expelee

A Secure Place For Web3

SMART CONTRACT AUDIT OF

FOOTBALL MOON Fair Launch

Contract Address

0x3292FBF18C8C47dd406c4720772807C239794533

Audit Summary

Expelee team has performed a line-by-line manual analysis and automated review of the smart contract. The smart contract was analysed mainly for common smart contract vulnerabilities, exploits, and manipulation hacks. According to the smart contract audit:

Audit Result: **PASSED**

Ownership: NOT **RENOUNCED**

KYC Verification: Done

Audit Date: 30/07/2022

Audit Team: **EXPELEE**

Be aware that smart contracts deployed on the blockchain aren't resistant to internal exploit, external vulnerability, or hack. For a detailed understanding of risk severity, source code vulnerability, functional hack, and audit disclaimer, kindly refer to the audit.

DISCLAMER

All the content provided in this document is for general information only and should not be used as financial advice or a reason to buy any investment. Team provides no guarantees against the sale of team tokens or the removal of liquidity by the project audited in this document.

Always Do your own research and protect yourselves from being scammed. The Expelee team has audited this project for general information and only expresses their opinion based on similar projects and checks from popular diagnostic tools.

Under no circumstances did Expelee receive a payment to manipulate those results or change the awarding badge that we will be adding in our website. Always Do your own research and protect yourselves from scams.

This document should not be presented as a reason to buy or not buy any particular token. The Expelee team disclaims any liability for the resulting losses.

Contract Review

Contract Name	BABYTOKEN
Compiler Version	v0.8.4+commit.c7e474f2
Optimization	Yes with 200 runs
License	MIT license
Explorer	https://bscscan.com/address/0x3292FBF18C8C47dd406c4720772807C239794533#code
Symbol	FMOON
Decimals	18
Total Supply	1,000,000,000
Domain	https://footballmoon.space/

Project Review

Token Name: FOOTBALL MOON

Web Site: https://footballmoon.space/

Twitter: https://twitter.com/FootballmoonBsc

Telegram: https://t.me/FootballMoonOfficial

Contract Address:
0x3292FBF18C8C47dd406c4720772807C239794533

Platform: Binance Smart Chain

Token Type: BEP 20

Language: SOLIDITY

Audit Methodology

The scope of this report is to audit the smart contract source code. We have scanned the contract and reviewed the project for common vulnerabilities, exploits, hacks, and back-doors. Below is the list of commonly known smart contract vulnerabilities, exploits, and hacks:

Category

Smart Contract Vulnerabilities	- Unhandled Exceptions - Transaction Order Dependency - Integer Overflow - Unrestricted Action - Incorrect Inheritance Order - Typographical Errors - Requirement Violation
Source Code Review	- Gas Limit and Loops - Deployment Consistency - Repository Consistency - Data Consistency - Token Supply Manipulation
Functional Assessment	- Operations Trail & Event Generation - Assets Manipulation - Liquidity Access

Vulnerability Checklist

№	Description.	Result
1	Compiler warnings.	Passed
2	Race conditions and Re-entrancy. Cross-function raceconditions.	Passed
3	Possible delays in data delivery.	Passed
4	Oracle calls.	Passed
5	Front running.	Passed
6	Timestamp dependence.	Passed
7	Integer Overflow and Underflow.	Passed
8	DoS with Revert.	Passed
9	DoS with block gas limit.	Passed
10	Methods execution permissions.	Passed
11	Economy model.	Passed
12	The impact of the exchange rate on the logic.	Passed
13	Private user data leaks.	Passed
14	Malicious Event log.	Passed
15	Scoping and Declarations.	Passed
16	Uninitialized storage pointers.	Passed
17	Arithmetic accuracy.	Passed
18	Design Logic.	Passed
19	Cross-function race conditions.	Passed
20	Safe Zeppelin module.	Passed
21	Fallback function security.	Passed

Manual Audit

🟢 **Low-Risk**

🟢 4 low-risk code issues found

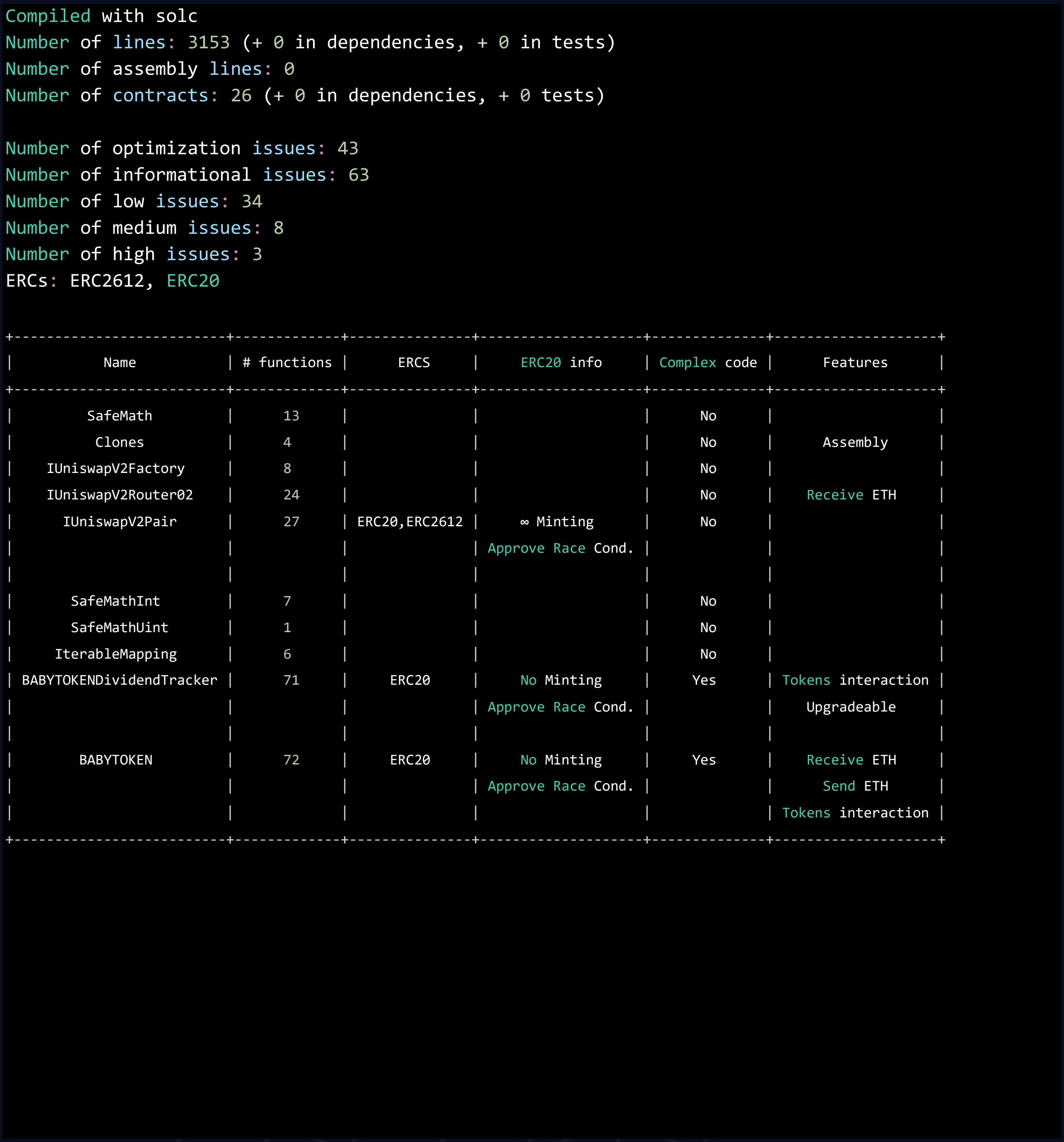
🟡 **Medium-Risk**

🟡 0 medium-risk code issues found

🔴 **High-Risk**

🔴 0 high-risk code issues found

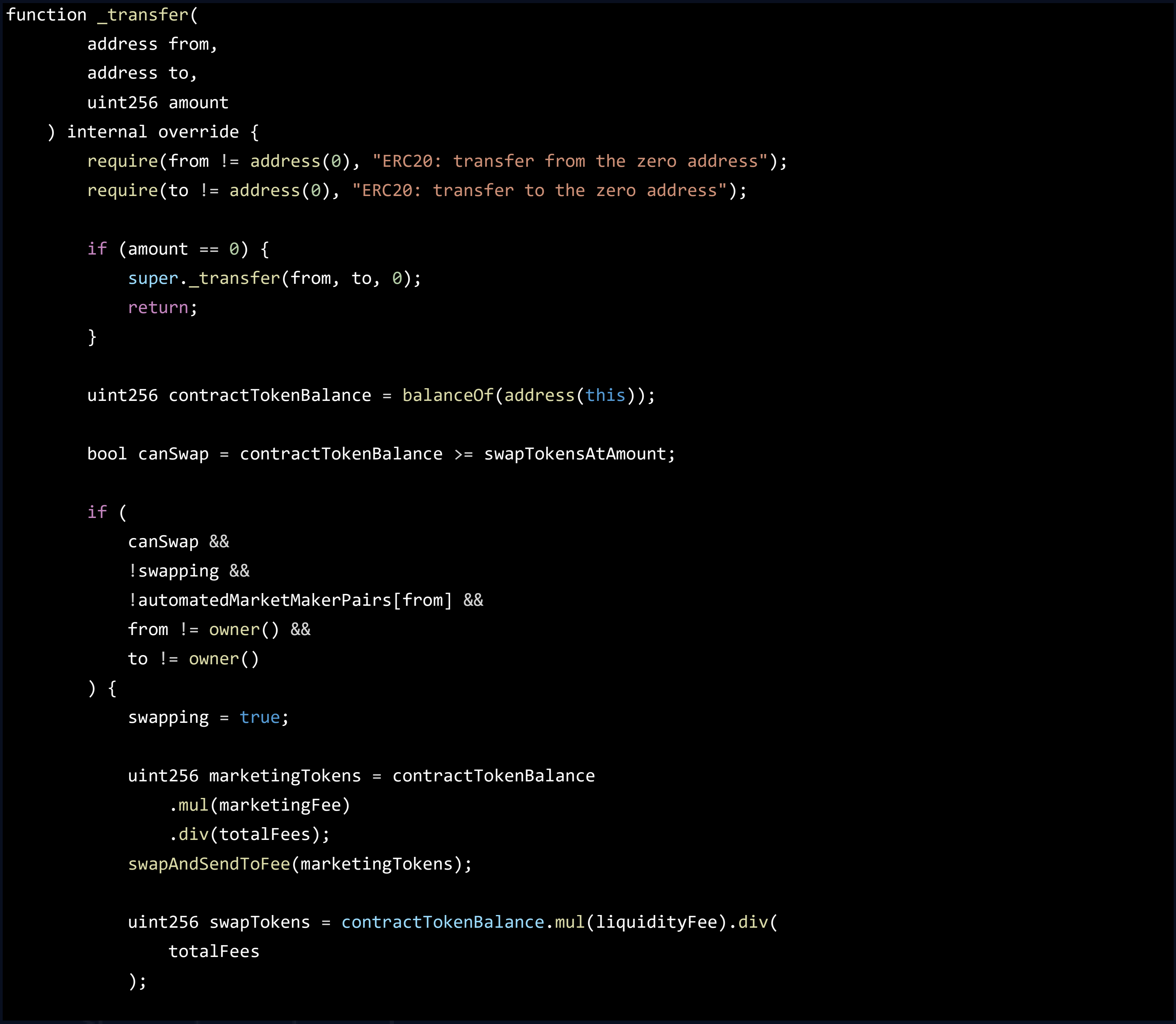
Audit Summary



```
Compiled with solc
Number of lines: 3153 (+ 0 in dependencies, + 0 in tests)
Number of assembly lines: 0
Number of contracts: 26 (+ 0 in dependencies, + 0 tests)

Number of optimization issues: 43
Number of informational issues: 63
Number of low issues: 34
Number of medium issues: 8
Number of high issues: 3
ERCs: ERC2612, ERC20

+--------------------------+-------------+---------------+--------------------+--------------+--------------------+
|           Name           | # functions |      ERCS     |     ERC20 info     | Complex code |      Features      |
+--------------------------+-------------+---------------+--------------------+--------------+--------------------+
|         SafeMath         |      13     |               |                    |      No      |                    |
|          Clones          |      4      |               |                    |      No      |      Assembly      |
|     IUniswapV2Factory    |      8      |               |                    |      No      |                    |
|    IUniswapV2Router02    |      24     |               |                    |      No      |    Receive ETH     |
|      IUniswapV2Pair      |      27     | ERC20,ERC2612 |     ∞ Minting      |      No      |                    |
|                          |             |               | Approve Race Cond. |              |                    |
|                          |             |               |                    |              |                    |
|       SafeMathInt        |      7      |               |                    |      No      |                    |
|       SafeMathUint       |      1      |               |                    |      No      |                    |
|      IterableMapping     |      6      |               |                    |      No      |                    |
| BABYTOKENDividendTracker |      71     |     ERC20     |     No Minting     |     Yes      | Tokens interaction |
|                          |             |               | Approve Race Cond. |              |    Upgradeable     |
|                          |             |               |                    |              |                    |
|        BABYTOKEN         |      72     |     ERC20     |     No Minting     |     Yes      |    Receive ETH     |
|                          |             |               | Approve Race Cond. |              |      Send ETH      |
|                          |             |               |                    |              | Tokens interaction |
+--------------------------+-------------+---------------+--------------------+--------------+--------------------+
```

● Low-Risk

1) Contract contains Reentrancy vulnuerabilities



```
function _transfer(
        address from,
        address to,
        uint256 amount
    ) internal override {
        require(from != address(0), "ERC20: transfer from the zero address");
        require(to != address(0), "ERC20: transfer to the zero address");

        if (amount == 0) {
            super._transfer(from, to, 0);
            return;
        }

        uint256 contractTokenBalance = balanceOf(address(this));

        bool canSwap = contractTokenBalance >= swapTokensAtAmount;

        if (
            canSwap &&
            !swapping &&
            !automatedMarketMakerPairs[from] &&
            from != owner() &&
            to != owner()
        ) {
            swapping = true;

            uint256 marketingTokens = contractTokenBalance
                .mul(marketingFee)
                .div(totalFees);
            swapAndSendToFee(marketingTokens);

            uint256 swapTokens = contractTokenBalance.mul(liquidityFee).div(
                totalFees
            );
```

Recommendation

Apply the check-effects-interaction pattern.

2) Unused Return

The return value of an external call is not stored in a local or state variable.

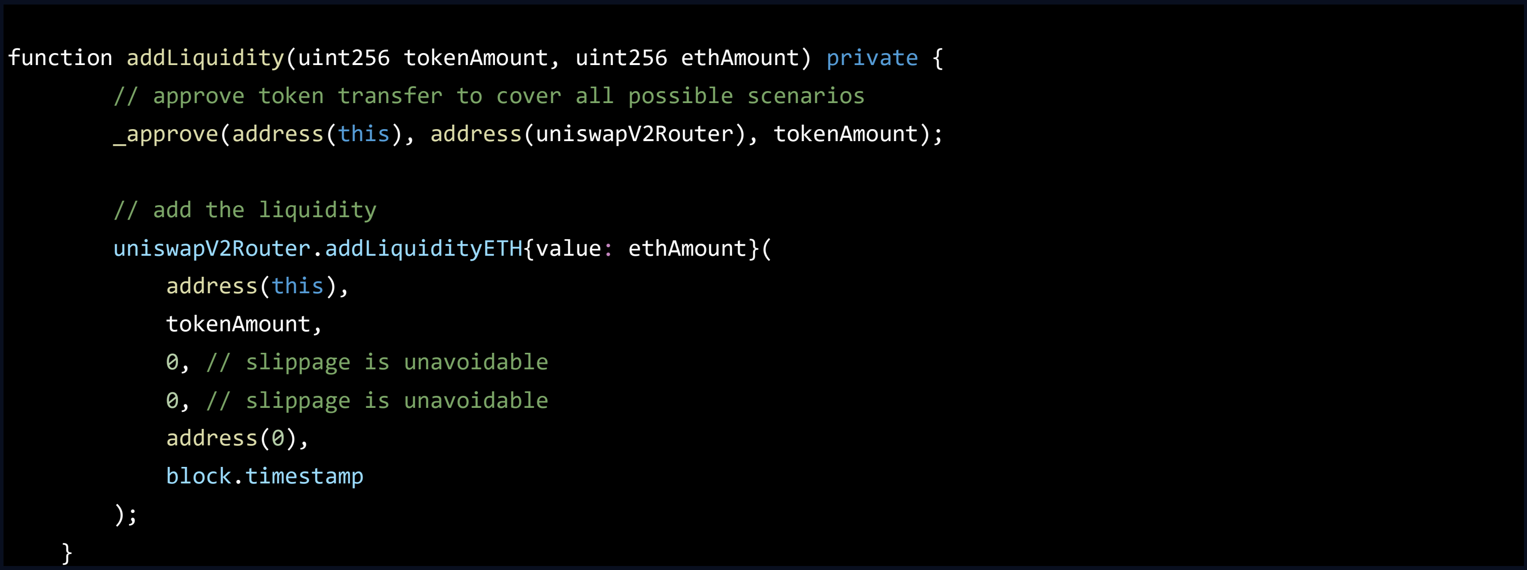
```
function claim() external {
        dividendTracker.processAccount(payable(msg.sender), false);
   }
```

Recommendation

Ensure that all the return values of the function calls are used.

3) Functions that send Ether to arbitary destinations

Unprotected call to a function sending Ether to arbitary address.



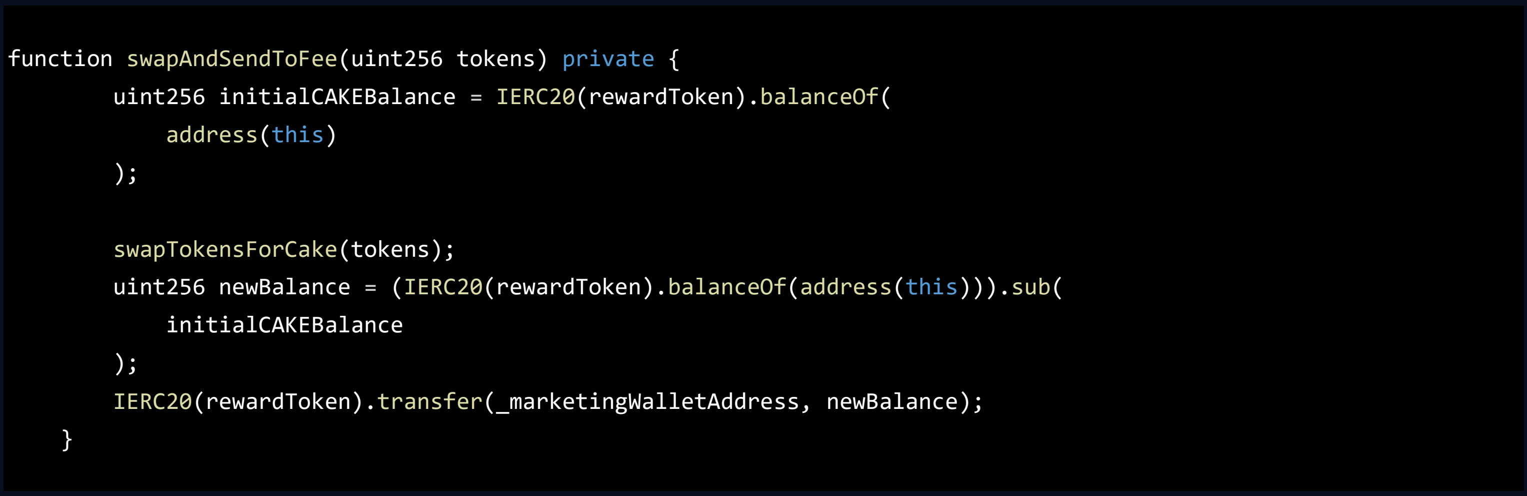
```
function addLiquidity(uint256 tokenAmount, uint256 ethAmount) private {
        // approve token transfer to cover all possible scenarios
        _approve(address(this), address(uniswapV2Router), tokenAmount);

        // add the liquidity
        uniswapV2Router.addLiquidityETH{value: ethAmount}(
            address(this),
            tokenAmount,
            0, // slippage is unavoidable
            0, // slippage is unavoidable
            address(0),
            block.timestamp
        );
    }
```

Recommendation

Ensure that an arbitary user cannot withdraw unauthorized funds

4) Unchecked transfer

The return value of an external transfer/transferFrom call is not checked.

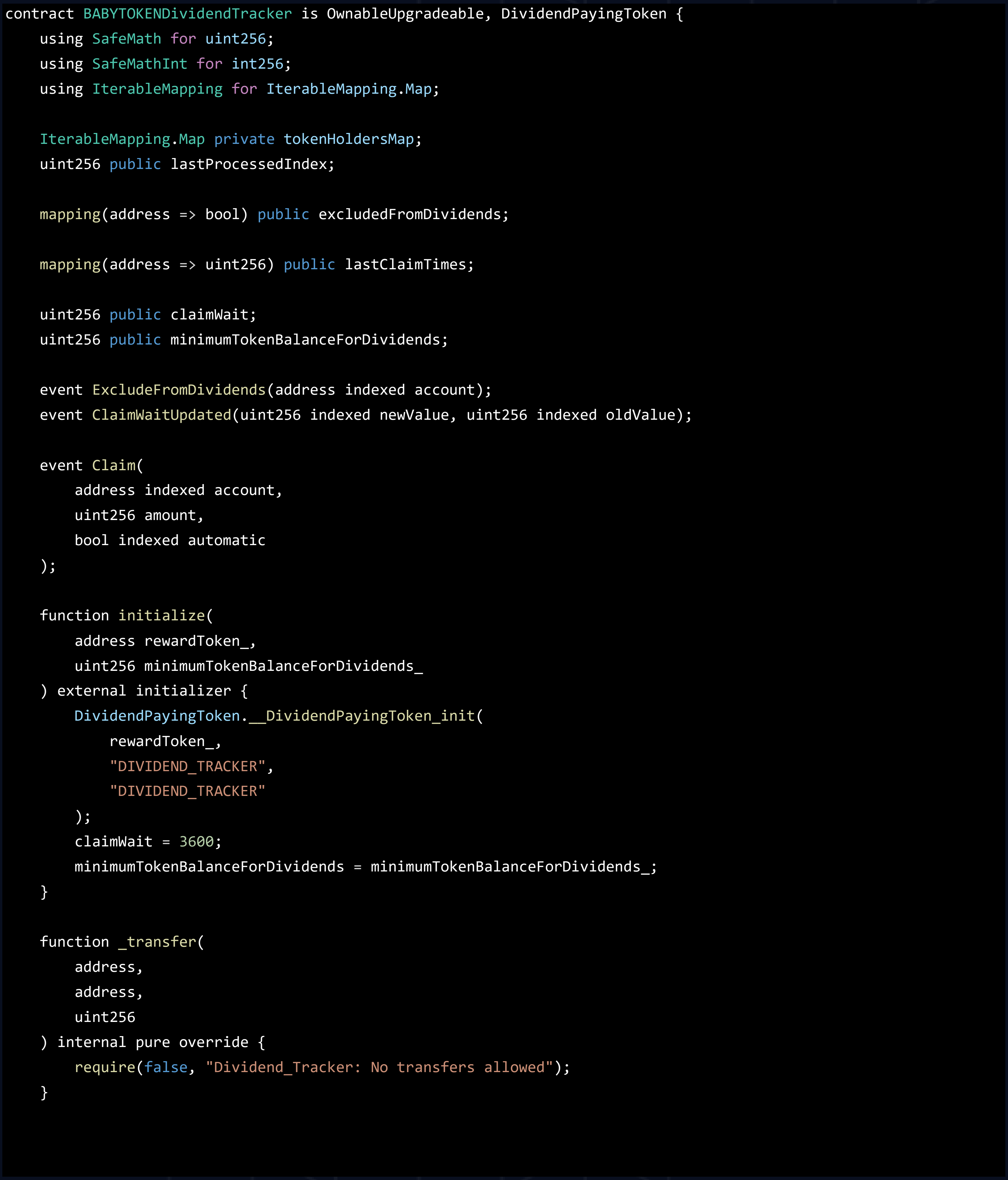


```
function swapAndSendToFee(uint256 tokens) private {
        uint256 initialCAKEBalance = IERC20(rewardToken).balanceOf(
            address(this)
        );

        swapTokensForCake(tokens);
        uint256 newBalance = (IERC20(rewardToken).balanceOf(address(this))).sub(
            initialCAKEBalance
        );
        IERC20(rewardToken).transfer(_marketingWalletAddress, newBalance);
    }
```

Recommendation

Use SafeERC20, or ensure that the transfer/transferFrom return value is checked.

Manual Audit (Contract Function)



```
contract BABYTOKENDividendTracker is OwnableUpgradeable, DividendPayingToken {
    using SafeMath for uint256;
    using SafeMathInt for int256;
    using IterableMapping for IterableMapping.Map;

    IterableMapping.Map private tokenHoldersMap;
    uint256 public lastProcessedIndex;

    mapping(address => bool) public excludedFromDividends;

    mapping(address => uint256) public lastClaimTimes;

    uint256 public claimWait;
    uint256 public minimumTokenBalanceForDividends;

    event ExcludeFromDividends(address indexed account);
    event ClaimWaitUpdated(uint256 indexed newValue, uint256 indexed oldValue);

    event Claim(
        address indexed account,
        uint256 amount,
        bool indexed automatic
    );

    function initialize(
        address rewardToken_,
        uint256 minimumTokenBalanceForDividends_
    ) external initializer {
        DividendPayingToken.__DividendPayingToken_init(
            rewardToken_,
            "DIVIDEND_TRACKER",
            "DIVIDEND_TRACKER"
        );
        claimWait = 3600;
        minimumTokenBalanceForDividends = minimumTokenBalanceForDividends_;
    }

    function _transfer(
        address,
        address,
        uint256
    ) internal pure override {
        require(false, "Dividend_Tracker: No transfers allowed");
    }
```

Important Points To Consider

✓ Verified contract source

✓ Token is sellable (not a honeypot) at this time

✗ Ownership renounced or source does not contain an owner contract

✗ Source does not contain a fee modifier

✗ Source does not contain a mint function

✓ Buy fee is less than 10% (8%)

✗ Sell fee is less than 10% (23%)

✓ Owner/creator wallet contains less than 10% of circulating token supply (4.08%)

About Expelee

Expelee is a community driven organisation dedicated to fostering an anti-rug movement. We're here to keep investment safe from fraudsters. We've encountered several rug pulls and know how it feels to be duped, which is why we don't want anybody else to go through the same experience. We are here to raise awareness through our services so that the future of cryptocurrency can be rug-free.

The auditing process focuses to the following considerations with collaboration of an expert team:

- Functionality test of the Smart Contract to determine if proper logic has been followed throughout the whole process.
- Manually detailed examination of the code line by line by experts.
- Live test by multiple clients using Test net.
- Analysing failure preparations to check how the Smart
- Contract performs in case of any bugs and vulnerabilities.
- Checking whether all the libraries used in the code are on the latest version.
- Analysing the security of the on-chain data.

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