SMART CONTRACT AUDIT REPORT

For

Gubboinc (GBO)

Prepared By: SFI Team

Prepared for: GBO team

Prepared on: 30/11/2021

Table of Content

- # Disclaimer

  This is a limited report on our findings based on our analysis, in accordance with good industry practice as of the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against the team on the basis of what it says or doesn't say, or how team produced it, and it is important for you to conduct your own independent investigations before making any decisions. team go into more detail on this in the below disclaimer below – please make sure to read it in full.

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- # Overview of the audit

The project has 1 file. It contains approx 1772 lines of Solidity code. Most of the functions and state variables are well commented on using the Nat spec documentation, but that does not create any vulnerability.

- # Attacks made to the contract

In order to check for the security of the contract, we tested several attacks in order to make sure that the contract is secure and follows best practices automatically.

1. Unit tests passing.

2. Compilator warnings;

3. Race Conditions. Reentrancy. Cross-function Race Conditions. Pitfalls in Race Condition solutions;

4. Possible delays in data delivery;

5. Transaction-Ordering Dependence (front running);

6. Timestamp Dependence;

7. Integer Overflow and Underflow;

8. DoS with (unexpected) Revert;

9. DoS with Block Gas Limit

10. Call Depth Attack. Not relevant in modern ethereum network

11. Methods execution permissions;

12. Oracles calls;

13. Economy model. It’s important to forecast scenarios when a user is provided with additional economic motivation or faced with limitations. If application logic is based on incorrect economy model, the application will not function correctly and participants will incur financial losses. This type of issue is most often found in bonus rewards systems.
14. The impact of the exchange rate on the logic;
15. Private user data leaks.

- # Good things in smart contract

Compiler version is static: -
=> In this file, you have put “pragma solidity 0.8.3;” which is a good way to define the compiler version.

```
pragma solidity 0.8.3;
```

- **SafeMath library: -**

GBO is using SafeMath library it is a good thing. It protects the contract from overflow and underflow.

```
library SafeMath {

    function tryAdd(uint256 a, uint256 b) internal pure returns (bool, uint256) {
        unchecked {
            uint256 c = a + b;
            if (c < a) return (false, 0);
            return (true, c);
        }
    }
    function trySub(uint256 a, uint256 b) internal pure returns (bool, uint256) {
        unchecked {
            if (b > a) return (false, 0);
            return (true, a - b);
        }
    }
```

- **Ownable library : -**
  - Here you GBO token using ownable library, Initializes the contract setting the deployer as the initial owner

```
                abstract contract Ownable is Context {
    address private _owner;

    event OwnershipTransferred(address indexed previousOwner, address indexed
newOwner);

    /**
     * @dev Initializes the contract setting the deployer as the initial owner.
     */
    constructor() {
        _setOwner(_msgSender());
    }

    function owner() public view virtual returns (address) {
        return _owner;
    }
```

- Here you GBO token using interface IERC20 which Returns the amount of tokens in existence, symbol, name , owner and etc. based on IERC20 interface

```
interface IERC20 {
    function totalSupply() external view returns (uint256);
    function balanceOf(address account) external view returns (uint256);
    function transfer(address recipient, uint256 amount) external returns (bool);

    function allowance(address owner, address spender) external view returns
(uint256);
```

- Here you GBO token using Uniswap libraries (IUniswapV2Factory interface, IUniswapV2Pair interface, and IUniswapV2Router01 interface)

```
interface IUniswapV2Factory {
       event PairCreated(address indexed token0,
   address indexed token1, address pair, uint);
interface IUniswapV2Pair {
    event Approval(address indexed owner, address
   indexed spender, uint value);

event Transfer(address indexed from, address indexed to, uint value);

interface IUniswapV2Router01 {
    function factory() external pure returns
   (address);

function WETH() external pure returns (address);
```

- Here you GBO using address library which used for Collection of functions related to the address type.

```
library Address {

    function isContract(address account) internal view returns (bool) {
        uint256 size;
        assembly {
            size := extcodesize(account)}
        return size > 0;}
    function sendValue(address payable recipient, uint256 amount) internal {
        require(address(this).balance >= amount, "Address: insufficient balance");

        (bool success, ) = recipient.call{value: amount}("");
        require(success, "Address: unable to send value, recipient may have
reverted");}
```

- ## Critical vulnerabilities found in the contract

  There not Critical severity vulnerabilities found

- ## High vulnerabilities found in the contract

  There not High severity vulnerabilities found

- ## Medium vulnerabilities found in the contract

  There not Medium severity vulnerabilities found

- ## Low vulnerabilities found in the contract

  There not Low severity vulnerabilities found

- ## V. Low vulnerabilities found in the contract

Block timestamp:

```
  address(this),
            block.timestamp
        );
```

In detail
Use of "block.timestamp": "block.timestamp" can be influenced by miners to a certain degree.

That means that a miner can "choose" the block.timestamp, to a certain degree, to change the outcome of a transaction in the mined block.

- **Notes**

#ERC20:

```
function decimals()
    external
    view
    returns (
      uint8 decimalPlaces
    );
```

In detail
ERC20 contract's "decimals" function should have "uint8" as return type

#Gas Costs:

```
function name() public view virtual override returns (string memory) {
        return _name;
    }
```

In detail
Gas requirement of function GBO.name is infinite:If the gas requirement of a function is higher than the block gas limit, it cannot be executed Please avoid loops in your functions or actions that modify large areas of storage
(This includes clearing or copying arrays in storage)

Testing proves:

1- Check for security

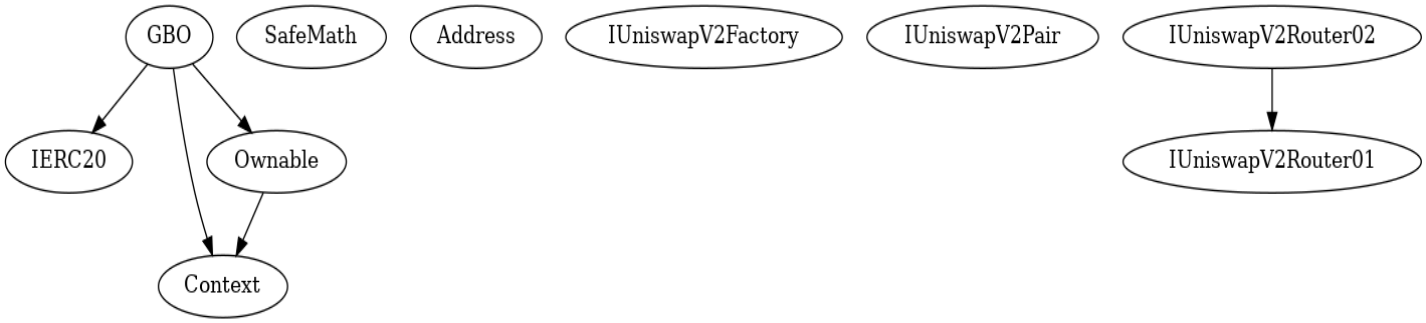
d102ce967b38677c03638a1c344abf969fc8541bb7afa1133923af225ae3b6ef

File: Gubboin... | Language: solidity | Size: 47515 bytes | Date: 2021-11-30T14:07:55.103Z

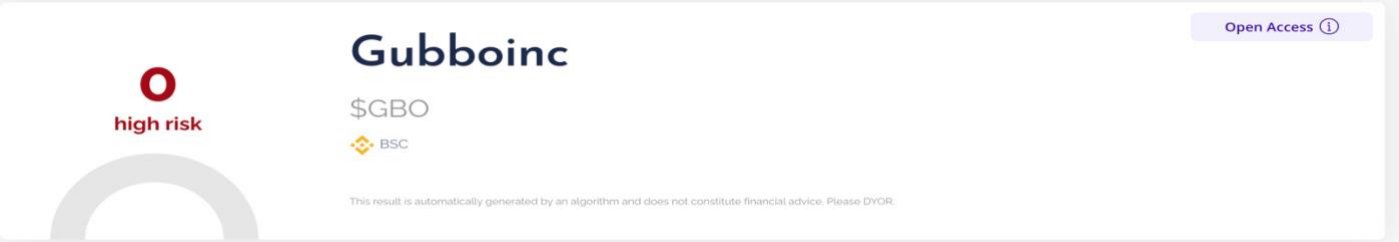
Critical	High	Medium	Low	Note
0	0	0	0	2

2- SOLIDITY STATIC ANALYSIS

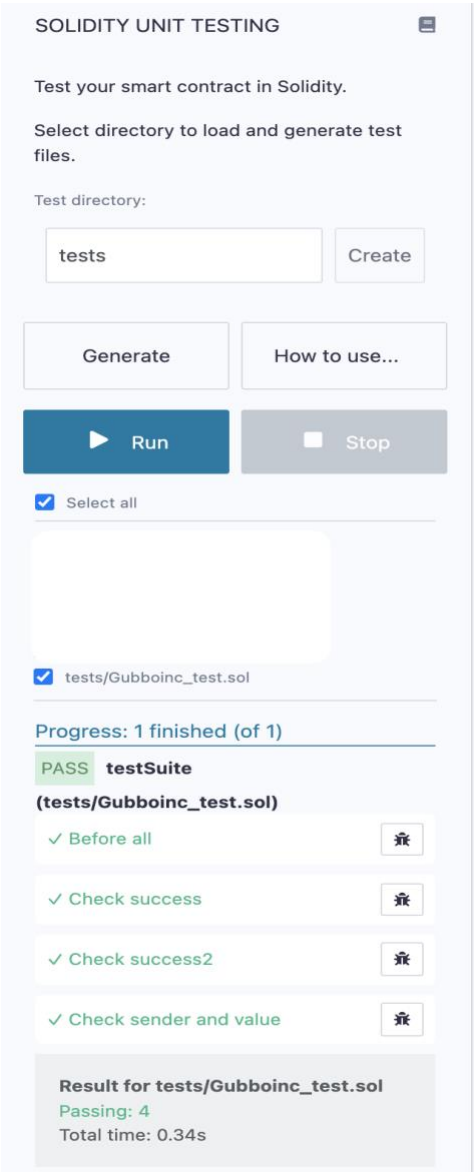
3- Inheritance graph



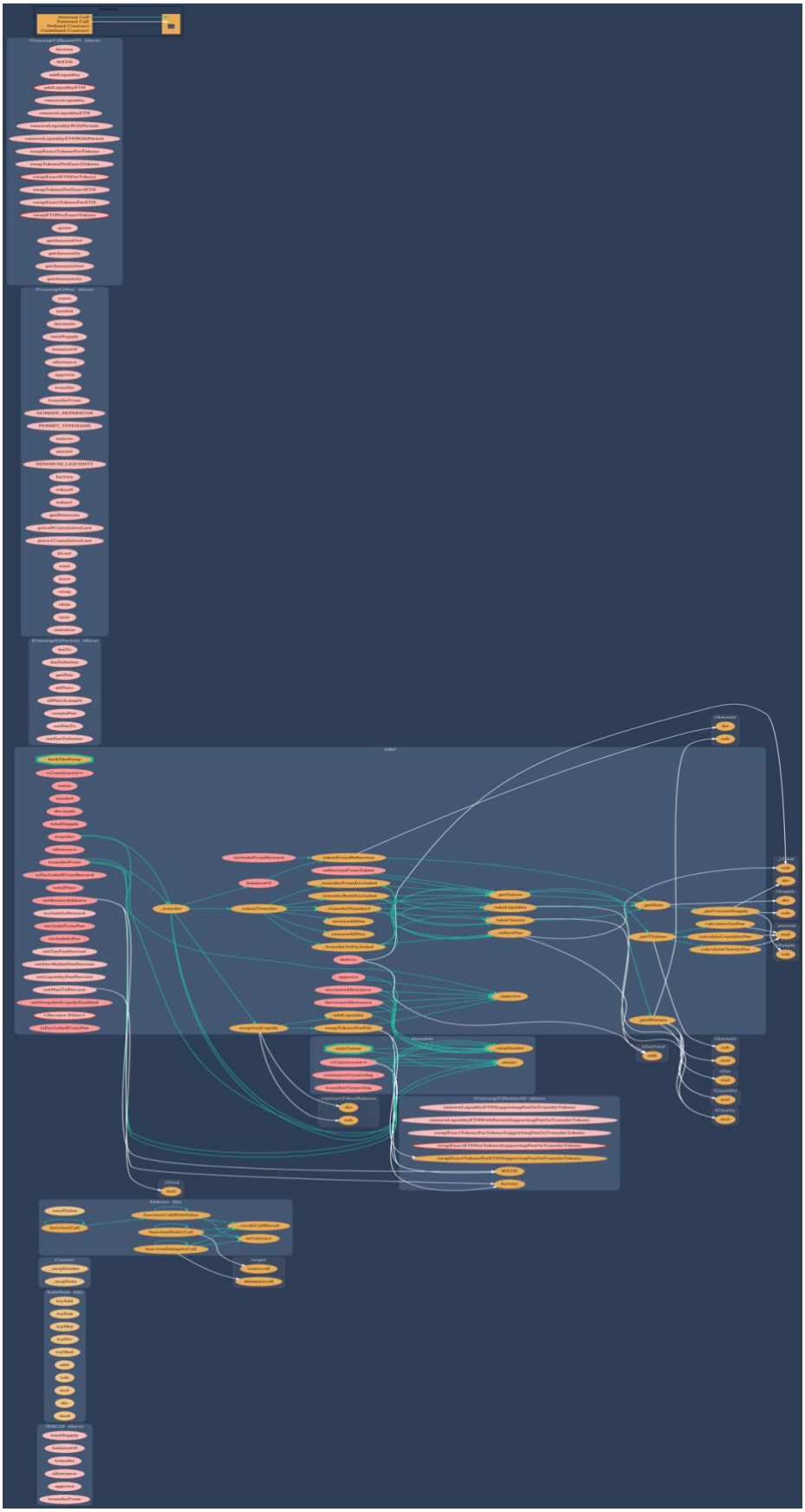
4- Solidity security scanner



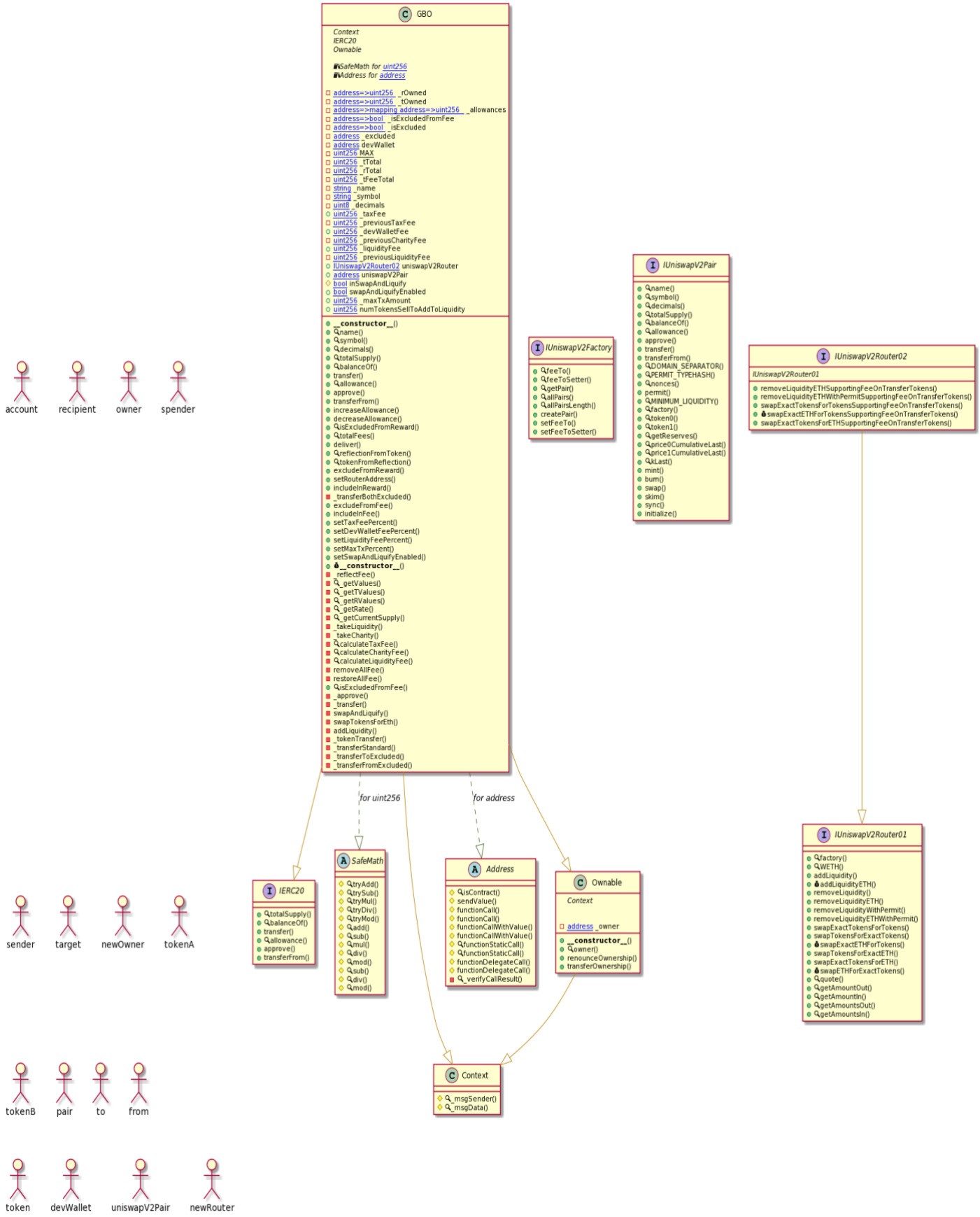
5- SOLIDITY UNIT TESTING



6- Call graph



Unified Modeling Language (UML)



Function Signature

```
11902160  =>  _getTValues(uint256)
16279055  =>  isContract(address)
39509351  =>  increaseAllowance(address,uint256)
75128141  =>  calculateTaxFee(uint256)
18160ddd  =>  totalSupply()
70a08231  =>  balanceOf(address)
a9059cbb  =>  transfer(address,uint256)
dd62ed3e  =>  allowance(address,address)
095ea7b3  =>  approve(address,uint256)
23b872dd  =>  transferFrom(address,address,uint256)
884557bf  =>  tryAdd(uint256,uint256)
a29962b1  =>  trySub(uint256,uint256)
6281efa4  =>  tryMul(uint256,uint256)
736ecb18  =>  tryDiv(uint256,uint256)
38dc0867  =>  tryMod(uint256,uint256)
771602f7  =>  add(uint256,uint256)
b67d77c5  =>  sub(uint256,uint256)
c8a4ac9c  =>  mul(uint256,uint256)
a391c15b  =>  div(uint256,uint256)
f43f523a  =>  mod(uint256,uint256)
e31bdc0a  =>  sub(uint256,uint256,string)
b745d336  =>  div(uint256,uint256,string)
71af23e8  =>  mod(uint256,uint256,string)
119df25f  =>  _msgSender()
8b49d47e  =>  _msgData()
24a084df  =>  sendValue(address,uint256)
a0b5ffb0  =>  functionCall(address,bytes)
241b5886  =>  functionCall(address,bytes,string)
2a011594  =>  functionCallWithValue(address,bytes,uint256)
d525ab8a  =>  functionCallWithValue(address,bytes,uint256,string)
c21d36f3  =>  functionStaticCall(address,bytes)
dbc40fb9  =>  functionStaticCall(address,bytes,string)
ee33b7e2  =>  functionDelegateCall(address,bytes)
57387df0  =>  functionDelegateCall(address,bytes,string)
18c2c6a2  =>  _verifyCallResult(bool,bytes,string)
8da5cb5b  =>  owner()
715018a6  =>  renounceOwnership()
f2fde38b  =>  transferOwnership(address)
017e7e58  =>  feeTo()
094b7415  =>  feeToSetter()
e6a43905  =>  getPair(address,address)
1e3dd18b  =>  allPairs(uint256)
574f2ba3  =>  allPairsLength()
c9c65396  =>  createPair(address,address)
f46901ed  =>  setFeeTo(address)
a2e74af6  =>  setFeeToSetter(address)
06fdde03  =>  name()
95d89b41  =>  symbol()
313ce567  =>  decimals()
3644e515  =>  DOMAIN_SEPARATOR()
30adf81f  =>  PERMIT_TYPEHASH()
7ecebe00  =>  nonces(address)
d505accf  =>  permit(address,address,uint256,uint256,uint8,bytes32,bytes32)
ba9a7a56  =>  MINIMUM_LIQUIDITY()
c45a0155  =>  factory()
0dfe1681  =>  token0()
```

```
d21220a7  =>  token1()
0902f1ac  =>  getReserves()
5909c0d5  =>  price0CumulativeLast()
5a3d5493  =>  price1CumulativeLast()
7464fc3d  =>  kLast()
6a627842  =>  mint(address)
89afcb44  =>  burn(address)
022c0d9f  =>  swap(uint256,uint256,address,bytes)
bc25cf77  =>  skim(address)
fff6cae9  =>  sync()
485cc955  =>  initialize(address,address)
ad5c4648  =>  WETH()
e8e33700  =>
addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256)
f305d719  =>  addLiquidityETH(address,uint256,uint256,uint256,address,uint256)
baa2abde  =>
removeLiquidity(address,address,uint256,uint256,uint256,address,uint256)
02751cec  =>  removeLiquidityETH(address,uint256,uint256,uint256,address,uint256)
2195995c  =>
removeLiquidityWithPermit(address,address,uint256,uint256,uint256,address,uint256,b
ool,uint8,bytes32,bytes32)
ded9382a  =>
removeLiquidityETHWithPermit(address,uint256,uint256,uint256,address,uint256,bool,u
int8,bytes32,bytes32)
38ed1739  =>  swapExactTokensForTokens(uint256,uint256,address[],address,uint256)
8803dbee  =>  swapTokensForExactTokens(uint256,uint256,address[],address,uint256)
7ff36ab5  =>  swapExactETHForTokens(uint256,address[],address,uint256)
4a25d94a  =>  swapTokensForExactETH(uint256,uint256,address[],address,uint256)
18cbafe5  =>  swapExactTokensForETH(uint256,uint256,address[],address,uint256)
fb3bdb41  =>  swapETHForExactTokens(uint256,address[],address,uint256)
ad615dec  =>  quote(uint256,uint256,uint256)
054d50d4  =>  getAmountOut(uint256,uint256,uint256)
85f8c259  =>  getAmountIn(uint256,uint256,uint256)
d06ca61f  =>  getAmountsOut(uint256,address[])
1f00ca74  =>  getAmountsIn(uint256,address[])
af2979eb  =>
removeLiquidityETHSupportingFeeOnTransferTokens(address,uint256,uint256,uint256,add
ress,uint256)
5b0d5984  =>
removeLiquidityETHWithPermitSupportingFeeOnTransferTokens(address,uint256,uint256,u
int256,address,uint256,bool,uint8,bytes32,bytes32)
5c11d795  =>
swapExactTokensForTokensSupportingFeeOnTransferTokens(uint256,uint256,address[],add
ress,uint256)
b6f9de95  =>
swapExactETHForTokensSupportingFeeOnTransferTokens(uint256,address[],address,uint25
6)
791ac947  =>
swapExactTokensForETHSupportingFeeOnTransferTokens(uint256,uint256,address[],addres
s,uint256)
a457c2d7  =>  decreaseAllowance(address,uint256)
88f82020  =>  isExcludedFromReward(address)
13114a9d  =>  totalFees()
3bd5d173  =>  deliver(uint256)
4549b039  =>  reflectionFromToken(uint256,bool)
2d838119  =>  tokenFromReflection(uint256)
52390c02  =>  excludeFromReward(address)
41cb87fc  =>  setRouterAddress(address)
3685d419  =>  includeInReward(address)
```

```
6ff6cdf4  =>  _transferBothExcluded(address,address,uint256)
437823ec  =>  excludeFromFee(address)
ea2f0b37  =>  includeInFee(address)
061c82d0  =>  setTaxFeePercent(uint256)
59f14a4d  =>  setDevWalletFeePercent(uint256)
8ee88c53  =>  setLiquidityFeePercent(uint256)
d543dbeb  =>  setMaxTxPercent(uint256)
c49b9a80  =>  setSwapAndLiquifyEnabled(bool)
184d894e  =>  _reflectFee(uint256,uint256)
d4780e36  =>  _getValues(uint256)
65c63d72  =>  _getRValues(uint256,uint256,uint256,uint256,uint256)
94e10784  =>  _getRate()
97a9d560  =>  _getCurrentSupply()
c432df5e  =>  _takeLiquidity(uint256)
81ef5eb0  =>  _takeCharity(uint256)
0b2d25ca  =>  calculateCharityFee(uint256)
cc126a23  =>  calculateLiquidityFee(uint256)
301370af  =>  removeAllFee()
e7e3e3a7  =>  restoreAllFee()
5342acb4  =>  isExcludedFromFee(address)
104e81ff  =>  _approve(address,address,uint256)
30e0789e  =>  _transfer(address,address,uint256)
173865ad  =>  swapAndLiquify(uint256)
b28805f4  =>  swapTokensForEth(uint256)
9cd441da  =>  addLiquidity(uint256,uint256)
b09bbc79  =>  _tokenTransfer(address,address,uint256,bool)
2852df65  =>  _transferStandard(address,address,uint256)
16f1cc83  =>  _transferToExcluded(address,address,uint256)
c7d9be66  =>  _transferFromExcluded(address,address,uint256)
```

- # Automatic general report

Files Description Table

File Name	SHA-1 Hash
/Users/macbook/Desktop/smart contracts/Gubboinc.sol	cdaf6f56f7940431997f3c22950fd7c2db8ce31e

Contracts Description Table

Contract	Type	Bases		
└	**Function Name**	**Visibility**	**Mutability**	**Modifiers**
IERC20	Interface			
└	totalSupply	External ❗		NO❗
└	balanceOf	External ❗		NO❗
└	transfer	External ❗	🛑	NO❗
└	allowance	External ❗		NO❗
└	approve	External ❗	🛑	NO❗
└	transferFrom	External ❗	🛑	NO❗
SafeMath	Library			
└	tryAdd	Internal 🔒		
└	trySub	Internal 🔒		
└	tryMul	Internal 🔒		
└	tryDiv	Internal 🔒		
└	tryMod	Internal 🔒		
└	add	Internal 🔒		
└	sub	Internal 🔒		
└	mul	Internal 🔒		
└	div	Internal 🔒		
└	mod	Internal 🔒		
└	sub	Internal 🔒		
└	div	Internal 🔒		
└	mod	Internal 🔒		
Context	Implementation			
└	_msgSender	Internal 🔒		
└	_msgData	Internal 🔒		
Address	Library			
└	isContract	Internal 🔒		
└	sendValue	Internal 🔒	🛑	
└	functionCall	Internal 🔒	🛑	
└	functionCall	Internal 🔒	🛑	
└	functionCallWithValue	Internal 🔒	🛑	
└	functionCallWithValue	Internal 🔒	🛑	
└	functionStaticCall	Internal 🔒		
└	functionStaticCall	Internal 🔒		
└	functionDelegateCall	Internal 🔒	🛑	
└	functionDelegateCall	Internal 🔒	🛑	
└	_verifyCallResult	Private 🔐		


Ownable | Implementation | Context
<Constructor> | Public | NO
owner | Public | NO
renounceOwnership | Public | onlyOwner
transferOwnership | Public | onlyOwner
IUniswapV2Factory | Interface
feeTo | External | NO
feeToSetter | External | NO
getPair | External | NO
allPairs | External | NO
allPairsLength | External | NO
createPair | External | NO
setFeeTo | External | NO
setFeeToSetter | External | NO
IUniswapV2Pair | Interface
name | External | NO
symbol | External | NO
decimals | External | NO
totalSupply | External | NO
balanceOf | External | NO
allowance | External | NO
approve | External | NO
transfer | External | NO
transferFrom | External | NO
DOMAIN_SEPARATOR | External | NO
PERMIT_TYPEHASH | External | NO
nonces | External | NO
permit | External | NO
MINIMUM_LIQUIDITY | External | NO
factory | External | NO
token0 | External | NO
token1 | External | NO
getReserves | External | NO
price0CumulativeLast | External | NO
price1CumulativeLast | External | NO
kLast | External | NO
mint | External | NO
burn | External | NO
swap | External | NO
skim | External | NO
sync | External | NO
initialize | External | NO
IUniswapV2Router01 | Interface
factory | External | NO
WETH | External | NO
addLiquidity | External | NO
addLiquidityETH | External | NO
removeLiquidity | External | NO
removeLiquidityETH | External | NO
removeLiquidityWithPermit | External | NO
removeLiquidityETHWithPermit | External | NO
swapExactTokensForTokens | External | NO
swapTokensForExactTokens | External | NO
swapExactETHForTokens | External | NO

└	swapTokensForExactETH	External ❗	🔴	NO❗
└	swapExactTokensForETH	External ❗	🔴	NO❗
└	swapETHForExactTokens	External ❗	💵	NO❗
└	quote	External ❗		NO❗
└	getAmountOut	External ❗		NO❗
└	getAmountIn	External ❗		NO❗
└	getAmountsOut	External ❗		NO❗
└	getAmountsIn	External ❗		NO❗
IUniswapV2Router02	Interface	IUniswapV2Router01		
└	removeLiquidityETHSupportingFeeOnTransferTokens	External ❗	🔴	NO❗
└	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External ❗	🔴	NO❗
└	swapExactTokensForTokensSupportingFeeOnTransferTokens	External ❗	🔴	NO❗
└	swapExactETHForTokensSupportingFeeOnTransferTokens	External ❗	💵	NO❗
└	swapExactTokensForETHSupportingFeeOnTransferTokens	External ❗	🔴	NO❗
GBO	Implementation	Context, IERC20, Ownable		
└	<Constructor>	Public ❗	🔴	NO❗
└	name	Public ❗		NO❗
└	symbol	Public ❗		NO❗
└	decimals	Public ❗		NO❗
└	totalSupply	Public ❗		NO❗
└	balanceOf	Public ❗		NO❗
└	transfer	Public ❗	🔴	NO❗
└	allowance	Public ❗		NO❗
└	approve	Public ❗	🔴	NO❗
└	transferFrom	Public ❗	🔴	NO❗
└	increaseAllowance	Public ❗	🔴	NO❗
└	decreaseAllowance	Public ❗	🔴	NO❗
└	isExcludedFromReward	Public ❗		NO❗
└	totalFees	Public ❗		NO❗
└	deliver	Public ❗	🔴	NO❗
└	reflectionFromToken	Public ❗		NO❗
└	tokenFromReflection	Public ❗		NO❗
└	excludeFromReward	Public ❗	🔴	onlyOwner
└	setRouterAddress	Public ❗	🔴	onlyOwner
└	includeInReward	External ❗	🔴	onlyOwner
└	_transferBothExcluded	Private 🔐	🔴	
└	excludeFromFee	Public ❗	🔴	onlyOwner
└	includeInFee	Public ❗	🔴	onlyOwner
└	setTaxFeePercent	External ❗	🔴	onlyOwner
└	setDevWalletFeePercent	External ❗	🔴	onlyOwner
└	setLiquidityFeePercent	External ❗	🔴	onlyOwner
└	setMaxTxPercent	External ❗	🔴	onlyOwner
└	setSwapAndLiquifyEnabled	Public ❗	🔴	onlyOwner
└	<Receive Ether>	External ❗	💵	NO❗
└	_reflectFee	Private 🔐	🔴	
└	_getValues	Private 🔐		
└	_getTValues	Private 🔐		
└	_getRValues	Private 🔐		
└	_getRate	Private 🔐		
└	_getCurrentSupply	Private 🔐		
└	_takeLiquidity	Private 🔐	🔴	
└	_takeCharity	Private 🔐	🔴	
└	calculateTaxFee	Private 🔐		
└	calculateCharityFee	Private 🔐		

└	calculateLiquidityFee	Private 🔐		
└	removeAllFee	Private 🔐	🛑	
└	restoreAllFee	Private 🔐	🛑	
└	isExcludedFromFee	Public ❗		NO❗
└	_approve	Private 🔐	🛑	
└	_transfer	Private 🔐	🛑	
└	swapAndLiquify	Private 🔐	🛑	lockTheSwap
└	swapTokensForEth	Private 🔐	🛑	
└	addLiquidity	Private 🔐	🛑	
└	_tokenTransfer	Private 🔐	🛑	
└	_transferStandard	Private 🔐	🛑	
└	_transferToExcluded	Private 🔐	🛑	
└	_transferFromExcluded	Private 🔐	🛑	

Legend

Symbol	Meaning
🛑	Function can modify state
💵	Function is payable

- # Summary of the Audit

According to automatically test, the customer`s solidity smart contract is **Secured**.

The general overview is presented in the Project Information section and all issues found are located in the audit overview section.

The test found 0 critical, 0 high, 0 medium, 0 low, 2 Very low issues, and 2 notes.