

# Smart Contract Audit

**FOR** 

**UncleJohnCoin** 

**DATED: 14 June 23'** 



# **AUDIT SUMMARY**

Project name - UncleJohnCoin

**Date: 14** June, 2023

**Scope of Audit-** Audit Ace was consulted to conduct the smart contract audit of the solidity source codes.

**Audit Status: Passed** 

## **Issues Found**

Status	Critical	High	Medium	Low	Suggestion
Open	0	0	0	0	0
Acknowledged	0	0	0	0	0
Resolved	0	0	0	0	0



# **USED TOOLS**

## Tools:

#### 1- Manual Review:

A line by line code review has been performed by audit ace team.

2- BSC Test Network: All tests were conducted on the BSC Test network, and each test has a corresponding transaction attached to it. These tests can be found in the "Functional Tests" section of the report.

#### 3-Slither:

The code has undergone static analysis using Slither.

#### **Testnet version:**

The tests were performed using the contract deployed on the BSC Testnet, which can be found at the following address:

https://testnet.bscscan.com/address/0x21C8C5128e0B 02012B92CE33196953020A00B57F#code



# **Token Information**

Token Name: UncleJohnCoin

Token Symbol: UJC

Decimals: 18

Token Supply: 44,444,444,444,444

**Token Address:** 

0xaD697d766B19AC18F48DaC87d73a8f3560AEA44d

Checksum:

3da994a19e737337c009e842595e96cb7e2d3b93

**Owner:** 

0x8A39f07449C0D0Df147508b9F3684BFb2B06E6CD

Deployer:

0x8A39f07449C0D0Df147508b9F3684BFb2B06E6CD



# **TOKEN OVERVIEW**

Fees:

Buy Fees: 0%

Sell Fees: 0%

Transfer Fees: 0%

Fees Privilege: None

Ownership: owned

Minting: No mint function

Max Tx Amount/ Max Wallet Amount: No

**Blacklist: No** 

Other Privileges: Initial distribution of tokens



# **AUDIT METHODOLOGY**

The auditing process will follow a routine as special considerations by Auditace:

- Review of the specifications, sources, and instructions provided to Auditace to make sure the contract logic meets the intentions of the client without exposing the user's funds to risk.
- Manual review of the entire codebase by our experts, which is the process of reading source code line-byline in an attempt to identify potential vulnerabilities.
- Specification comparison is the process of checking whether the code does what the specifications, sources, and instructions provided to Auditace describe.
- Test coverage analysis determines whether the test cases are covering the code and how much code isexercised when we run the test cases.
- Symbolic execution is analysing a program to determine what inputs cause each part of a program to execute.
- Reviewing the codebase to improve maintainability, security, and control based on the established industry and academic practices.



# **VULNERABILITY CHECKLIST**





## **CLASSIFICATION OF RISK**

## Severity

- Critical
- High-Risk
- Medium-Risk
- Low-Risk
- Gas Optimization/Suggestion

## **Description**

These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.

A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.

A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.

A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.

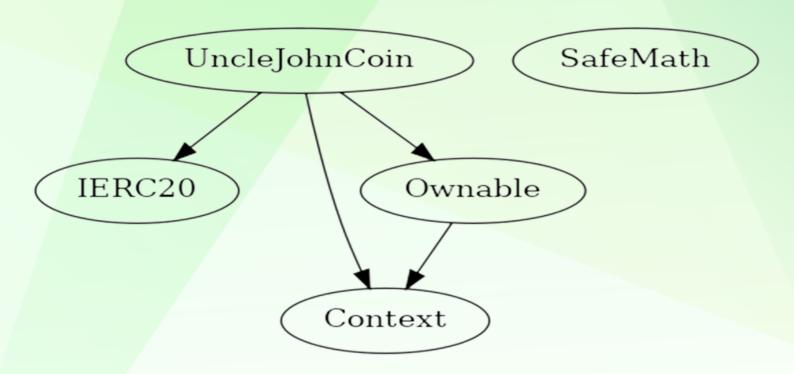
A vulnerability that has an informational character but is not affecting any of the code.

## **Findings**

Severity	Found
◆ Critical	0
◆ High-Risk	0
◆ Medium-Risk	0
♦ Low-Risk	0
<ul><li>Gas Optimization /</li><li>Suggestions</li></ul>	0



## **INHERITANCE TREE**





## **POINTS TO NOTE**

- Fees are 0 (static)
- Owner is not able to blacklist an arbitrary address.
- Owner is not able to disable trades
- Owner is not able to limit buy/sell/transfer/wallet amounts
- Owner is not able to mint new tokens



## **CONTRACT ASSESMENT**

```
| Contract |
               Type
                            Bases
      **Function Name** | **Visibility** | **Mutability** | **Modifiers** |
**IERC20** | Interface | |||
 | totalSupply | External | NO | |
 | decimals | External | | NO | |
 L | name | External | | | NO | |
| L | getOwner | External | | NO | |
 | balanceOf | External | | NO | |
 transfer | External | | NO | |
L | allowance | External | | NO | |
 L | approve | External | | | NO | |
 L | transferFrom | External | | | NO | |
**Context** | Implementation | |||
L | <Constructor> | Public | |
                                NO |
 L | msgSender | Internal 🔒 | | |
 L | msgData | Internal 🔒 | | |
**SafeMath** | Library | |||
 └ | add | Internal 🔒 | ||
 └ | sub | Internal 🔒 | | |
 └ | sub | Internal 🔒 | | |
L | mul | Internal 🔒 | |
 └ | div | Internal 🔒 | ||
 └ | div | Internal 🔒 | | |
L | mod | Internal 🔒 | ||
 **Ownable** | Implementation | Context |||
L | <Constructor> | Public | | | NO | |
L | owner | Public | | NO | |
L | renounceOwnership | Public | | | onlyOwner |
 └ | transferOwnership | Public ! | ● | onlyOwner |
 L | transferOwnership | Internal | | | |
**UncleJohnCoin** | Implementation | Context, IERC20, Ownable |||
L | < Constructor > | Public | | | NO | |
 L | getOwner | External | | NO | |
L | decimals | External | | NO | |
 L | symbol | External | | NO | |
```



## **CONTRACT ASSESMENT**

```
| L | name | External | | NO | |
 L | totalSupply | External | | | NO | |
 | balanceOf | External | | NO | |
 L | transfer | External | | NO | |
 | allowance | External | | NO | |
 L | approve | External | | NO | |
 L | transferFrom | External | | | NO | |
| L | increaseAllowance | Public | | | NO | |
 | decreaseAllowance | Public | | | NO | |
 L | transfer | Private 🔐 | 🛑 | |
 transferStandard | Private 🔐 | 🛑 | |
| L | approve | Internal 🔒 | 🛑 | |
### Legend
| Symbol | Meaning |
|:-----|
       | Function can modify state |
       | Function is payable |
```



## STATIC ANALYSIS

UncleJohnCoin.allowance(address,address).owner (contracts/Token.sol#423) shadows: Ownable.owner() (contracts/Token.sol#302-304) (function) UncleJohnCoin.\_approve(address,address,uint256).owner (contracts/Token.sol#541) shadows: - Ownable.owner() (contracts/Token.sol#302-304) (function) Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing Context.\_msgData() (contracts/Token.sol#118-121) is never used and should be removed SafeMath.div(uint256,uint256) (contracts/Token.sol#217-219) is never used and should be removed SafeMath.div(uint256,uint256,string) (contracts/Token.sol#232-239) is never used and should be removed SafeMath.mod(uint256,uint256) (contracts/Token.sol#252-254) is never used and should be removed SafeMath.mod(uint256,uint256,string) (contracts/Token.sol#267-270) is never used and should be removed SafeMath.mul(uint256,uint256) (contracts/Token.sol#192-204) is never used and should be removed Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#dead-code Pragma version^0.8.17 (contracts/Token.sol#5) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16 solc-0.8.20 is not recommended for deployment Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity Redundant e Follow link (ctrl + click) ntracts/Token.sol#119) inContext (contracts/Token.sol#109-122) Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#redundant-statements UncleJohnCoin.\_decimals (contracts/Token.sol#351) should be immutable UncleJohnCoin.\_name (contracts/Token.sol#353) should be immutable UncleJohnCoin.\_symbol (contracts/Token.sol#352) should be immutable UncleJohnCoin.\_totalSupply (contracts/Token.sol#350) should be immutable  $Reference: \ https://github.com/crytic/slither/wiki/Detector-Documentation\#state-variables-that-could-be-declared-immutable and the second state of the second state$ 

Result => A static analysis of contract's source code has been performed using slither,

No major issues were found in the output



# **FUNCTIONAL TESTING**

#### 1- Adding liquidity (passed):

https://testnet.bscscan.com/tx/0x901599548c622fc2d8c453ffb60c69 4e95ec31cbf089280f9f67ce64dffda27c

#### 2- Buying (0% tax) (passed):

https://testnet.bscscan.com/tx/0x9538b95347dd5590a2318f10e7d95dad2b81e2aa162de7f09f5d8adc7eda2c85

#### 3- Selling (0% tax) (passed):

https://testnet.bscscan.com/tx/0x10239b8f98d72405b69da5df2fa940bd81a4f1ef3460ce18483509a44ebbb96f

### 4- Transferring 0% tax) (passed):

https://testnet.bscscan.com/tx/0xaffbb8677e109c3e8171d73ba1a15bc3f6019e4be659156a2ce89e0cbabba3a9



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