       _previousOwner = _owner;
       owner = address(0);
       lockTime = now + time;
       emit OwnershipTransferred( owner, address(0));
   //Unlocks the contract for owner when lockTime is exceeds
   function unlock() public virtual {
        require(_previousOwner == msg.sender, "You don't have permission to unlock");
        require(now > _lockTime, "Contract is locked until 7 days");
        emit OwnershipTransferred(_owner, _previousOwner);
        _owner = _previousOwner;
    }
// pragma solidity >=0.5.0;
interface IUniswapV2Factory {
   event PairCreated(address indexed token0, address indexed token1, address pair, uint256);
    function feeTo() external view returns (address);
    function feeToSetter() external view returns (address);
    function getPair(address tokenA, address tokenB) external view returns (address pair);
    function allPairs(uint256) external view returns (address pair);
   function allPairsLength() external view returns (uint256);
    function createPair(address tokenA, address tokenB) external returns (address pair);
```

```
function setFeeTo(address) external;
    function setFeeToSetter(address) external;
// pragma solidity >=0.5.0;
interface IUniswapV2Pair {
    event Approval(address indexed owner, address indexed spender, uint256 value);
    event Transfer(address indexed from, address indexed to, uint256 value);
    function name() external pure returns (string memory);
    function symbol() external pure returns (string memory);
    function decimals() external pure returns (uint8);
    function totalSupply() external view returns (uint256);
    function balanceOf(address owner) external view returns (uint256);
    function allowance(address owner, address spender) external view returns (uint256);
    function approve(address spender, uint256 value) external returns (bool);
    function transfer(address to, uint256 value) external returns (bool);
    function transferFrom(
        address from,
       address to,
       uint256 value
    ) external returns (bool);
    function DOMAIN SEPARATOR() external view returns (bytes32);
    function PERMIT_TYPEHASH() external pure returns (bytes32);
    function nonces(address owner) external view returns (uint256);
    function permit(
        address owner,
        address spender,
       uint256 value,
        uint256 deadline,
        uint8 v,
        bytes32 r,
        bytes32 s
    ) external;
   event Mint(address indexed sender, uint256 amount0, uint256 amount1);
```

```
event Burn(address indexed sender, uint256 amount0, uint256 amount1, address indexed to);
event Swap(
   address indexed sender,
   uint256 amount0In,
   uint256 amount1In,
   uint256 amount00ut,
   uint256 amount10ut,
   address indexed to
);
event Sync(uint112 reserve0, uint112 reserve1);
function MINIMUM_LIQUIDITY() external pure returns (uint256);
function factory() external view returns (address);
function token0() external view returns (address);
function token1() external view returns (address);
function getReserves()
   external
   view
   returns (
       uint112 reserve0,
       uint112 reserve1,
       uint32 blockTimestampLast
    );
function priceOCumulativeLast() external view returns (uint256);
function price1CumulativeLast() external view returns (uint256);
function kLast() external view returns (uint256);
function mint(address to) external returns (uint256 liquidity);
function burn(address to) external returns (uint256 amount0, uint256 amount1);
function swap(
   uint256 amount00ut,
   uint256 amount10ut,
   address to,
   bytes calldata data
) external;
function skim(address to) external;
function sync() external;
function initialize(address, address) external;
```

```
// pragma solidity >=0.6.2;
interface IUniswapV2Router01 {
    function factory() external pure returns (address);
    function WETH() external pure returns (address);
    function addLiquidity(
        address tokenA,
        address tokenB,
        uint256 amountADesired,
        uint256 amountBDesired,
        uint256 amountAMin,
        uint256 amountBMin,
        address to,
        uint256 deadline
        external
        returns (
            uint256 amountA,
            uint256 amountB,
            uint256 liquidity
        );
    function addLiquidityETH(
        address token,
        uint256 amountTokenDesired,
        uint256 amountTokenMin,
        uint256 amountETHMin,
        address to,
        uint256 deadline
        external
        payable
        returns (
            uint256 amountToken,
            uint256 amountETH,
            uint256 liquidity
        );
    function removeLiquidity(
        address tokenA,
        address tokenB,
        uint256 liquidity,
        uint256 amountAMin,
        uint256 amountBMin,
        address to,
        uint256 deadline
```

```
) external returns (uint256 amountA, uint256 amountB);
function removeLiquidityETH(
    address token,
   uint256 liquidity,
    uint256 amountTokenMin,
    uint256 amountETHMin,
    address to,
    uint256 deadline
) external returns (uint256 amountToken, uint256 amountETH);
function removeLiquidityWithPermit(
    address tokenA,
   address tokenB,
   uint256 liquidity,
    uint256 amountAMin,
   uint256 amountBMin,
   address to,
    uint256 deadline,
   bool approveMax,
    uint8 v,
    bytes32 r,
    bytes32 s
) external returns (uint256 amountA, uint256 amountB);
function removeLiquidityETHWithPermit(
    address token,
    uint256 liquidity,
    uint256 amountTokenMin,
   uint256 amountETHMin,
    address to,
    uint256 deadline,
    bool approveMax,
    uint8 v,
    bytes32 r,
    bytes32 s
) external returns (uint256 amountToken, uint256 amountETH);
function swapExactTokensForTokens(
   uint256 amountIn,
    uint256 amountOutMin,
    address[] calldata path,
    address to,
    uint256 deadline
) external returns (uint256[] memory amounts);
function swapTokensForExactTokens(
    uint256 amountOut,
    uint256 amountInMax,
    address[] calldata path,
```

```
address to,
    uint256 deadline
) external returns (uint256[] memory amounts);
function swapExactETHForTokens(
    uint256 amountOutMin,
    address[] calldata path,
    address to,
    uint256 deadline
) external payable returns (uint256[] memory amounts);
function swapTokensForExactETH(
    uint256 amountOut,
    uint256 amountInMax,
    address[] calldata path,
    address to,
   uint256 deadline
) external returns (uint256[] memory amounts);
function swapExactTokensForETH(
    uint256 amountIn,
    uint256 amountOutMin,
    address[] calldata path,
    address to,
   uint256 deadline
) external returns (uint256[] memory amounts);
function swapETHForExactTokens(
    uint256 amountOut,
    address[] calldata path,
    address to,
    uint256 deadline
) external payable returns (uint256[] memory amounts);
function quote(
    uint256 amountA,
    uint256 reserveA,
   uint256 reserveB
) external pure returns (uint256 amountB);
function getAmountOut(
    uint256 amountIn,
   uint256 reserveIn,
    uint256 reserveOut
) external pure returns (uint256 amountOut);
function getAmountIn(
    uint256 amountOut,
    uint256 reserveIn,
    uint256 reserveOut
```

```
) external pure returns (uint256 amountIn);
    function getAmountsOut(uint256 amountIn, address[] calldata path) external view returns
(uint256[] memory amounts);
    function getAmountsIn(uint256 amountOut, address[] calldata path) external view returns
(uint256[] memory amounts);
// pragma solidity >=0.6.2;
interface IUniswapV2Router02 is IUniswapV2Router01 {
    function removeLiquidityETHSupportingFeeOnTransferTokens(
        address token,
        uint256 liquidity,
        uint256 amountTokenMin,
       uint256 amountETHMin,
        address to,
        uint256 deadline
    ) external returns (uint256 amountETH);
    function removeLiquidityETHWithPermitSupportingFeeOnTransferTokens(
        address token,
        uint256 liquidity,
        uint256 amountTokenMin,
        uint256 amountETHMin,
        address to,
       uint256 deadline,
        bool approveMax,
        uint8 v,
        bytes32 r,
        bytes32 s
    ) external returns (uint256 amountETH);
    function swapExactTokensForTokensSupportingFeeOnTransferTokens(
        uint256 amountIn,
        uint256 amountOutMin,
        address[] calldata path,
        address to.
       uint256 deadline
    ) external;
    function swapExactETHForTokensSupportingFeeOnTransferTokens(
        uint256 amountOutMin,
        address[] calldata path,
        address to,
        uint256 deadline
    ) external payable;
    function swapExactTokensForETHSupportingFeeOnTransferTokens(
```

```
uint256 amountIn,
        uint256 amountOutMin,
        address[] calldata path,
        address to,
        uint256 deadline
    ) external;
contract SmartDoge is Context, IERC20, Ownable {
   using SafeMath for uint256;
   using Address for address;
   mapping(address => uint256) private rOwned;
   mapping(address => uint256) private _tOwned;
   mapping(address => mapping(address => uint256)) private _allowances;
   mapping(address => bool) private _isExcludedFromFee;
   mapping(address => bool) private _isExcluded;
   address[] private _excluded;
   uint256 private constant MAX = ~uint256(0);
   uint256 private _tTotal = 1000000000 * 10**6 * 10**9;
   uint256 private _rTotal = (MAX - (MAX % _tTotal));
   uint256 private tFeeTotal;
    string private name = "SmartDoge";
    string private _symbol = "SMART";
   uint8 private _decimals = 9;
   uint256 public _taxFee = 5;
   uint256 private _previousTaxFee = _taxFee;
   uint256 public liquidityFee = 5;
   uint256 private previousLiquidityFee = liquidityFee;
    IUniswapV2Router02 public immutable uniswapV2Router;
    address public immutable uniswapV2Pair;
   bool inSwapAndLiquify;
   bool public swapAndLiquifyEnabled = true;
   uint256 public maxTxAmount = 5000000 * 10**6 * 10**9;
   uint256 private numTokensSellToAddToLiquidity = 500000 * 10**6 * 10**9;
    event MinTokensBeforeSwapUpdated(uint256 minTokensBeforeSwap);
    event SwapAndLiquifyEnabledUpdated(bool enabled);
    event SwapAndLiquify(uint256 tokensSwapped, uint256 ethReceived, uint256
tokensIntoLiqudity);
```

```
modifier lockTheSwap() {
        inSwapAndLiquify = true;
        inSwapAndLiquify = false;
    constructor() public {
       _rOwned[_msgSender()] = _rTotal;
        IUniswapV2Router02 uniswapV2Router =
IUniswapV2Router02(0x5d0bF8d8c8b054080E2131D8b260a5c6959411B8);
        // Create a uniswap pair for this new token
        uniswapV2Pair = IUniswapV2Factory( uniswapV2Router.factory()).createPair(
            address(this),
            _uniswapV2Router.WETH()
        );
        // set the rest of the contract variables
        uniswapV2Router = _uniswapV2Router;
       //exclude owner and this contract from fee
        isExcludedFromFee[owner()] = true;
        _isExcludedFromFee[address(this)] = true;
        emit Transfer(address(0), _msgSender(), _tTotal);
    function name() public view returns (string memory) {
        return _name;
    function symbol() public view returns (string memory) {
        return _symbol;
    function decimals() public view returns (uint8) {
        return _decimals;
    function totalSupply() public view override returns (uint256) {
        return _tTotal;
    function balanceOf(address account) public view override returns (uint256) {
        if (_isExcluded[account]) return _tOwned[account];
        return tokenFromReflection(_rOwned[account]);
    function transfer(address recipient, uint256 amount) public override returns (bool) {
        transfer(_msgSender(), recipient, amount);
```

```
return true;
    function allowance(address owner, address spender) public view override returns (uint256)
        return _allowances[owner][spender];
    function approve(address spender, uint256 amount) public override returns (bool) {
       _approve(_msgSender(), spender, amount);
       return true;
    function transferFrom(
       address sender,
       address recipient,
       uint256 amount
    ) public override returns (bool) {
       _transfer(sender, recipient, amount);
        approve(
            sender,
            _msgSender(),
            _allowances[sender][_msgSender()].sub(amount, "ERC20: transfer amount exceeds
allowance")
        );
       return true;
    function increaseAllowance(address spender, uint256 addedValue) public virtual returns
(bool) {
       _approve(_msgSender(), spender, _allowances[_msgSender()][spender].add(addedValue));
       return true;
    function decreaseAllowance(address spender, uint256 subtractedValue) public virtual
returns (bool) {
       approve(
           _msgSender(),
           allowances[ msgSender()][spender].sub(subtractedValue, "ERC20: decreased
allowance below zero")
        );
       return true;
   function isExcludedFromReward(address account) public view returns (bool) {
        return isExcluded[account];
   function totalFees() public view returns (uint256) {
```

```
return _tFeeTotal;
    function deliver(uint256 tAmount) public {
        address sender = _msgSender();
        require(!_isExcluded[sender], "Excluded addresses cannot call this function");
        (uint256 rAmount, , , , , ) = _getValues(tAmount);
       rOwned[sender] = rOwned[sender].sub(rAmount);
       _rTotal = _rTotal.sub(rAmount);
       _tFeeTotal = _tFeeTotal.add(tAmount);
    function reflectionFromToken(uint256 tAmount, bool deductTransferFee) public view returns
(uint256) {
       require(tAmount <= tTotal, "Amount must be less than supply");</pre>
        if (!deductTransferFee) {
            (uint256 rAmount, , , , , ) = _getValues(tAmount);
            return rAmount;
        } else {
            (, uint256 rTransferAmount, , , , ) = _getValues(tAmount);
            return rTransferAmount;
    function tokenFromReflection(uint256 rAmount) public view returns (uint256) {
        require(rAmount <= _rTotal, "Amount must be less than total reflections");
       uint256 currentRate = getRate();
       return rAmount.div(currentRate);
    function excludeFromReward(address account) public onlyOwner {
        // require(account != 0x7a250d5630B4cF539739dF2C5dAcb4c659F2488D, 'We can not exclude
Uniswap router.');
       require(!_isExcluded[account], "Account is already excluded");
        if ( rOwned[account] > 0) {
            _tOwned[account] = tokenFromReflection(_rOwned[account]);
        isExcluded[account] = true;
       _excluded.push(account);
    function includeInReward(address account) external onlyOwner {
        require(_isExcluded[account], "Account is already excluded");
        for (uint256 i = 0; i < excluded.length; i++) {</pre>
            if (_excluded[i] == account) {
                _excluded[i] = _excluded[_excluded.length - 1];
                tOwned[account] = 0;
                _isExcluded[account] = false;
                _excluded.pop();
                break;
```

```
}
function transferBothExcluded(
    address sender,
   address recipient,
   uint256 tAmount
) private {
        uint256 rAmount,
       uint256 rTransferAmount,
       uint256 rFee,
       uint256 tTransferAmount,
       uint256 tFee,
        uint256 tLiquidity
    ) = _getValues(tAmount);
   tOwned[sender] = tOwned[sender].sub(tAmount);
   _rOwned[sender] = _rOwned[sender].sub(rAmount);
   _tOwned[recipient] = _tOwned[recipient].add(tTransferAmount);
   _rOwned[recipient] = _rOwned[recipient].add(rTransferAmount);
   _takeLiquidity(tLiquidity);
   _reflectFee(rFee, tFee);
   emit Transfer(sender, recipient, tTransferAmount);
function excludeFromFee(address account) public onlyOwner {
   _isExcludedFromFee[account] = true;
function includeInFee(address account) public onlyOwner {
    _isExcludedFromFee[account] = false;
function setTaxFeePercent(uint256 taxFee) external onlyOwner {
    _taxFee = taxFee;
function setLiquidityFeePercent(uint256 liquidityFee) external onlyOwner {
   liquidityFee = liquidityFee;
function setMaxTxPercent(uint256 maxTxPercent) external onlyOwner {
   maxTxAmount = tTotal.mul(maxTxPercent).div(10**2);
function setSwapAndLiquifyEnabled(bool _enabled) public onlyOwner {
    swapAndLiquifyEnabled = _enabled;
    emit SwapAndLiquifyEnabledUpdated(_enabled);
```

```
//to recieve ETH from uniswapV2Router when swaping
   receive() external payable {}
   function reflectFee(uint256 rFee, uint256 tFee) private {
       _rTotal = _rTotal.sub(rFee);
       _tFeeTotal = _tFeeTotal.add(tFee);
   function _getValues(uint256 tAmount)
       private
       view
       returns (
           uint256,
           uint256,
           uint256,
           uint256,
           uint256,
           uint256
        (uint256 tTransferAmount, uint256 tFee, uint256 tLiquidity) = _getTValues(tAmount);
        (uint256 rAmount, uint256 rTransferAmount, uint256 rFee) = _getRValues(tAmount, tFee,
tLiquidity, _getRate());
       return (rAmount, rTransferAmount, rFee, tTransferAmount, tFee, tLiquidity);
    function _getTValues(uint256 tAmount)
       private
       view
       returns (
           uint256,
           uint256,
           uint256
       uint256 tFee = calculateTaxFee(tAmount);
       uint256 tLiquidity = calculateLiquidityFee(tAmount);
       uint256 tTransferAmount = tAmount.sub(tFee).sub(tLiquidity);
       return (tTransferAmount, tFee, tLiquidity);
   function _getRValues(
       uint256 tAmount,
       uint256 tFee,
       uint256 tLiquidity,
       uint256 currentRate
       private
        pure
```

```
returns (
           uint256,
           uint256,
           uint256
       uint256 rAmount = tAmount.mul(currentRate);
       uint256 rFee = tFee.mul(currentRate);
       uint256 rLiquidity = tLiquidity.mul(currentRate);
       uint256 rTransferAmount = rAmount.sub(rFee).sub(rLiquidity);
       return (rAmount, rTransferAmount, rFee);
   function _getRate() private view returns (uint256) {
       (uint256 rSupply, uint256 tSupply) = _getCurrentSupply();
       return rSupply.div(tSupply);
   function _getCurrentSupply() private view returns (uint256, uint256) {
       uint256 rSupply = _rTotal;
       uint256 tSupply = tTotal;
       for (uint256 i = 0; i < _excluded.length; i++) {</pre>
           if (_rOwned[_excluded[i]] > rSupply || _tOwned[_excluded[i]] > tSupply) return
(_rTotal, _tTotal);
           rSupply = rSupply.sub( rOwned[ excluded[i]]);
           tSupply = tSupply.sub(_tOwned[_excluded[i]]);
       if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);</pre>
       return (rSupply, tSupply);
   function takeLiquidity(uint256 tLiquidity) private {
       uint256 currentRate = _getRate();
       uint256 rLiquidity = tLiquidity.mul(currentRate);
       _rOwned[address(this)] = _rOwned[address(this)].add(rLiquidity);
       if (_isExcluded[address(this)]) _tOwned[address(this)] =
tOwned[address(this)].add(tLiquidity);
   function calculateTaxFee(uint256 amount) private view returns (uint256) {
       return _amount.mul(_taxFee).div(10**2);
   function calculateLiquidityFee(uint256 amount) private view returns (uint256) {
       return _amount.mul(_liquidityFee).div(10**2);
   function removeAllFee() private {
       if (_taxFee == 0 && _liquidityFee == 0) return;
```

```
_previousTaxFee = _taxFee;
   _previousLiquidityFee = _liquidityFee;
   _taxFee = 0;
   _liquidityFee = 0;
function restoreAllFee() private {
   _taxFee = _previousTaxFee;
   _liquidityFee = _previousLiquidityFee;
function isExcludedFromFee(address account) public view returns (bool) {
   return _isExcludedFromFee[account];
function _approve(
   address owner,
   address spender,
   uint256 amount
) private {
    require(owner != address(0), "ERC20: approve from the zero address");
    require(spender != address(0), "ERC20: approve to the zero address");
   _allowances[owner][spender] = amount;
   emit Approval(owner, spender, amount);
function _transfer(
   address from,
   address to,
   uint256 amount
) private {
   require(from != address(0), "ERC20: transfer from the zero address");
    require(to != address(0), "ERC20: transfer to the zero address");
    require(amount > 0, "Transfer amount must be greater than zero");
    if (from != owner() && to != owner())
        require(amount <= _maxTxAmount, "Transfer amount exceeds the maxTxAmount.");</pre>
   // is the token balance of this contract address over the min number of
   // tokens that we need to initiate a swap + liquidity lock?
   // also, don't get caught in a circular liquidity event.
   // also, don't swap & liquify if sender is uniswap pair.
   uint256 contractTokenBalance = balanceOf(address(this));
   if (contractTokenBalance >= _maxTxAmount) {
        contractTokenBalance = maxTxAmount;
    bool overMinTokenBalance = contractTokenBalance >= numTokensSellToAddToLiquidity;
```

```
if (overMinTokenBalance && !inSwapAndLiquify && from != uniswapV2Pair &&
swapAndLiquifyEnabled) {
            contractTokenBalance = numTokensSellToAddToLiquidity;
            //add liquidity
            swapAndLiquify(contractTokenBalance);
        //indicates if fee should be deducted from transfer
        bool takeFee = true;
        //if any account belongs to isExcludedFromFee account then remove the fee
        if (_isExcludedFromFee[from] || _isExcludedFromFee[to]) {
            takeFee = false;
        //transfer amount, it will take tax, burn, liquidity fee
       _tokenTransfer(from, to, amount, takeFee);
    function swapAndLiquify(uint256 contractTokenBalance) private lockTheSwap {
        // split the contract balance into halves
        uint256 half = contractTokenBalance.div(2);
        uint256 otherHalf = contractTokenBalance.sub(half);
       // capture the contract's current ETH balance.
       // this is so that we can capture exactly the amount of ETH that the
       // swap creates, and not make the liquidity event include any ETH that
        // has been manually sent to the contract
        uint256 initialBalance = address(this).balance;
        // swap tokens for ETH
        swapTokensForEth(half); // <- this breaks the ETH -> HATE swap when swap+liquify is
        // how much ETH did we just swap into?
        uint256 newBalance = address(this).balance.sub(initialBalance);
       // add liquidity to uniswap
        addLiquidity(otherHalf, newBalance);
        emit SwapAndLiquify(half, newBalance, otherHalf);
    function swapTokensForEth(uint256 tokenAmount) private {
        address[] memory path = new address[](2);
        path[0] = address(this);
        path[1] = uniswapV2Router.WETH();
        _approve(address(this), address(uniswapV2Router), tokenAmount);
```

```
uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
        tokenAmount,
        0, // accept any amount of ETH
        path,
        address(this),
        block.timestamp
    );
}
function addLiquidity(uint256 tokenAmount, uint256 ethAmount) private {
   // approve token transfer to cover all possible scenarios
   _approve(address(this), address(uniswapV2Router), tokenAmount);
   uniswapV2Router.addLiquidityETH{value: ethAmount}(
        address(this),
        tokenAmount,
        0, // slippage is unavoidable
        0, // slippage is unavoidable
        owner(),
       block.timestamp
    );
}
//this method is responsible for taking all fee, if takeFee is true
function _tokenTransfer(
   address sender,
   address recipient,
   uint256 amount,
   bool takeFee
) private {
   if (!takeFee) removeAllFee();
    if (_isExcluded[sender] && !_isExcluded[recipient]) {
        _transferFromExcluded(sender, recipient, amount);
    } else if (!_isExcluded[sender] && _isExcluded[recipient]) {
        _transferToExcluded(sender, recipient, amount);
    } else if (! isExcluded[sender] && ! isExcluded[recipient]) {
        _transferStandard(sender, recipient, amount);
    } else if (_isExcluded[sender] && _isExcluded[recipient]) {
        _transferBothExcluded(sender, recipient, amount);
    } else {
        _transferStandard(sender, recipient, amount);
   if (!takeFee) restoreAllFee();
```

```
function _transferStandard(
   address sender,
   address recipient,
   uint256 tAmount
) private {
       uint256 rAmount,
       uint256 rTransferAmount,
        uint256 rFee,
        uint256 tTransferAmount,
        uint256 tFee,
       uint256 tLiquidity
    ) = getValues(tAmount);
   _rOwned[sender] = _rOwned[sender].sub(rAmount);
   _rOwned[recipient] = _rOwned[recipient].add(rTransferAmount);
   _takeLiquidity(tLiquidity);
   _reflectFee(rFee, tFee);
   emit Transfer(sender, recipient, tTransferAmount);
function _transferToExcluded(
   address sender,
   address recipient,
   uint256 tAmount
) private {
        uint256 rAmount,
       uint256 rTransferAmount,
       uint256 rFee,
       uint256 tTransferAmount,
       uint256 tFee,
       uint256 tLiquidity
    ) = _getValues(tAmount);
   _rOwned[sender] = _rOwned[sender].sub(rAmount);
   _tOwned[recipient] = _tOwned[recipient].add(tTransferAmount);
   _rOwned[recipient] = _rOwned[recipient].add(rTransferAmount);
   _takeLiquidity(tLiquidity);
   _reflectFee(rFee, tFee);
    emit Transfer(sender, recipient, tTransferAmount);
function _transferFromExcluded(
   address sender,
   address recipient,
   uint256 tAmount
) private {
        uint256 rAmount,
        uint256 rTransferAmount,
        uint256 rFee,
```

```
uint256 tTransferAmount,
    uint256 tFee,
    uint256 tLiquidity
) = _getValues(tAmount);
    _tOwned[sender] = _tOwned[sender].sub(tAmount);
    _rOwned[sender] = _rOwned[sender].sub(rAmount);
    _rOwned[recipient] = _rOwned[recipient].add(rTransferAmount);
    _takeLiquidity(tLiquidity);
    _reflectFee(rFee, tFee);
    emit Transfer(sender, recipient, tTransferAmount);
}
```

Contract ABI

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```

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      "type": "address"
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      "name": "amount",
      "type": "uint256"
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  "name": "transfer",
  "outputs": [
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  ],
  "stateMutability": "nonpayable",
  "type": "function"
},
  "inputs": [
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      "name": "sender",
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"internalType": "address",
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      "type": "address"
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  "outputs": [
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  "type": "function"
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  "inputs": [
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      "name": "newOwner",
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  "outputs": [],
  "stateMutability": "nonpayable",
  "type": "function"
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  "inputs": [],
  "name": "uniswapV2Pair",
  "outputs": [
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  "stateMutability": "view",
  "type": "function"
},
  "inputs": [],
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  "outputs": [
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      "name": "",
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  "stateMutability": "nonpayable",
  "type": "function"
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  "stateMutability": "payable",
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Deployed Bytecode

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