# Full Audit Report

## JournArt Security Assessment


SECURI LAB contact@securi-lab.com

FULL AUDIT REPORT

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# Report Information

| | |
|---|---|
| About Report | **JournArt Security Assessment** |
| Version | **v1.2** |
| Client | **JournArt** |
| Language | **Solidity** |
| Confidentiality | **Public** |
| Contract Address | **0xf3E07812eBC8604fdDB0AA35ff79a03F48f48948** |
| Audit Method | **Whitebox** |
| Security Assessment Author | **Auditor** SECURI LAB<br>**Mark K. [Security Researcher \| Redteam]**<br>**Kevin N. [Security Researcher \| Web3 Dev]**<br>**Yusheng T. [Security Researcher \| Incident Response]**<br><br>**Approve Document**<br>**Ronny C. CTO & Head of Security Researcher** |

*Audit Method

**Whitebox:** Securi Team receives all source code from the client to provide the assessment.
**Blackbox:** Securi Team receives only bytecode from the client to provide the assessment.

**Digital Sign (Only Full Audit Report)**

Digitally signed by CHIN J
DN: cn=CHIN J, o=SECURI LAB - Cybersecurity | Audit | KYC, ou=CEO, email=contact@securi-lab.com, c=TH
Date: 2023.02.14 20:04:58 +07'00'

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# Disclaimer

Regarding this security assessment, there are no guarantees about the security of the program instruction received from the client is hereinafter referred to as "**Source code**".
And **SECURI Lab** hereinafter referred to as "**Service Provider**", the **Service Provider** will not be held liable for any legal liability arising from errors in the security assessment. The responsibility will be the responsibility of the **Client**, hereinafter referred to as "**Service User**" and the **Service User** agrees not to be held liable to the **service provider** in any case. By contract **Service Provider** to conduct security assessments with integrity with professional ethics, and transparency to deliver security assessments to users The **Service Provider** has the right to postpone the delivery of the security assessment. If the security assessment is delayed whether caused by any reason and is not responsible for any delayed security assessments.
If **the service provider** finds a vulnerability The **service provider** will notify the **service user** via the Preliminary Report, which will be kept confidential for security. The **service provider** disclaims responsibility in the event of any attacks occurring whether before conducting a security assessment. Or happened later All responsibility shall be sole with the **service user**.

**Security Assessment Not Financial/Investment Advice Any loss arising from any investment in any project is the responsibility of the investor.**

**SECURI disclaims any liability incurred. Whether it's Rugpull, Abandonment, Soft Rugpull**

The SECURI LAB team has conducted a comprehensive security assessment of the vulnerabilities.
This assessment is tested with an expert assessment. Using the following test requirements

1. Smart Contract Testing with Expert Analysis By testing the most common and uncommon vulnerabilities.
2. Automated program testing It includes a sample vulnerability test and a sample of the potential vulnerabilities being used for the most frequent attacks.
3. Visibility, Mutability, Modifier function testing, such as whether a function can be seen in general, or whether a function can be changed and if so, who can change it.
4. Function association test It will be displayed through the association graph.
5. This safety assessment is cross-checked prior to the delivery of the assessment results.

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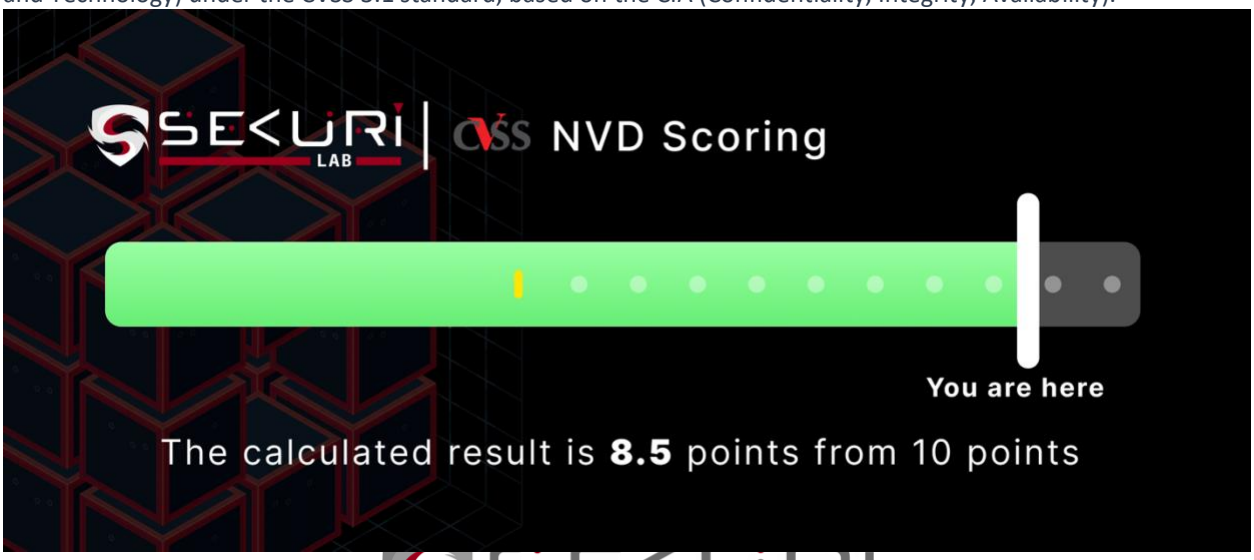
# Executive Summary

For this security assessment, SECURI LAB received a request from JournArt on Tuesday, January 31, 2023.

# NVD CVSS Scoring

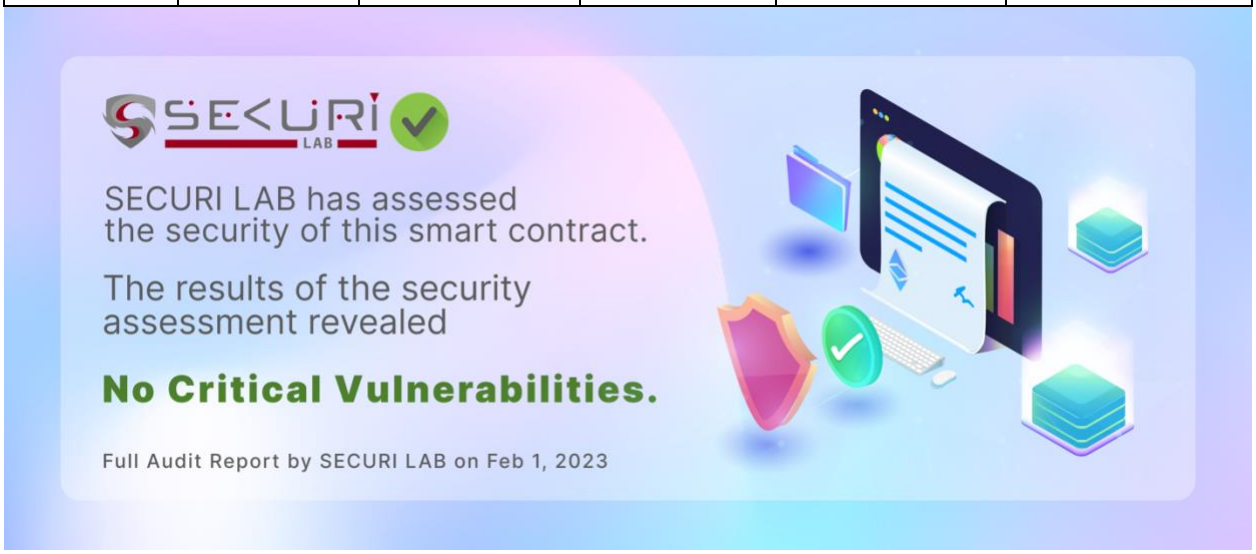
The score was calculated using the NVD (National Vulnerability Database) of NIST (National Institute of Standards and Technology) under the CVSS 3.1 standard, based on the CIA (Confidentiality, Integrity, Availability).




# Audit Result

**SECURI LAB evaluated the smart contract security of the project and found: [Total : 6]**

| Critical | High | Medium | Low | Very Low | Informational |
|---|---|---|---|---|---|
| 0 | 0 | 1 | 3 | 0 | 2 |



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## Project Introduction

**Scope Information:**

| | |
|---|---|
| Project Name | **JournArt** |
| Website | **https://journart.space** |
| Chain | **BNB Chain (Previously Binance Smart Chain)** |
| Language | **Solidity** |

**Audit Information:**

| | |
|---|---|
| Request Date | **Tuesday, January 31, 2023** |
| Audit Date | **Wednesday, February 1, 2023** |
| Re-assessment Date | **-** |

**Audit Version History:**

| Version | Date | Description |
|---|---|---|
| **1.0** | **Wednesday, February 1, 2023** | **Preliminary Report** |
| **1.1** | **Thursday, February 2, 2023** | **Full Audit Report** |
| **1.2** | **Tuesday, February 14, 2023** | **Full Audit Report [Update Report Template]** |

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**Initial Audit Scope:**

| | |
|---|---|
| Smart Contract | 0xf3E07812eBC8604fdDB0AA35ff79a03F48f48948 |
| Compiler Version | **v0.8.17+commit.8df45f5f** |

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## Security Assessment Procedure

Securi has the following procedures and regulations for conducting security assessments:

**1.Request Audit** Client submits a form request through the Securi channel. After receiving the request, Securi will discuss a security assessment. And drafting a contract and agreeing to sign a contract together with the Client

**2.Auditing** Securi performs security assessments of smart contracts obtained through automated analysis and expert manual audits.

**3.Preliminary Report** At this stage, Securi will deliver an initial security assessment. To report on vulnerabilities and errors found under Audit Scope will not publish preliminary reports for safety.

**4.Reassessment** After Securi has delivered the Preliminary Report to the Client, Securi will track the status of the vulnerability or error, which will be published to the Final Report at a later date with the following statuses:

- **a.Acknowledge** The client has been informed about errors or vulnerabilities from the security assessment.
- **b.Resolved** The client has resolved the error or vulnerability. Resolved is probably just a commit, and Securi is unable to verify that the resolved has been implemented or not.
- **c.Decline** Client has rejected the results of the security assessment on the issue.

**5.Final Report** Securi providing full security assessment report and public

## Risk Rating

Risk rating using this commonly defined: $Risk\ rating\ =\ impact\ *\ confidence$

**Impact** The severity and potential impact of an attacker attack

**Confidence** Ensuring that attackers expose and use this vulnerability

Both have a total of 3 levels: **High**, **Medium**, **Low**. By *Informational* will not be classified as a level

| Confidence / Impact [Likelihood] | Low | Medium | High |
|---|---|---|---|
| Low | **Very Low** | **Low** | **Medium** |
| Medium | **Low** | **Medium** | **High** |
| High | **Medium** | **High** | **Critical** |

**Severity** is a risk assessment It is calculated from the Impact and Confidence values using the following calculation methods, $Risk\ rating\ =\ impact\ *\ confidence$ It is categorized into **5 categories based** on the **lowest severity**: Very Low , Low , Medium , **High** , Critical .
For **Informational** will not be counted as **severity**

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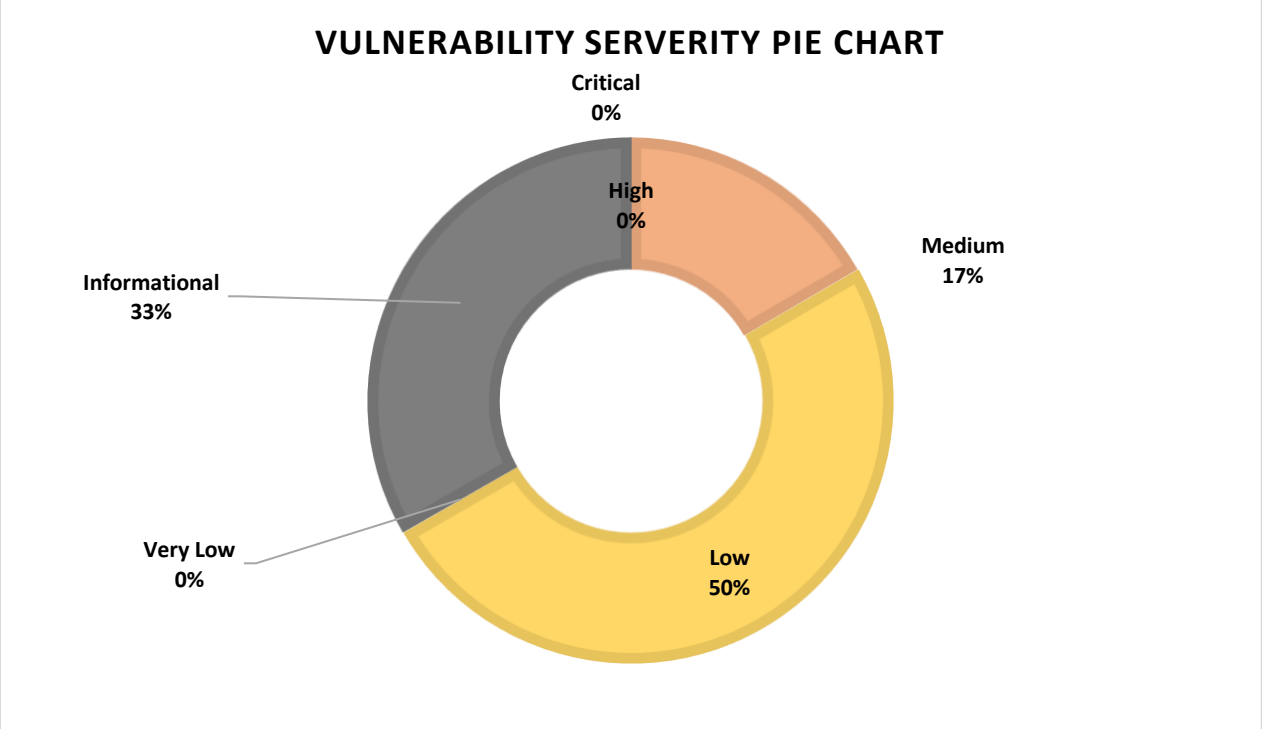
## Vulnerability Severity Summary

| Vulnerability Severity Level | Total |
|---|---|
| Critical | 0 |
| High | 0 |
| Medium | 1 |
| Low | 3 |
| Very Low | 0 |
| Informational (Non severity level) | 2 |



## Vulnerability Findings

| ID | Title | Severity | Status |
|---|---|---|---|
| SEC-01 | Imprecise arithmetic operations order (divide-before-multiply) | Medium | **Acknowledge** |
| SEC-02 | Missing Events Arithmetic (events-maths) | LOW | **Acknowledge** |
| SEC-03 | Missing Zero Address Validation (missing-zero-check) | LOW | **Acknowledge** |
| SEC-04 | Local variables shadowing (shadowing-local) | LOW | **Acknowledge** |
| SEC-05 | Conformity to Solidity naming conventions (naming-convention) | Informational | **Acknowledge** |
| SEC-06 | Costly operations in a loop (costly-loop) | Informational | **Acknowledge** |

## SEC-01: Imprecise arithmetic operations order (divide-before-multiply)

| Type | Severity | Location | Status |
|---|---|---|---|
| Imprecise arithmetic operations order (divide-before-multiply) | Medium | Check on finding | **Acknowledge** |

### Finding:

❌ JournArt._tokenTransfer(address,address,uint256,bool) (JournArt.sol:1519-1713) performs a multiplication on the result of a division:
- tBurn = tAmount * _Fee__Sell_Burn / 100 (JournArt.sol#1527)
- rBurn = tBurn * RFI (JournArt.sol#1556)

❌ JournArt._tokenTransfer(address,address,uint256,bool) (JournArt.sol:1519-1713) performs a multiplication on the result of a division:
- tReflect = tAmount * _Fee__Sell_Reflection / 100 (JournArt.sol#1529)
- rReflect = tReflect * RFI (JournArt.sol#1558)

❌ JournArt._tokenTransfer(address,address,uint256,bool) (JournArt.sol:1519-1713) performs a multiplication on the result of a division:
- tSwapFeeTotal = tAmount * _SwapFeeTotal_Sell / 100 (JournArt.sol#1530)
- rSwapFeeTotal = tSwapFeeTotal * RFI (JournArt.sol#1559)

❌ JournArt._tokenTransfer(address,address,uint256,bool) (JournArt.sol:1519-1713) performs a multiplication on the result of a division:
- tTokens = tAmount * _Fee__Sell_Tokens / 100 (JournArt.sol#1528)
- rTokens = tTokens * RFI (JournArt.sol#1557)

### Recommendation:

Consider ordering multiplication before division.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#divide-before-multiply

### Alleviation:

JournArt Team has acknowledge this issue.

## SEC-02: Missing Events Arithmetic (events-maths)

| Type | Severity | Location | Status |
|---|---|---|---|
| Missing Events Arithmetic (events-maths) | LOW | Check on finding | **Acknowledge** |

### Finding:

❌ JournArt.Processing__Swap_Trigger_Count(uint256) (JournArt.sol:1051-1054) should emit an event for:

- swapTrigger = Transaction_Count + 1 (JournArt.sol#1053)

### Recommendation:

Emit an event for critical parameter changes.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-events-arithmetic

### Alleviation:

JournArt Team has acknowledge this issue.

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## SEC-03: Missing Zero Address Validation (missing-zero-check)

| Type | Severity | Location | Status |
|---|---|---|---|
| Missing Zero Address Validation (missing-zero-check) | LOW | Check on finding | **Acknowledge** |

### Finding:

❌ JournArt.Update_Project_Wallets(address,address,address).Liquidity_Collection_Wallet (JournArt.sol:870) lacks a zero-check on :

- Wallet_Liquidity = Liquidity_Collection_Wallet (JournArt.sol#886

### Recommendation:

Check that the address is not zero.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation

### Alleviation:

JournArt Team has acknowledge this issue.

## SEC-04: Local variables shadowing (shadowing-local

| Type | Severity | Location | Status |
|---|---|---|---|
| Local variables shadowing (shadowing-local) | LOW | Check on finding | **Acknowledge** |

### Finding:

❌ JournArt._approve(address,address,uint256).owner (JournArt.sol:1227) shadows:
- JournArt.owner() (JournArt.sol#1183-1185) (function)

### Recommendation:

Rename the local variables that shadow another component.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

### Alleviation:

JournArt Team has acknowledge this issue.

## SEC-05: Conformity to Solidity naming conventions (naming-convention)

| Type | Severity | Location | Status |
|---|---|---|---|
| Conformity to Solidity naming conventions (naming-convention) | Informational | Check on finding | **Acknowledge** |

### Finding:

❌ Constant JournArt.Wallet_Burn (JournArt.sol:617) is not in UPPER_CASE_WITH_UNDERSCORES

### Recommendation:

Follow the Solidity [naming convention](https://solidity.readthedocs.io/en/v0.4.25/style-guide.html#naming-conventions).

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions

### Alleviation:

JournArt Team has acknowledge this issue.

## SEC-06: Costly operations in a loop (costly-loop)

| Type | Severity | Location | Status |
|---|---|---|---|
| Costly operations in a loop (costly-loop) | Informational | Check on finding | **Acknowledge** |

### Finding:

❌ JournArt.Rewards_Include_Wallet(address) (JournArt.sol:1111-1122) has costly operations inside a loop:

- _excluded.pop() (JournArt.sol#1118)

### Recommendation:

Use a local variable to hold the loop computation result.

Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#costly-operations-inside-a-loop

### Alleviation:

JournArt Team has acknowledge this issue.

## SWC Findings

| ID | Title | Scanning | Result |
|---|---|---|---|
| SWC-100 | Function Default Visibility | Complete | No risk |
| SWC-101 | Integer Overflow and Underflow | Complete | No risk |
| SWC-102 | Outdated Compiler Version | Complete | No risk |
| SWC-103 | Floating Pragma | Complete | No risk |
| SWC-104 | Unchecked Call Return Value | Complete | No risk |
| SWC-105 | Unprotected Ether Withdrawal | Complete | No risk |
| SWC-106 | Unprotected SELFDESTRUCT Instruction | Complete | No risk |
| SWC-107 | Reentrancy | Complete | No risk |
| SWC-108 | State Variable Default Visibility | Complete | No risk |
| SWC-109 | Uninitialized Storage Pointer | Complete | No risk |
| SWC-110 | Assert Violation | Complete | No risk |
| SWC-111 | Use of Deprecated Solidity Functions | Complete | No risk |
| SWC-112 | Delegatecall to Untrusted Callee | Complete | No risk |
| SWC-113 | DoS with Failed Call | Complete | No risk |

| | | | |
|---|---|---|---|
| SWC-114 | Transaction Order Dependence | Complete | No risk |
| SWC-115 | Authorization through tx.origin | Complete | No risk |
| SWC-116 | Block values as a proxy for time | Complete | No risk |
| SWC-117 | Signature Malleability | Complete | No risk |
| SWC-118 | Incorrect Constructor Name | Complete | No risk |
| SWC-119 | Shadowing State Variables | Complete | No risk |
| SWC-120 | Weak Sources of Randomness from Chain Attributes | Complete | No risk |
| SWC-121 | Missing Protection against Signature Replay Attacks | Complete | No risk |
| SWC-122 | Lack of Proper Signature Verification | Complete | No risk |
| SWC-123 | Requirement Violation | Complete | No risk |
| SWC-124 | Write to Arbitrary Storage Location | Complete | No risk |
| SWC-125 | Incorrect Inheritance Order | Complete | No risk |
| SWC-126 | Insufficient Gas Griefing | Complete | No risk |
| SWC-127 | Arbitrary Jump with Function Type Variable | Complete | No risk |
| SWC-128 | DoS With Block Gas Limit | Complete | No risk |

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| | | | |
|---|---|---|---|
| SWC-129 | Typographical Error | Complete | No risk |
| SWC-130 | Right-To-Left-Override control character (U+202E) | Complete | No risk |
| SWC-131 | Presence of unused variables | Complete | No risk |
| SWC-132 | Unexpected Ether balance | Complete | No risk |
| SWC-133 | Hash Collisions With Multiple Variable Length Arguments | Complete | No risk |
| SWC-134 | Message call with hardcoded gas amount | Complete | No risk |
| SWC-135 | Code With No Effects | Complete | No risk |
| SWC-136 | Unencrypted Private Data On-Chain | Complete | No risk |

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# Visibility, Mutability, Modifier function testing

## Components

| Contracts | Libraries | Interfaces | Abstract |
|---|---|---|---|
| 2 | 2 | 5 | 1 |

## Exposed Functions

This section lists functions that are explicitly declared public or payable. Please note that getter methods for public stateVars are not included.

| Public | Payable |
|---|---|
| 104 | 8 |

| External | Internal | Private | Pure | View |
|---|---|---|---|---|
| 87 | 93 | 9 | 17 | 38 |

## StateVariables

| Total | Public |
|---|---|
| 70 | 30 |

## Capabilities

| Solidity Versions observed | Experimental Features | Can Receive Funds | Uses Assembly | Has Destroyable Contracts |
|---|---|---|---|---|
| `0.8.17` | | `yes` | `yes` (2 asm blocks) | |

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| Transfers ETH | Low-Level Calls | Delegate Call | Uses Hash Functions | ECRecover | New/Create/Create2 |
|---|---|---|---|---|---|
| yes | | yes | | | yes → NewContract:JournArt |

| TryCatch | Σ Unchecked |
|---|---|
| | yes |

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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 | | | |
| └ | add | Internal 🔒 | | |
| └ | sub | Internal 🔒 | | |
| └ | mul | Internal 🔒 | | |
| └ | div | Internal 🔒 | | |
| └ | sub | Internal 🔒 | | |
| └ | div | Internal 🔒 | | |
| **Context** | Implementation | | | |
| └ | _msgSender | Internal 🔒 | | |
| └ | _msgData | Internal 🔒 | | |
| **Address** | Library | | | |

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| Contract | Type | Bases | | |
|---|---|---|---|---|
| └ | isContract | Internal 🔒 | | |
| └ | sendValue | Internal 🔒 | 🛑 | |
| └ | functionCall | Internal 🔒 | 🛑 | |
| └ | functionCall | Internal 🔒 | 🛑 | |
| └ | functionCallWithValue | Internal 🔒 | 🛑 | |
| └ | functionCallWithValue | Internal 🔒 | 🛑 | |
| └ | functionStaticCall | Internal 🔒 | | |
| └ | functionStaticCall | Internal 🔒 | | |
| └ | functionDelegateCall | Internal 🔒 | 🛑 | |
| └ | functionDelegateCall | Internal 🔒 | 🛑 | |
| └ | _verifyCallResult | Private 🔐 | | |
| | | | | |
| **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❗ |
| | | | | |

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| Contract | Type | Bases | | |
|---|---|---|---|---|
| **IUniswapV2Pair** | Interface | | | |
| L | name | External ❗ | | NO❗ |
| L | symbol | External ❗ | | NO❗ |
| L | decimals | External ❗ | | NO❗ |
| L | totalSupply | External ❗ | | NO❗ |
| L | balanceOf | External ❗ | | NO❗ |
| L | allowance | External ❗ | | NO❗ |
| L | approve | External ❗ | 🔘 | NO❗ |
| L | transfer | External ❗ | 🔘 | NO❗ |
| L | transferFrom | External ❗ | 🔘 | NO❗ |
| L | DOMAIN_SEPARATOR | External ❗ | | NO❗ |
| L | PERMIT_TYPEHASH | External ❗ | | NO❗ |
| L | nonces | External ❗ | | NO❗ |
| L | permit | External ❗ | 🔘 | NO❗ |
| L | MINIMUM_LIQUIDITY | External ❗ | | NO❗ |
| L | factory | External ❗ | | NO❗ |
| L | token0 | External ❗ | | NO❗ |
| L | token1 | External ❗ | | NO❗ |
| L | getReserves | External ❗ | | NO❗ |
| L | price0CumulativeLast | External ❗ | | NO❗ |
| L | price1CumulativeLast | External ❗ | | NO❗ |
| L | kLast | External ❗ | | NO❗ |

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| Contract | Type | Bases | | |
|---|---|---|---|---|
| └ | 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❗ |

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| Contract | Type | Bases | | |
|---|---|---|---|---|
| L | getAmountOut | External ❗ | | NO❗ |
| L | getAmountIn | External ❗ | | NO❗ |
| L | getAmountsOut | External ❗ | | NO❗ |
| L | getAmountsIn | External ❗ | | NO❗ |
| | | | | |
| **IUniswapV2Router02** | Interface | IUniswapV2Router01 | | |
| L | removeLiquidityETHSupportingFeeOnTransferTokens | External ❗ | 🔘 | NO❗ |
| L | removeLiquidityETHWithPermitSupportingFeeOnTransferTokens | External ❗ | 🔘 | NO❗ |
| L | swapExactTokensForTokensSupportingFeeOnTransferTokens | External ❗ | 🔘 | NO❗ |
| L | swapExactETHForTokensSupportingFeeOnTransferTokens | External ❗ | 💵 | NO❗ |
| L | swapExactTokensForETHSupportingFeeOnTransferTokens | External ❗ | 🔘 | NO❗ |
| | | | | |
| **REFLECTIONS_TOKEN** | Implementation | Context | | |
| L | CreateToken_PaymentOption | Public ❗ | 💵 | NO❗ |
| L | | External ❗ | 💵 | NO❗ |
| L | Purge_BNB | External ❗ | 🔘 | NO❗ |
| L | Purge_Tokens | External ❗ | 🔘 | NO❗ |
| L | send_BNB | Internal 🔒 | 🔘 | |
| | | | | |
| **JournArt** | Implementation | Context, IERC20 | | |

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| Contract | Type | Bases | | |
|---|---|---|---|---|
| L | | Public ❗ | 🔘 | NO❗ |
| L | Token_Information | External ❗ | | NO❗ |
| L | Contract*SetUp*01_*Fees*on_Buy | External ❗ | 🔘 | onlyOwner |
| L | Contract*SetUp*02_*Fees*on_Sell | External ❗ | 🔘 | onlyOwner |
| L | Contract*SetUp*03_*Wallet*Limits | External ❗ | 🔘 | onlyOwner |
| L | Contract*SetUp*04__OpenTrade | External ❗ | 🔘 | onlyOwner |
| L | Contract*SetUp*05_*Blacklist*Bots | External ❗ | 🔘 | onlyOwner |
| L | Option_*Deflationary*Burn | External ❗ | 🔘 | onlyOwner |
| L | Option_*No*Fee*Wallet*Transfers | Public ❗ | 🔘 | onlyOwner |
| L | Update*Project*Wallets | External ❗ | 🔘 | onlyOwner |
| L | Update*Project*Links | External ❗ | 🔘 | onlyOwner |
| L | Maintenance_*Remove*Contract_Fee | External ❗ | 💵 | onlyOwner |
| L | Maintenance_*Add*Liquidity_Pair | External ❗ | 🔘 | onlyOwner |
| L | Maintenance_*Transfer*Ownership | Public ❗ | 🔘 | onlyOwner |
| L | Maintenance_*Renounce*Ownership | Public ❗ | 🔘 | onlyOwner |

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| Contract | Type | Bases | | |
|---|---|---|---|---|
| L | Processing_*Auto*Process | External ❗ | 🔘 | onlyOwner |
| L | Processing_*Process*Now | External ❗ | 🔘 | onlyOwner |
| L | Processing_*Swap*Trigger_Count | External ❗ | 🔘 | onlyOwner |
| L | Processing_*Remove*Random_Tokens | External ❗ | 🔘 | onlyOwner |
| L | Rewards*Exclude*Wallet | Public ❗ | 🔘 | onlyOwner |
| L | Rewards*Include*Wallet | External ❗ | 🔘 | onlyOwner |
| L | Wallet*SettingsExclude*From_Fees | External ❗ | 🔘 | onlyOwner |
| L | Wallet*SettingsExempt*From_Limits | External ❗ | 🔘 | onlyOwner |
| L | Wallet*SettingsPreLaunch*Access | External ❗ | 🔘 | onlyOwner |
| L | owner | Public ❗ | | NO❗ |
| L | name | Public ❗ | | NO❗ |
| L | symbol | Public ❗ | | NO❗ |
| L | decimals | Public ❗ | | NO❗ |
| L | totalSupply | Public ❗ | | NO❗ |
| L | balanceOf | Public ❗ | | NO❗ |
| L | allowance | Public ❗ | | NO❗ |
| L | increaseAllowance | Public ❗ | 🔘 | NO❗ |
| L | decreaseAllowance | Public ❗ | 🔘 | NO❗ |

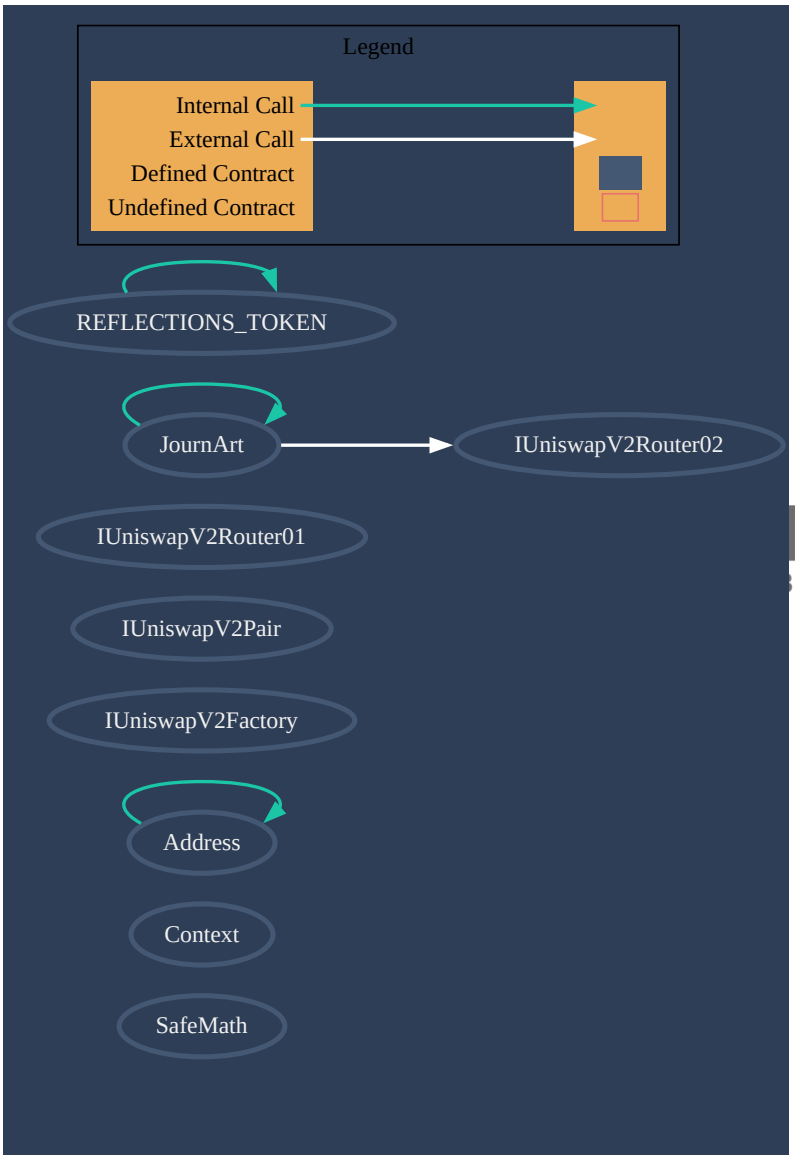
## FULL AUDIT REPORT

| Contract | Type | Bases | | |
|---|---|---|---|---|
| L | approve | Public ❗ | 🛑 | NO❗ |
| L | _approve | Private 🔐 | 🛑 | |
| L | tokenFromReflection | Internal 🔒 | | |
| L | _getRate | Private 🔐 | | |
| L | _getCurrentSupply | Private 🔐 | | |
| L | transfer | Public ❗ | 🛑 | NO❗ |
| L | transferFrom | Public ❗ | 🛑 | NO❗ |
| L | send_BNB | Internal 🔒 | 🛑 | |
| L | _transfer | Private 🔐 | 🛑 | |
| L | swapAndLiquify | Private 🔐 | 🛑 | |
| L | swapTokensForBNB | Private 🔐 | 🛑 | |
| L | addLiquidity | Private 🔐 | 🛑 | |
| L | _tokenTransfer | Private 🔐 | 🛑 | |
| L | | External ❗ | 💵 | NO❗ |

Legend

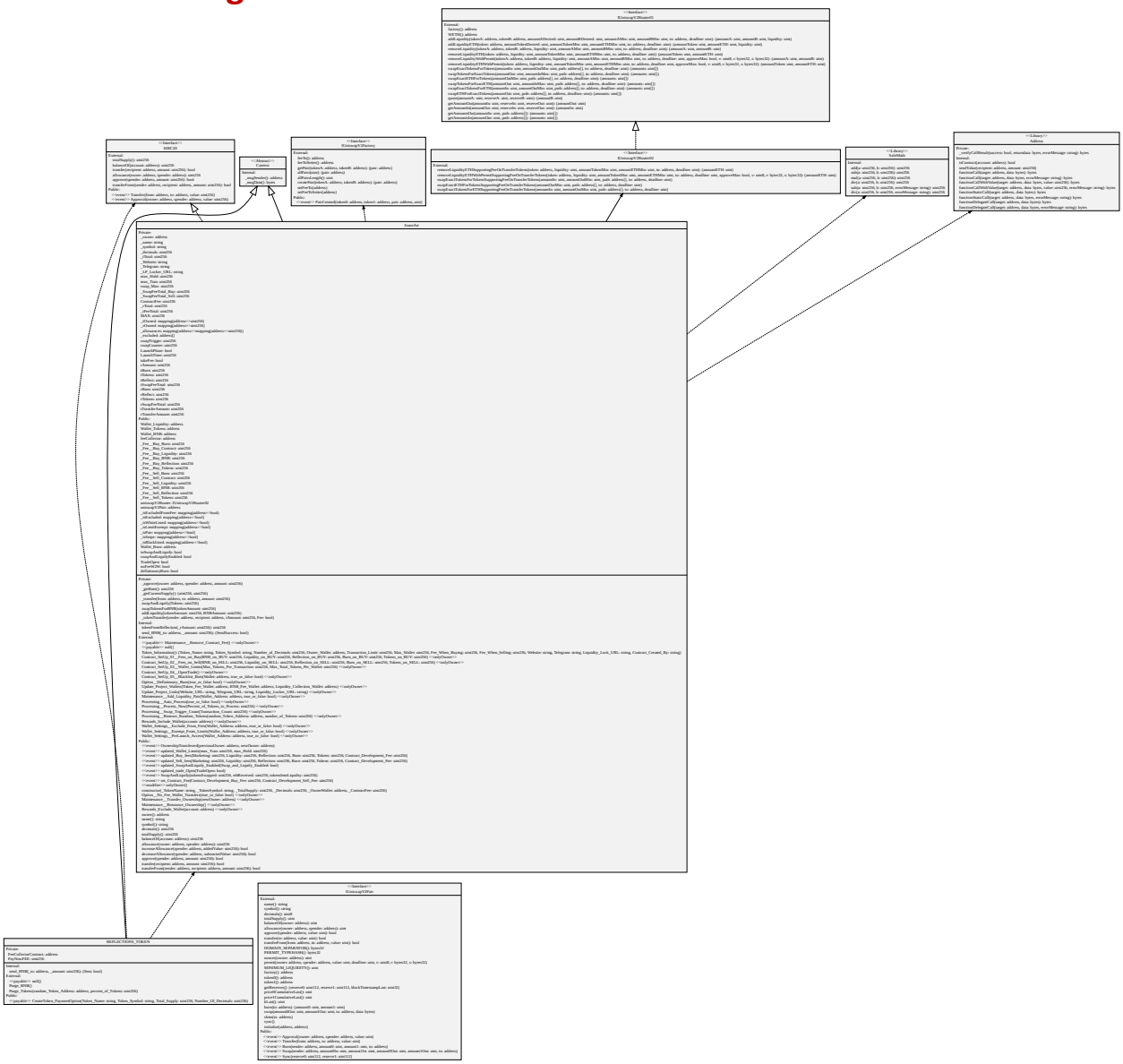
| Symbol | Meaning |
|---|---|
| 🛑 | Function can modify state |
| 💵 | Function is payable |

## Inheritate Function Relation Graph



## FULL AUDIT REPORT

# UML Class Diagram



FULL AUDIT REPORT

## About SECURI LAB

SECURI LAB is a group of cyber security experts providing cyber security consulting, smart contract security audits, and KYC services.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