AuditAce
FROM INCEPTION TO SUCCESS

Smart Contract Audit

FOR

BOB

DATED : 24 MAY 23'

AUDIT SUMMARY

Project name – BOB

Date: 24 May, 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: The code has undergone a line-by-line review by the **Ace** team.

2.ETH Test Network: All tests were conducted on the ETH 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/token/0x8824E512023dF5552aC7E6D8C5cE9C80722AF4e0

Token Information

Name : BOB Coin

Symbol : BOB

Decimals: 18

Network: BSC

Token Type:BEP20

Token Address:
0x547a9DcA1f033bB6c78EF1Bd5CD3574E546cf2D9

Owner:
0xF09a4A4947775Ec20a2D2019F9D623E6aA4E9CF2
(at time of writing the audit)

Deployer:0xF09a4A4947775Ec20a2D2019F9D623E6aA4E9CF2

Token Information

Fees:

Buy Fees: 0%

Sell Fees: 0%

Transfer Fees: 0%

Fees Privilige: No fees

Ownership :

0xF09a4A4947775Ec20a2D2019F9D623E6aA4E9CF2

Minting: None

Max Tx Amount/ Max Wallet Amount: No

Blacklist: No

Other Priviliges:- initial distribution of the 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-by-line 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

- Return values of low-level calls
- Private modifier
- Multiple Sends
- Using Suicide
- Gas Limitand Loops
- Address hardcoded
- Exception Disorder
- Using inline assembly
- Divide before multiply
- Missing Zero Address Validation
- Compiler version not fixed
- **Gasless Send**
- Using block.timestamp
- Re-entrancy
- Tautology or contradiction
- Timestamp Dependence
- Revert/require functions
- Use of tx.origin
- Integer overflow/underflow
- Dangerous strict equalities
- Using SHA3
- Using throw

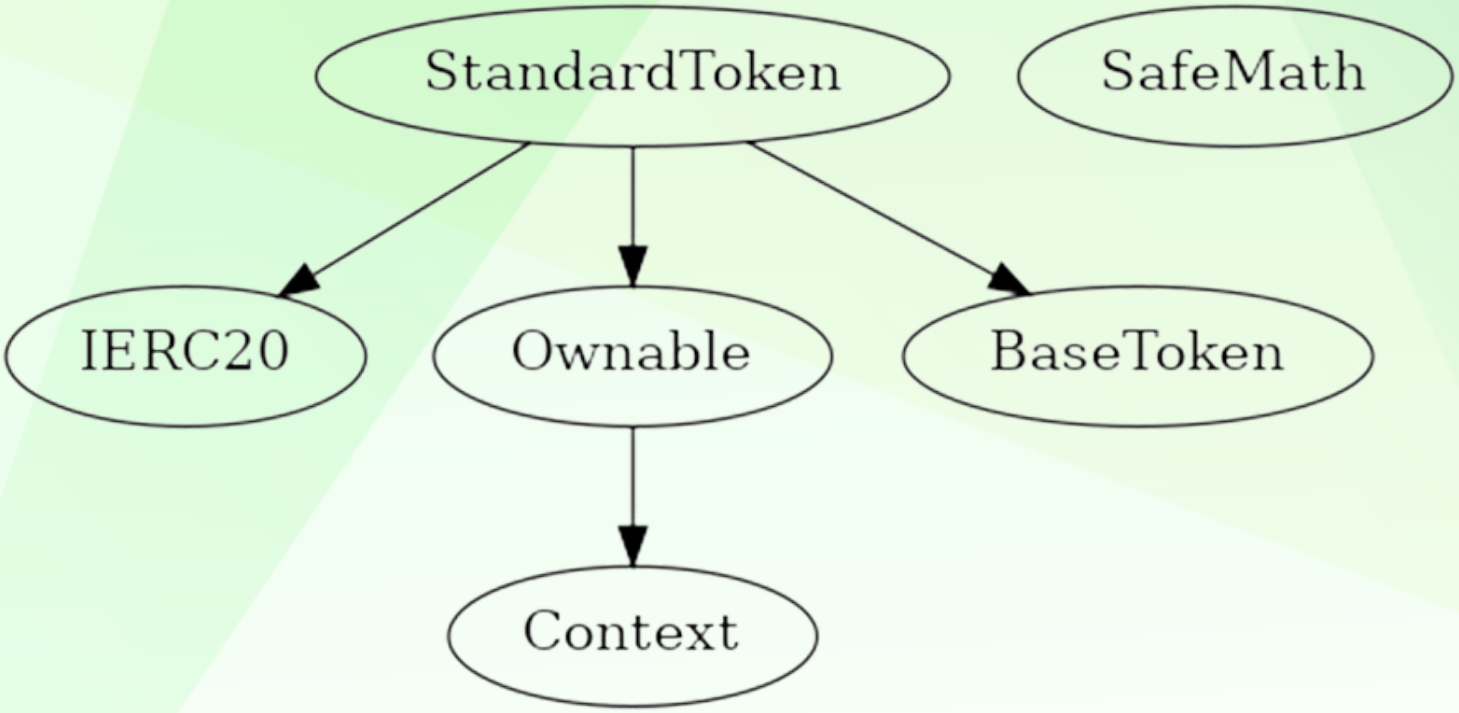
CLASSIFICATION OF RISK

Severity	Description
Critical	These vulnerabilities could be exploited easily and can lead to asset loss, data loss, asset, or data manipulation. They should be fixed right away.
High-Risk	A vulnerability that affects the desired outcome when using a contract, or provides the opportunity to use a contract in an unintended way.
Medium-Risk	A vulnerability that could affect the desired outcome of executing the contract in a specific scenario.
Low-Risk	A vulnerability that does not have a significant impact on possible scenarios for the use of the contract and is probably subjective.
Gas Optimization /Suggestion	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
Gas Optimization / Suggestions	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 ❗
└	balanceOf	External ❗		NO ❗
└	transfer	External ❗	🛑	NO ❗
└	allowance	External ❗		NO ❗
└	approve	External ❗	🛑	NO ❗
└	transferFrom	External ❗	🛑	NO ❗
Context	Implementation			
└	_msgSender	Internal 🔒		
└	_msgData	Internal 🔒		
Ownable	Implementation	Context		
└	<Constructor>	Public ❗	🛑	NO ❗
└	owner	Public ❗		NO ❗
└	renounceOwnership	Public ❗	🛑	onlyOwner
└	transferOwnership	Public ❗	🛑	onlyOwner
└	_setOwner	Private 🔐	🛑	
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 🔒		
BaseToken	Implementation			
StandardToken	Implementation	IERC20, Ownable, BaseToken		
└	<Constructor>	Public ❗	💵	NO ❗
└	name	Public ❗		NO ❗

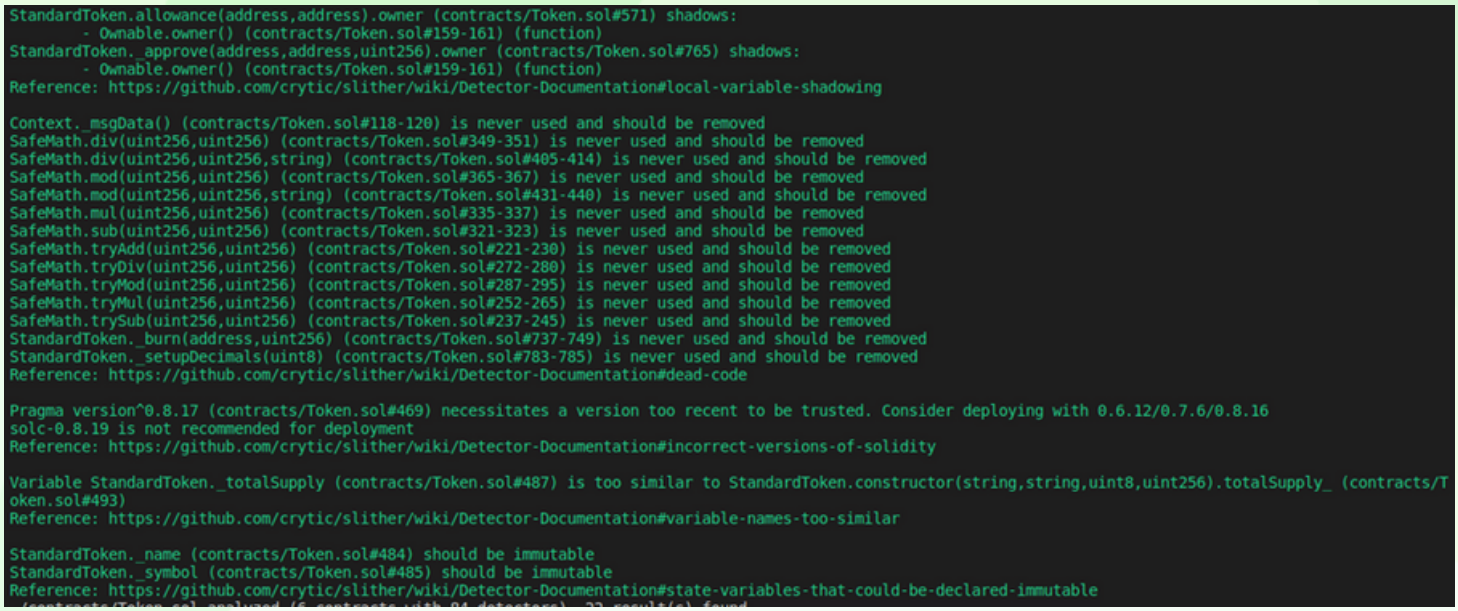
CONTRACT ASSESMENT

└	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 🔒	🛑		
└	_mint	Internal 🔒	🛑		
└	_burn	Internal 🔒	🛑		
└	_approve	Internal 🔒	🛑		
└	_setupDecimals	Internal 🔒	🛑		
└	_beforeTokenTransfer	Internal 🔒	🛑		

Legend

Symbol	Meaning
🛑	Function can modify state
💵	Function is payable

STATIC ANALYSIS



```
StandardToken.allowance(address,address).owner (contracts/Token.sol#571) shadows:
        - Ownable.owner() (contracts/Token.sol#159-161) (function)
StandardToken._approve(address,address,uint256).owner (contracts/Token.sol#765) shadows:
        - Ownable.owner() (contracts/Token.sol#159-161) (function)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing

Context._msgData() (contracts/Token.sol#118-120) is never used and should be removed
SafeMath.div(uint256,uint256) (contracts/Token.sol#349-351) is never used and should be removed
SafeMath.div(uint256,uint256,string) (contracts/Token.sol#405-414) is never used and should be removed
SafeMath.mod(uint256,uint256) (contracts/Token.sol#365-367) is never used and should be removed
SafeMath.mod(uint256,uint256,string) (contracts/Token.sol#431-440) is never used and should be removed
SafeMath.mul(uint256,uint256) (contracts/Token.sol#335-337) is never used and should be removed
SafeMath.sub(uint256,uint256) (contracts/Token.sol#321-323) is never used and should be removed
SafeMath.tryAdd(uint256,uint256) (contracts/Token.sol#221-230) is never used and should be removed
SafeMath.tryDiv(uint256,uint256) (contracts/Token.sol#272-280) is never used and should be removed
SafeMath.tryMod(uint256,uint256) (contracts/Token.sol#287-295) is never used and should be removed
SafeMath.tryMul(uint256,uint256) (contracts/Token.sol#252-265) is never used and should be removed
SafeMath.trySub(uint256,uint256) (contracts/Token.sol#237-245) is never used and should be removed
StandardToken._burn(address,uint256) (contracts/Token.sol#737-749) is never used and should be removed
StandardToken._setupDecimals(uint8) (contracts/Token.sol#783-785) 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#469) necessitates a version too recent to be trusted. Consider deploying with 0.6.12/0.7.6/0.8.16
solc-0.8.19 is not recommended for deployment
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#incorrect-versions-of-solidity

Variable StandardToken._totalSupply (contracts/Token.sol#487) is too similar to StandardToken.constructor(string,string,uint8,uint256).totalSupply_ (contracts/T
oken.sol#493)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar

StandardToken._name (contracts/Token.sol#484) should be immutable
StandardToken._symbol (contracts/Token.sol#485) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
```

Static Analysis

an static analysis of the code were performed using slither. No issues were found

FUNCTIONAL TESTING

Router (PCS V2):
0xD99D1c33F9fC3444f8101754aBC46c52416550D1

1- Adding liquidity (passed):
https://testnet.bscscan.com/tx/0x9046f0b7e21e74da6b912dd623c38bffe306cb8e41766096e22a04634cc299e8

2- Buying (0% tax) (passed):
https://testnet.bscscan.com/tx/0x55b3f0d12b8fbf1343a0d7ff5bf814f07775fa7dc0e707d41288d96b597018c1

3- Selling (0% tax) (passed):
https://testnet.bscscan.com/tx/0xa4deeb56d188f1f64bd707463ff500864858754l9906f75226d1fe708612b265

4- Transferring 0% tax) (passed):
https://testnet.bscscan.com/tx/0xf5862772bb94f5a05ca2749faa4fd2e1e69db35f9b3b47d20027ac4e95c6f287

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