Audit Report for **DADA**
Date: 23 January 2024
Audit result: **Fail.**

Token Address: 0x490bE8605051c4876e4A94910a941e3549801D74

Name: DADA

Symbol: DADA

Decimals: 9

Network: Binance Smart Chain

Token Type: BEP-20

Owner: 0x08b52556eF45eD6E5F43e7e1D61A9C62592E11ed

Deployer: 0x08b52556eF45eD6E5F43e7e1D61A9C62592E11ed

Token Supply: 420690000000000000

Checksum: AEde641126e217b2b455d49e77fc41223

Testnet:
https://testnet.bscscan.com/address/0xf4c423970847161454078c545f97c0c3be7f33a8#code

Token Overview:

Buy Fee: 40-100%

Sell Fee: 40-100%

Transfer Fee: 100%

Fee Privilege: Owner

Ownership: Owned

Minting: None

Max Tx: Yes

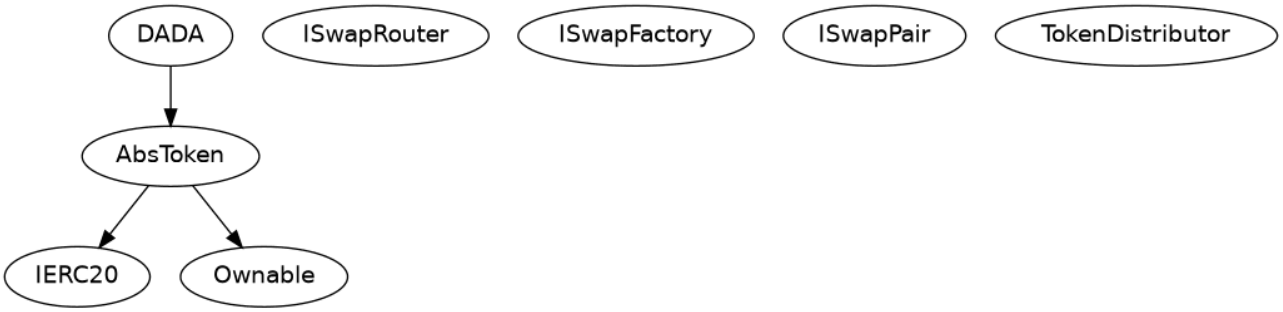
Blacklist: No

Other Privileges:

-Whitelist to transfer without enabling trades

- Enabling trades

Inheritance Tree



Static Analysis

A static analysis of the code was performed using Slither. No issues were found.

```
INFO:Detectors:
AbsToken.swapTokenForFund(uint256) (DADA.sol#504-551) uses arbitrary from in transferFrom: USDT.transferFrom(tokenDistributor,address(this),usdtBalance) (DA
DA.sol#533)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#arbitrary-from-in-transferfrom
INFO:Detectors:
AbsToken.swapTokenForFund(uint256) (DADA.sol#504-551) ignores return value by USDT.transferFrom(tokenDistributor,address(this),usdtBalance) (DADA.sol#533)
AbsToken.swapTokenForFund(uint256) (DADA.sol#504-551) ignores return value by USDT.transfer(fundAddress,fundUsdt) (DADA.sol#537)
AbsToken.swapTokenForFund(uint256) (DADA.sol#504-551) ignores return value by USDT.transfer(rewardAddress,fundUsdt2) (DADA.sol#542)
AbsToken.claimToken(address,uint256) (DADA.sol#670-674) ignores return value by IERC20(token).transfer(fundAddress,amount) (DADA.sol#672)
AbsToken.processReward(uint256) (DADA.sol#718-769) ignores return value by usdt.transfer(shareHolder,amount) (DADA.sol#758)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unchecked-transfer
INFO:Detectors:
AbsToken._tokenTransfer(address,address,uint256,bool,bool,bool) (DADA.sol#410-502) performs a multiplication on the result of a division:
        - feeAmount = tAmount * _transferFee / 10000 (DADA.sol#486)
        - swapAmount = 2 * feeAmount (DADA.sol#490)
AbsToken._tokenTransfer(address,address,uint256,bool,bool,bool) (DADA.sol#410-502) performs a multiplication on the result of a division:
        - fundAmount_scope_4 = tAmount * (_sellFundFee + _sellRewardFee + _sellLPDividendFee + _sellLPFee) / 10000 (DADA.sol#469)
        - numTokensSellToFund = fundAmount_scope_4 * 230 / 100 (DADA.sol#477)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#divide-before-multiply
INFO:Detectors:
Reentrancy in AbsToken._tokenTransfer(address,address,uint256,bool,bool,bool) (DADA.sol#410-502):
        External calls:
        - _tokenTransfer(tokenDistributor,address(this),swapAmount,false,false,false) (DADA.sol#495)
                - _swapRouter.swapExactTokensForTokensSupportingFeeOnTransferTokens(tokenAmount,0,path,fundAddress,block.timestamp) (DADA.sol#561-567)
                - _swapRouter.swapExactTokensForTokensSupportingFeeOnTransferTokens(tokenAmount - lpAmount,0,path,tokenDistributor,block.timestamp) (DADA.so
l#523-529)
                - USDT.transferFrom(tokenDistributor,address(this),usdtBalance) (DADA.sol#533)
                - USDT.transfer(fundAddress,fundUsdt) (DADA.sol#537)
                - USDT.transfer(rewardAddress,fundUsdt2) (DADA.sol#542)
                - _swapRouter.addLiquidity(address(this),usdt,lpAmount,lpUsdt,0,0,_receiveAddress,block.timestamp) (DADA.sol#547-549)
        - swapTokenForFund2(swapAmount) (DADA.sol#496)
                - _swapRouter.swapExactTokensForTokensSupportingFeeOnTransferTokens(tokenAmount,0,path,fundAddress,block.timestamp) (DADA.sol#561-567)
        State variables written after the call(s):
        - swapTokenForFund2(swapAmount) (DADA.sol#496)
                - inSwap = true (DADA.sol#168)
                - inSwap = false (DADA.sol#170)
        AbsToken.inSwap (DADA.sol#126) can be used in cross function reentrancies:
        - AbsToken._tokenTransfer(address,address,uint256,bool,bool,bool) (DADA.sol#410-502)
        - AbsToken.lockTheSwap() (DADA.sol#167-171)
```

```
INFO:Detectors:
AbsToken._transfer(address,address,uint256).takeFee (DADA.sol#287) is a local variable never initialized
AbsToken._transfer(address,address,uint256).isAddLP (DADA.sol#311) is a local variable never initialized
AbsToken._tokenTransfer(address,address,uint256,bool,bool,bool).maxDestroyAmount_scope_3 (DADA.sol#457) is a local variable never initialized
AbsToken._tokenTransfer(address,address,uint256,bool,bool,bool).feeAmount (DADA.sol#419) is a local variable never initialized
AbsToken._tokenTransfer(address,address,uint256,bool,bool,bool).maxDestroyAmount (DADA.sol#433) is a local variable never initialized
AbsToken._transfer(address,address,uint256).isRemoveLP (DADA.sol#312) is a local variable never initialized
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#uninitialized-local-variables
INFO:Detectors:
TokenDistributor.constructor(address) (DADA.sol#100-102) ignores return value by IERC20(token).approve(msg.sender,uint256(~ uint256(0))) (DADA.sol#101)
AbsToken.constructor(address,address,string,string,uint8,uint256,address,address,address,uint256,uint256,uint256) (DADA.sol#173-229) ignores return value by
 IERC20(usdt).approve(address(swapRouter),MAX) (DADA.sol#185)
AbsToken._isAddLiquidity(uint256) (DADA.sol#357-378) ignores return value by (r0,r1) = mainPair.getReserves() (DADA.sol#359)
AbsToken._isRemoveLiquidity() (DADA.sol#380-394) ignores return value by (r0,r1) = mainPair.getReserves() (DADA.sol#382)
AbsToken.swapTokenForFund(uint256) (DADA.sol#504-551) ignores return value by _swapRouter.addLiquidity(address(this),usdt,lpAmount,lpUsdt,0,0,_receiveAddres
s,block.timestamp) (DADA.sol#547-549)
AbsToken.getTokenPrice() (DADA.sol#808-824) ignores return value by (reserve0,reserve1) = swapPair.getReserves() (DADA.sol#810)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#unused-return
INFO:Detectors:
AbsToken.allowance(address,address).owner (DADA.sol#257) shadows:
        - Ownable.owner() (DADA.sol#78-80) (function)
AbsToken._approve(address,address,uint256).owner (DADA.sol#274) shadows:
        - Ownable.owner() (DADA.sol#78-80) (function)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#local-variable-shadowing
INFO:Detectors:
AbsToken.setFundAddress(address).addr (DADA.sol#579) lacks a zero-check on :
                - fundAddress = addr (DADA.sol#580)
AbsToken.setRewardAddress(address).addr (DADA.sol#584) lacks a zero-check on :
                - rewardAddress = addr (DADA.sol#585)
AbsToken.setReceiveAddress(address).addr (DADA.sol#589) lacks a zero-check on :
                - _receiveAddress = addr (DADA.sol#590)
AbsToken.setLPFeeReceiver(address).adr (DADA.sol#795) lacks a zero-check on :
                - _lpFeeReceiver = adr (DADA.sol#796)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#missing-zero-address-validation
```

```
INFO:Detectors:
AbsToken.addHolder(address) (DADA.sol#698-710) uses assembly
        - INLINE ASM (DADA.sol#702)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#assembly-usage
INFO:Detectors:
AbsToken._transfer(address,address,uint256) (DADA.sol#279-355) has a high cyclomatic complexity (17).
AbsToken._tokenTransfer(address,address,uint256,bool,bool,bool) (DADA.sol#410-502) has a high cyclomatic complexity (22).
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#cyclomatic-complexity
INFO:Detectors:
Variable AbsToken._rewardList (DADA.sol#117) is not in mixedCase
Variable AbsToken._DADA (DADA.sol#118) is not in mixedCase
Variable AbsToken._buyDestroyFee (DADA.sol#131) is not in mixedCase
Variable AbsToken._buyFundFee (DADA.sol#132) is not in mixedCase
Variable AbsToken._buyRewardFee (DADA.sol#133) is not in mixedCase
Variable AbsToken._buyLPDividendFee (DADA.sol#134) is not in mixedCase
Variable AbsToken._buyLPFee (DADA.sol#135) is not in mixedCase
Variable AbsToken._sellDestroyFee (DADA.sol#137) is not in mixedCase
Variable AbsToken._sellFundFee (DADA.sol#138) is not in mixedCase
Variable AbsToken._sellRewardFee (DADA.sol#139) is not in mixedCase
Variable AbsToken._sellLPDividendFee (DADA.sol#140) is not in mixedCase
Variable AbsToken._sellLPFee (DADA.sol#141) is not in mixedCase
Variable AbsToken._transferFee (DADA.sol#143) is not in mixedCase
Variable AbsToken._mainPair (DADA.sol#149) is not in mixedCase
Variable AbsToken._limitAmount (DADA.sol#151) is not in mixedCase
Variable AbsToken._txLimitAmount (DADA.sol#152) is not in mixedCase
Variable AbsToken._minTotal (DADA.sol#153) is not in mixedCase
Variable AbsToken._receiveAddress (DADA.sol#155) is not in mixedCase
Variable AbsToken._airdropLen (DADA.sol#158) is not in mixedCase
Variable AbsToken._airdropAmount (DADA.sol#159) is not in mixedCase
Variable AbsToken._removeLPFee (DADA.sol#161) is not in mixedCase
Variable AbsToken._addLPFee (DADA.sol#162) is not in mixedCase
Variable AbsToken._lpFeeReceiver (DADA.sol#163) is not in mixedCase
Constant AbsToken._killBlock (DADA.sol#165) is not in UPPER_CASE_WITH_UNDERSCORES
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#conformance-to-solidity-naming-conventions
```

```
INFO:Detectors:
Variable ISwapRouter.addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256).amountADesired (DADA.sol#46) is too similar to ISwapRoute
r.addLiquidity(address,address,uint256,uint256,uint256,uint256,address,uint256).amountBDesired (DADA.sol#47)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#variable-names-too-similar
INFO:Detectors:
AbsToken._transfer(address,address,uint256) (DADA.sol#279-355) uses literals with too many digits:
        - maxSellAmount = balance * 99999 / 100000 (DADA.sol#290)
AbsToken._transfer(address,address,uint256) (DADA.sol#279-355) uses literals with too many digits:
        - processReward(500000) (DADA.sol#352)
DADA.constructor() (DADA.sol#828-843) uses literals with too many digits:
        - AbsToken(address(0x10ED43C718714eb63d5aA57B78B54704E256024E),address(0xbb4CdB9CBd36B01bD1cBaEBF2De08d9173bc095c),DADA,DADA,9,42069000000000000,ad
dress(0x8dD1d29524BD2c11deC7Bb144393cAb2d15Bb9b0),address(0x8dD1d29524BD2c11deC7Bb144393cAb2d15Bb9b0),address(0x08b52556eF45eD6E5F43e7e1D61A9C62592E11ed),42
069000000000000,0,42069000000000000) (DADA.sol#828-841)
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#too-many-digits
INFO:Detectors:
AbsToken._mainPair (DADA.sol#149) should be immutable
Reference: https://github.com/crytic/slither/wiki/Detector-Documentation#state-variables-that-could-be-declared-immutable
INFO:Slither:DADA.sol analyzed (8 contracts with 93 detectors), 64 result(s) found
```

Functional Tests
Router (PCS V2):

1- Approve (passed):
https://testnet.bscscan.com/tx/0xba78524e5271d24cf93b645918f869e6b643b751f3d4932c15dfadd159dcd256

2- Set Buy Fee (passed):
https://testnet.bscscan.com/tx/0xc16f95121fcb934169b7599dd7cfad2aa119ecd1a05d0493c84a5ed28b171073

3- (passed):
https://testnet.bscscan.com/tx/0xfbcfa402b99670b6fef761b6c3a16e621787c1300cf020f346fa043ba0d584e8

4- Trading Status (passed):
https://testnet.bscscan.com/tx/0x164749bcbdcb495e0970ef64a92930d831c2e9af9dc6897ed1a0427161a605cf

5-Clear Stuck Balance (passed):
https://testnet.bscscan.com/tx/0xffd3bf5d598e2346633b57bd97b1988ac7c737b75b77f9ccf4f735fe2f1db9aa

Ownership Privileges:
- The owner can transfer ownership.
- The owner can renounce ownership.
- The owner can set Fund/Reward/Receive addresses.
- The owner can set the Buy/Sell/Transfer fee to more than 100%.
- The owner can start trading.
- The owner whitelist addresses.
- The owner can start DADA.
- The owner can set the Reward list address.
- The owner can set a swap pair list address.
- The owner can set a limit amount.
- The owner can set the Tx limit amount.
- The owner can set the min total.
- The owner can set reward conditions.
- The owner can set holder conditions.
- The owner can exclude the holder's address.
- The owner can set the LPReceiver/AddLP/RemoveLP fee to more than 100%.

Findings:
Critical: 0
High: 4
Medium: 0
Low: 2
Informational & Optimizations: 1

Centralization – Enabling Trades

Severity: High

Function: startTrade

Status: Open

Overview:

The `startTrade` function permits only the contract owner to activate trading capabilities. Until this function is executed, no investors can buy, sell, or transfer their tokens. This places a high degree of control and centralization in the hands of the contract owner.

```
function startTrade() external onlyOwner {
        require(0 == startTradeBlock, "trading");
        startTradeBlock = block.number;
    }
```

Suggestion:

To reduce centralization and potential manipulation, consider one of the following approaches:

1. Automatically enable trading after a specified condition, such as the completion of a presale, is met.
2. If manual activation is still desired, consider transferring the ownership of the contract to a trustworthy, third-party entity like a certified "PinkSale Safu" developer. This can provide investors with more confidence in the eventual activation of trading capabilities, mitigating concerns of potential bad-faith actions by the original owner.

Centralization – The owner can lock the token.

Severity: High

Function: setLimitAmount, setTxLimitAmount, setHolderRewardCondition and SetHolderCondition.

Status: Open

Overview:

In this setLimitAmount, setTxLimitAmount, setHolderRewardCondition and SetHolderCondition.

```
function setLimitAmount(uint256 amount) external onlyOwner {
        _limitAmount = amount * 10 ** _decimals;
    }
function setTxLimitAmount(uint256 amount) external onlyOwner {
        _txLimitAmount = amount * 10 ** _decimals;
    }
 function setMinTotal(uint256 total) external onlyOwner {
        _minTotal = total * 10 ** _decimals;
    }
function setHolderRewardCondition(uint256 amount) external onlyOwner {
        holderRewardCondition = amount;
    }
```

```
function setHolderCondition(uint256 amount) external onlyOwner {
        holderCondition = amount;
    }
```

Suggestion:
It is recommended that there be a required check for zero address.

Centralization – Buy, Sell and Transfer Fees.

Severity: High
Function: setBuyFee, setSellFee and setTransferFee
Status: Open
Overview:
The owner can set the buy and sell fees up to 100%, which is not recommended.

```
 function setBuyFee(
        uint256 buyDestroyFee, uint256 buyFundFee, uint256 buyRewardFee,
        uint256 lpDividendFee, uint256 lpFee
    ) external onlyOwner {
        _buyDestroyFee = buyDestroyFee;
        _buyFundFee = buyFundFee;
        _buyRewardFee = buyRewardFee;
        _buyLPDividendFee = lpDividendFee;
        _buyLPFee = lpFee;
    }
function setSellFee(
        uint256 sellDestroyFee, uint256 sellFundFee, uint256 sellRewardFee,
        uint256 lpDividendFee, uint256 lpFee
    ) external onlyOwner {
        _sellDestroyFee = sellDestroyFee;
        _sellFundFee = sellFundFee;
        _sellRewardFee = sellRewardFee;
        _sellLPDividendFee = lpDividendFee;
        _sellLPFee = lpFee;
    }
function setTransferFee(uint256 fee) external onlyOwner {
        _transferFee = fee;
    }
```

Suggestion:
It is recommended that no fees in the contract should be more than 25% of the contract.

Centralization – Lp, Add and Remove LPFees.

Severity: High
Function: setLPFeeReceiver, setAddLPFee and setRemoveLPFee
Status: Open
Overview:
The owner can set the buy and sell fees up to 100%, which is not recommended.

```
function setLPFeeReceiver(address adr) external onlyOwner {
        _lpFeeReceiver = adr;
        _feeWhiteList[adr] = true;
    }
function setAddLPFee(uint256 fee) external onlyOwner {
        _addLPFee = fee;
    }
function setRemoveLPFee(uint256 fee) external onlyOwner {
        _removeLPFee = fee;
    }
```

Suggestion:
It is recommended that no fees in the contract should be more than 25% of the contract.

Centralization – Missing Events

Severity: Low
Subject: Missing Events
Status: Open
Overview:
They serve as a mechanism for emitting and recording data onto the blockchain, making it transparent and easily accessible.

```
 function setFundAddress(address addr) external onlyOwner {
        fundAddress = addr;
        _feeWhiteList[addr] = true;
    }
function setRewardAddress(address addr) external onlyOwner {
        rewardAddress = addr;
        _feeWhiteList[addr] = true;
    }
function setReceiveAddress(address addr) external onlyOwner {
        _receiveAddress = addr;
        _feeWhiteList[addr] = true;
    }
function setBuyFee(
        uint256 buyDestroyFee, uint256 buyFundFee, uint256 buyRewardFee,
        uint256 lpDividendFee, uint256 lpFee
```

```
    ) external onlyOwner {
        _buyDestroyFee = buyDestroyFee;
        _buyFundFee = buyFundFee;
        _buyRewardFee = buyRewardFee;
        _buyLPDividendFee = lpDividendFee;
        _buyLPFee = lpFee;
    }
function setSellFee(
        uint256 sellDestroyFee, uint256 sellFundFee, uint256 sellRewardFee,
        uint256 lpDividendFee, uint256 lpFee
    ) external onlyOwner {
        _sellDestroyFee = sellDestroyFee;
        _sellFundFee = sellFundFee;
        _sellRewardFee = sellRewardFee;
        _sellLPDividendFee = lpDividendFee;
        _sellLPFee = lpFee;
    }
function setTransferFee(uint256 fee) external onlyOwner {
        _transferFee = fee;
    }
function startDADA() external onlyOwner {
        require(0 == startDADABlock, "startDADA");
        startDADABlock = block.number;
    }
function startTrade() external onlyOwner {
        require(0 == startTradeBlock, "trading");
        startTradeBlock = block.number;
    }
function setDADA(address addr, bool enable) external onlyOwner {
        _DADA[addr] = enable;
    }
function batchSetDADA(address [] memory addr, bool enable) external onlyOwner {
        for (uint i = 0; i < addr.length; i++) {
            _DADA[addr[i]] = enable;
        }
    }
function setSwapPairList(address addr, bool enable) external onlyOwner {
        _swapPairList[addr] = enable;
    }
```

Centralization – Missing Zero Address

Severity: Low
Status: Open
Overview:
functions can take a zero address as a parameter (0x00000...). If a function parameter of address type is not properly validated by checking for zero addresses, there could be serious consequences for the contract's functionality.

```
function setFundAddress(address addr) external onlyOwner {
        fundAddress = addr;
        _feeWhiteList[addr] = true;
    }
function setRewardAddress(address addr) external onlyOwner {
        rewardAddress = addr;
        _feeWhiteList[addr] = true;
    }
function setReceiveAddress(address addr) external onlyOwner {
        _receiveAddress = addr;
        _feeWhiteList[addr] = true;
    }
function setDADA(address addr, bool enable) external onlyOwner {
        _DADA[addr] = enable;
    }
function setSwapPairList(address addr, bool enable) external onlyOwner {
        _swapPairList[addr] = enable;
    }
```

Suggestion:
It is suggested that the address should not be zero or dead.

Optimization

Severity: Informational
Subject: Old Pragma Solidity version
Status: Open
Overview:
It is considered best practice to pick the latest compiler version and stick with it. With a floating pragma, contracts may accidentally be deployed using an outdated.

```
pragma solidity ^0.8.18;
```