



SMART CONTRACT AUDIT REPORT

For

Zahoo Token (Zahoo)



Prepared By: SFI Team

Prepared on: Jul 17, 2024
0xa2279daf69A829A9A84A3Bf036e98b040B46c914

Prepared for: Zahoo Team

Contract address:
0xa2279daf69A829A9A84A3Bf036e98b040B46c914

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• 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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• Scope of the audit

The scope of this audit was to analyze and document the Zahoo Token smart contract codebase for quality, security, and correctness.

• Introduction

During the period of **Jul 8, 2024, to Jul 10, 2024** - SaferICO

Team performed a security audit for **Zahoo Token** smart contracts.

The project has 1 file. It contains approx 175 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.

Source Code <https://polygonscan.com/address/0xa2279daf69A829A9A84A3Bf036e98b040B46c914#code>

Check Vulnerabilities

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. Compiler 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.

• Issue Categories

Every issue in this report has been assigned to a severity level. There are four levels of severity, and each of them has been explained below.

Risk-level	Description
High	A high severity issue or vulnerability means that your smart contract can be exploited. Issues on this level are critical to the smart contract's performance or functionality, and we recommend these issues be fixed before moving to a live environment.
Medium	The issues marked as medium severity usually arise because of errors and deficiencies in the smart contract code. Issues on this level could potentially bring problems, and they should still be fixed.
Low	Low-level severity issues can cause minor impact and or are just warnings that can remain unfixed for now. It would be better to fix these issues at some point in the future.
Informational	These are severity issues that indicate an improvement request, a general question, a cosmetic or documentation error, or a request for information. There is low-to-no impact.

• Issues Found – Code Review

High severity issues

There are no High severity vulnerabilities found.

Medium severity issues

There are no Low severity vulnerabilities found .

Low severity issues

#Pragma version not fixed

Description

It is a good practice to lock the solidity version for a live deployment (use 0.8.26 instead of ^0.8.0). contracts should be deployed with the same compiler version and flags that they have been tested the most with. Locking the pragma helps ensure that contracts do not accidentally get deployed using, for example, the latest compiler which may have higher risks of undiscovered bugs. Contracts may also be deployed by others and the pragma indicates the compiler version intended by the original authors.

Remediation

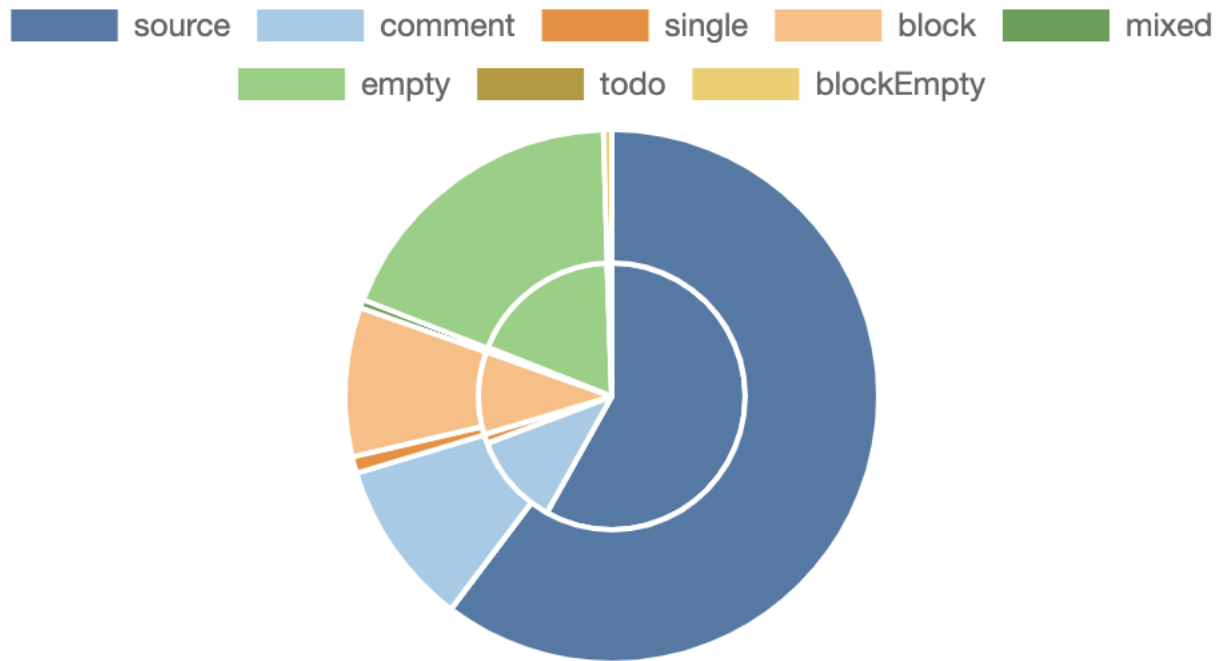
Remove the ^ sign to lock the pragma version.

Status: [Acknowledged](#).

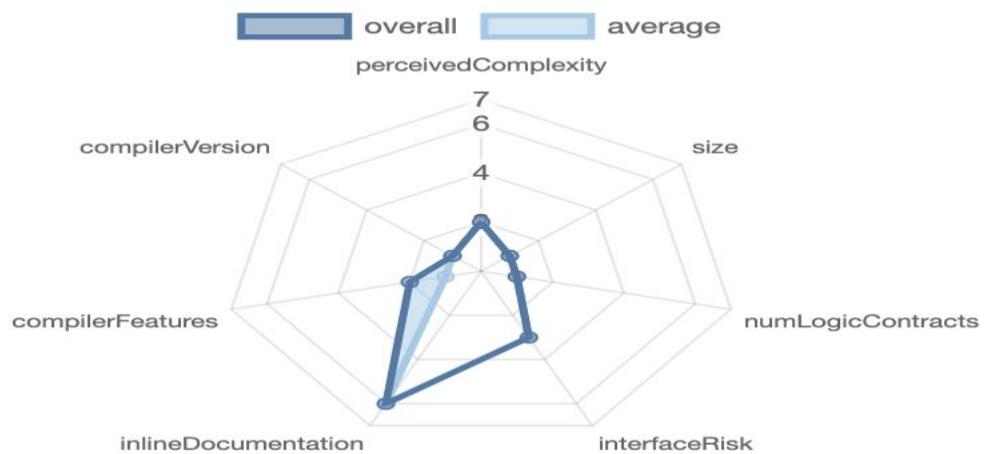
Informational issues

There are no Informational found .

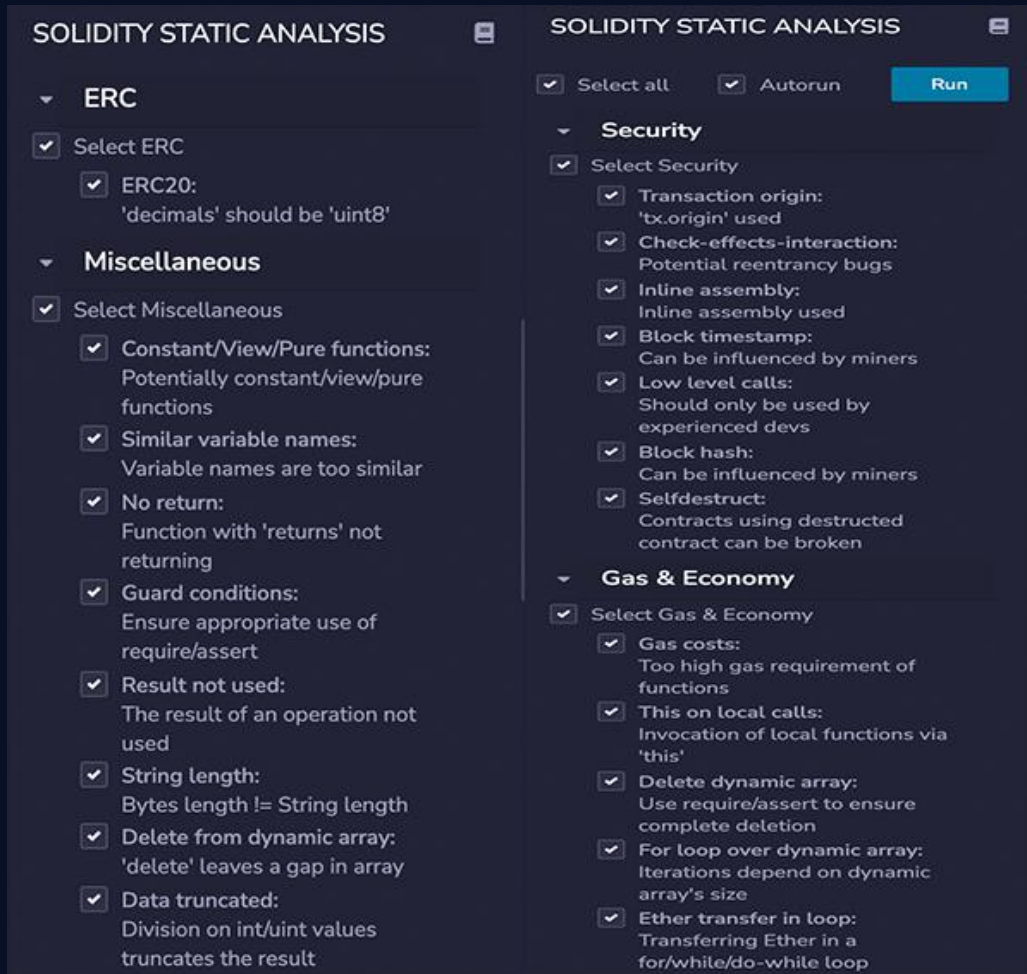
- Source Lines



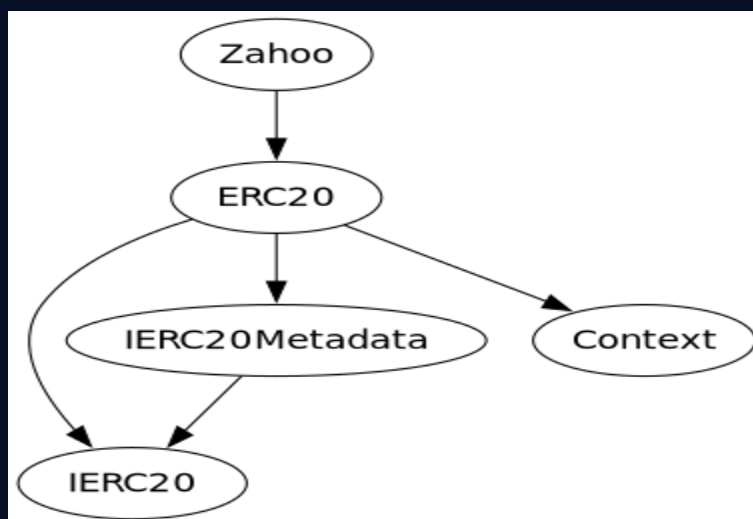
- Risk Level



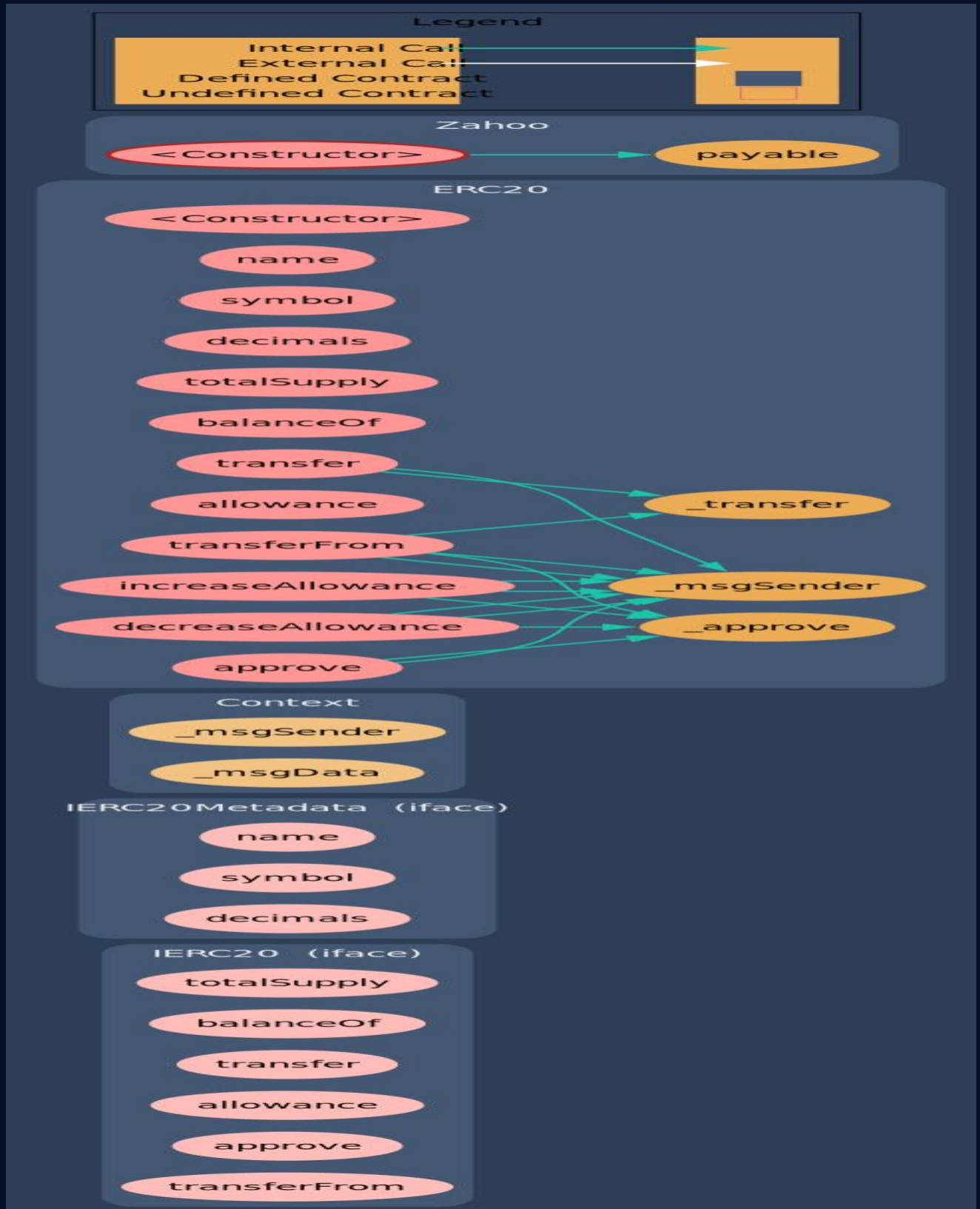
- Solidity Static Analysis



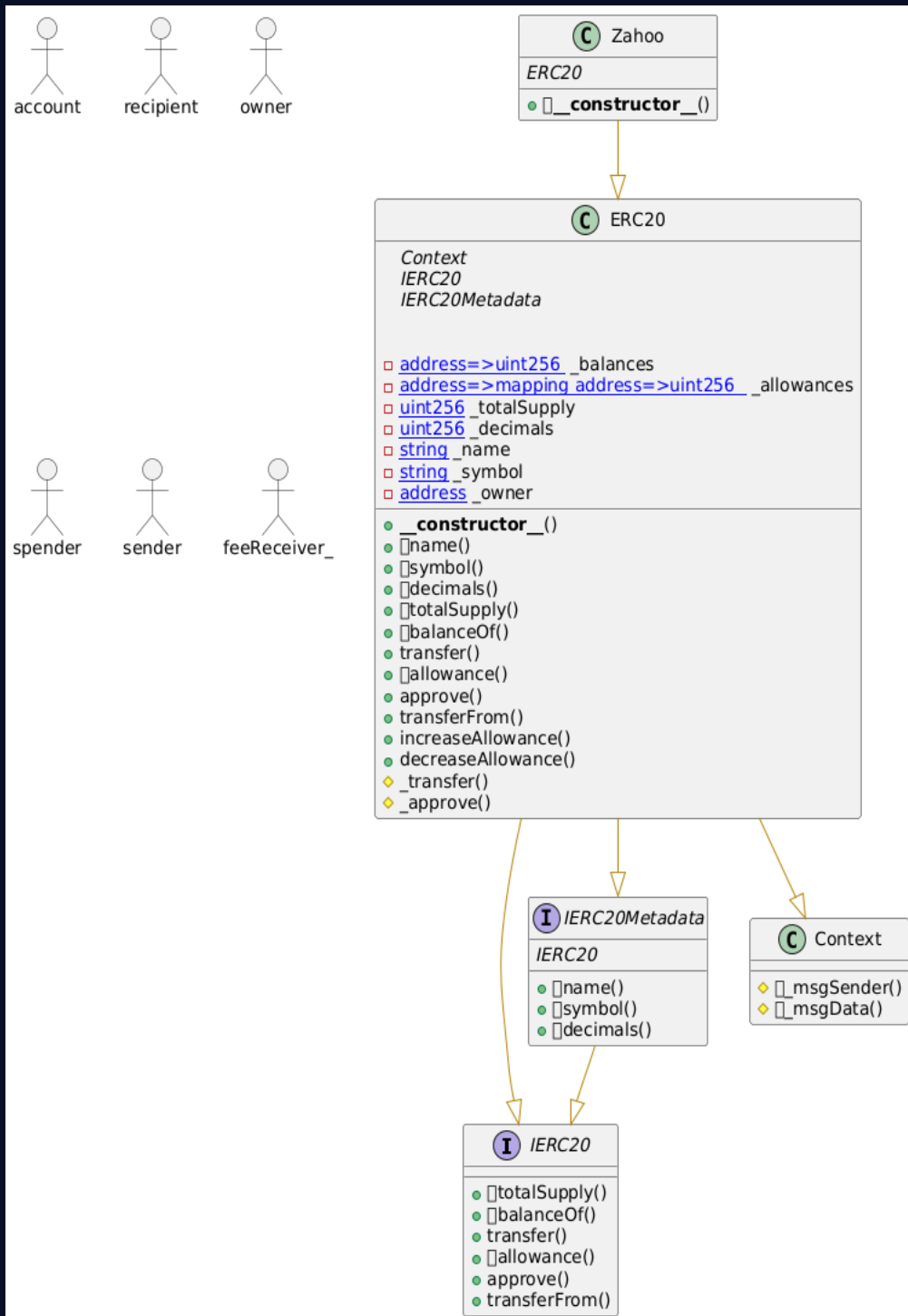
- Inheritance graph



Call Graph



- Unified Modeling Language (UML)



• Capabilities

Components

 Contracts	 Libraries	 Interfaces	 Abstract
2	0	2	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
20	1

External	Internal	Private	Pure	View
9	15	0	0	14

StateVariables

Total	 Public
7	0

Capabilities




Solidity Versions observed	 Experimental Features	 Can Receive Funds	 Uses Assembly	 Has Destroyable Contracts	
<input type="text" value="^0.8.0"/>	<input type="text"/>	<input type="text" value="yes"/>	<input type="text"/>	<input type="text"/>	
 Transfers ETH	 Low-Level Calls	 DelegateCall	 Uses Hash Functions	 ECRecover	 New/Create/Create2
<input type="text" value="yes"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

• Source Units In Scope

Source Units in Scope

Source Units Analyzed: 1

Source Units in Scope: 1 (100%)

Type	File	Logic Contracts	Interfaces	Lines	nLines	nSLOC	Comment Lines	Complex. Score	Capabilities
	Zahoo.sol	3	2	175	155	104	20	97	
	Totals	3	2	175	155	104	20	97	

Legend: [—]

- **Lines**: total lines of the source unit
- **nLines**: normalized lines of the source unit (e.g. normalizes functions spanning multiple lines)
- **nSLOC**: normalized source lines of code (only source-code lines; no comments, no blank lines)
- **Comment Lines**: lines containing single or block comments
- **Complexity Score**: a custom complexity score derived from code statements that are known to introduce code complexity (branches, loops, calls, external interfaces, ...)

- **Function Signature**

```
| Function Name | Sighash   | Function Signature |
| ----- | ----- | ----- |
| totalSupply | 18160ddd | totalSupply() |
| balanceOf | 70a08231 | balanceOf(address) |
| transfer | a9059cbb | transfer(address,uint256) |
| allowance | dd62ed3e | allowance(address,address) |
| approve | 095ea7b3 | approve(address,uint256) |
| transferFrom | 23b872dd | transferFrom(address,address,uint256) |
| name | 06fdde03 | name() |
| symbol | 95d89b41 | symbol() |
| decimals | 313ce567 | decimals() |
| name | 06fdde03 | name() |
| symbol | 95d89b41 | symbol() |
| decimals | 313ce567 | decimals() |
| totalSupply | 18160ddd | totalSupply() |
| balanceOf | 70a08231 | balanceOf(address) |
| transfer | a9059cbb | transfer(address,uint256) |
| allowance | dd62ed3e | allowance(address,address) |
| approve | 095ea7b3 | approve(address,uint256) |
| transferFrom | 23b872dd | transferFrom(address,address,uint256) |
| increaseAllowance | 39509351 | increaseAllowance(address,uint256) |
| decreaseAllowance | a457c2d7 | decreaseAllowance(address,uint256) |
```

• Automatic General Report

Files Description Table

File Name	SHA-1 Hash
/Users/macbook/Desktop/smart contracts/Zahoo.sol	32e77013df29c2d489d68a899ab35cc899a15bcf

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
IERC20Metadata Interface IERC20				
↳	name	External	🔒	NO
↳	symbol	External	🔒	NO
↳	decimals	External	🔒	NO
Context Implementation				
↳	_msgSender	Internal	🔒	
↳	_msgData	Internal	🔒	
ERC20 Implementation Context, IERC20, IERC20Metadata				
↳	<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| |
| ^ | _transfer | Internal | | | |
| ^ | _approve | Internal | | | |
|||||
| **Zahoo** | Implementation | ERC20 |||
| ^ | <Constructor> | Public | | |ERC20 |

```

Legend

```

| Symbol | Meaning |
|:-----:|:-----|
|  | Function can modify state |
|  | Function is payable |

```

- **Summary of the Audit**

According to all test, the customer`s solidity smart contract is **Well Secure**.

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, 1 low issues, and 0 note.