Assure DeFi®

THE VERIFICATION GOLD STANDARD

Security Assessment

TEKNICAi

Date: 23/05/2024

Audit Status: PASS

Audit Edition: Advanced

Risk Analysis

Vulnerability summary

Classification	Description
🔴 High	High-level vulnerabilities can result in the loss of assets or manipulation of data.
🟠 Medium	Medium-level vulnerabilities can be challenging to exploit, but they still have a considerable impact on smart contract execution, such as allowing public access to critical functions.
🟡 Low	Low-level vulnerabilities are primarily associated with outdated or unused code snippets that generally do not significantly impact execution, sometimes they can be ignored.
🟢 Informational	Informational vulnerabilities, code style violations, and informational statements do not affect smart contract execution and can typically be disregarded.

Executive Summary

According to the Assure assessment, the Customer's smart contract is **Well Secured.**

Insecure	Poorly Secured	Secured	**Well Secured**
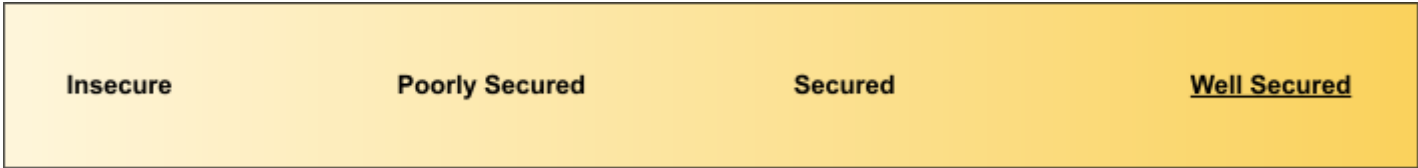
Scope

Target Code And Revision

For this audit, we performed research, investigation, and review of the TEKNICAi contracts followed by issue reporting, along with mitigation and remediation instructions outlined in this report.

Target Code And Revision

Project	Assure
Language	Solidity
Codebase	TEKNICAi ERC-20 Contract.sol - [SHA256] *961d059ea8f4c03f021acac0c65d5ba2330fa5b6ed69554a844545aeb9af9bf7*
Audit Methodology	Static, Manual

Attacks made to the contract

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.

Category	Item
Code review & Functional Review	- Compiler warnings. - Race conditions and Reentrancy. Cross-function race conditions. - Possible delays in data delivery. - Oracle calls. - Front running. - Timestamp dependence. - Integer Overflow and Underflow. - DoS with Revert. - DoS with block gas limit. - Methods execution permissions. - Economy model. - Private user data leaks. - Malicious Event log. - Scoping and Declarations. - Uninitialized storage pointers. - Arithmetic accuracy. - Design Logic. - Cross-function race conditions. - Safe Zeppelin module. - Fallback function security. - Overpowered functions / Owner privileges

AUDIT OVERVIEW

 HIGH

Contract: TEKNICAi ERC-20 Contract.sol

Function: swapAndLiquify()

Issue: The calls to marketingWallet.call{}() and developmentWallet.call{}() are not checked, which could lead to a loss of funds if the call fails.

Solution: Implement a require() statement to verify the success of the call by checking the boolean sent.

Fix: Dev team implemented a require statement to verify the success of the call.

 MEDIUM

No medium severity issues were found.

 LOW

No low severity issues were found.

 INFORMATIONAL

Contract: TEKNICAi ERC-20 Contract.sol

Function: excludeFromFees()

Issue: Typographical error in the function name.

Solution: Correct the function name from exlcudeFromFees to excludeFromFees.

Fix: Dev team corrected the name

Testing coverage

During the testing phase, custom use cases were written to cover all the logic of contracts. *Check "Annexes" to see the testing code.*

Testing TEKNICAi contract:

```
tests/test_token.py::test_update_max_tx_amount RUNNING
Transaction sent: 0x5547db6d602ba33595929a9a53e6e78aa818afc4393be739541208f4dc897027
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 0
  WETH9.constructor confirmed   Block: 1   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0x3194cBDC3dbcd3E11a07892e7bA5c3394048Cc87

Transaction sent: 0x7bae2624e4397b7e8bf657828e1e07435f469ad759872b75091dcfb92e64b42d
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 1
  UniswapV2Factory.constructor confirmed   Block: 2   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0x602C71e4DAC47a042Ee7f46E0aee17F94A3bA0B6

Transaction sent: 0xfe6097b03e1a1a43331440c45f0d3c463a215b9ce3bb912ceff4521bea2b5fc7
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 2
  UniswapV2Router02.constructor confirmed   Block: 3   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0xE7eD6747FaC5360f88a2EFC03E00d25789F69291

Transaction sent: 0x998d01b0d8c310f9198f212755175b83e94bd0fb8dec539c1a8c39479844881c
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 3
  Token.constructor confirmed   Block: 4   Gas used: 4529723 (37.75%)
  Token deployed at: 0x6951b5Bd815043E3F842c1b026b0Fa888Cc2DD85

Transaction sent: 0x3ca115a5db9d3994941187194c1079807988bf386db68b28508bdcbd7b5fdf8d
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 0
  Token.updateMaxTxAmount confirmed (Ownable: caller is not the owner)   Block: 5   Gas used: 22489 (0.19%)

Transaction sent: 0xf452ef1c134f7c542c7274b6ba27927d23292106c0c9cfe0be7b008574127a8d
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 4
  Token.updateMaxTxAmount confirmed (reverted)   Block: 6   Gas used: 22455 (0.19%)

Transaction sent: 0xf839c53e0c7854b2c81ae6915dc60c2c27bec657b7cfd9f815e08fd2841616ee
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 5
  Token.updateMaxTxAmount confirmed   Block: 7   Gas used: 28406 (0.24%)

tests/test_token.py::test_update_max_tx_amount PASSED
tests/test_token.py::test_update_max_wallet_amount RUNNING
Transaction sent: 0x56c2541f92aa306f1209baae3a840ab2c1dffc89c2598d908a5bfac69cac914d
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 6
  WETH9.constructor confirmed   Block: 8   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0x9E4c14403d7d9A8A782044E86a93CAE09D7B2ac9

Transaction sent: 0xa631e8c29bda874e2ef287747e0dbfa547eebc9b053b4c979fc4a8e4d57ae00e
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 7
  UniswapV2Factory.constructor confirmed   Block: 9   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0xcCB53c9429d32594F404d01fbe9E65ED1DCda8D9

Transaction sent: 0x821fffde57cb491817defa1b492304e3c45333d9e2fa1312b7e048819f82c405
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 8
  UniswapV2Router02.constructor confirmed   Block: 10   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0x420b1099B9eF5baba6D92029594eF45E19A04A4A

Transaction sent: 0xfcac859a7e7d992f7911d0d64ff103908f329b548204c1ec417b4bfa805636d0
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 9
  Token.constructor confirmed   Block: 11   Gas used: 4529735 (37.75%)
  Token deployed at: 0xa3B53dDCd2E3fC28e8E130288F2aBD8d5EE37472

Transaction sent: 0x7673d265595900a2117f07d65233717e67be6c4e719ea7cbe9202972001a6124
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 1
  Token.updateMaxWalletAmount confirmed (Ownable: caller is not the owner)   Block: 12   Gas used: 22422 (0.19%)

Transaction sent: 0x96cbcab595f8407f97f1d2cc754f604488d1455f8397a64c0b40e2ffcb64486e
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 10
  Token.updateMaxWalletAmount confirmed (reverted)   Block: 13   Gas used: 22388 (0.19%)

Transaction sent: 0xfc80a4fdfbf7f27c93389bf3602a2c62dfe0e3efef6af37fa303545c262d52bb
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 11
  Token.updateMaxWalletAmount confirmed   Block: 14   Gas used: 28339 (0.24%)

tests/test_token.py::test_update_max_wallet_amount PASSED
```

```
tests/test_token.py::test_exclude_from_fees RUNNING
Transaction sent: 0x245e15b53adc2f3c22cd4f9070e200886fced164d8648a6d5b0935eaefb2f845
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 12
  WETH9.constructor confirmed   Block: 15   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0x2c15A315610Bfa5248E4CbCbd693320e9D8E03Cc

Transaction sent: 0xb04371b84b89d55c174637daa0b3d2c9a644c08295f9716c6d24bbcc929bf553
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 13
  UniswapV2Factory.constructor confirmed   Block: 16   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0xe692Cf21B12e0B2717C4bF647F9768Fa58861c8b

Transaction sent: 0x15492ca0a86b385d7018462c011436f1ed1baaabe57e89a7f3d12da9c2cda6ee
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 14
  UniswapV2Router02.constructor confirmed   Block: 17   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0xe65A7a341978d59d40d30FC23F5014FACB4f575A

Transaction sent: 0x0ea914626f44a3104c6a7bf14c196e3c93f4d3c899c2ea40f22c7c0972388b32
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 15
  Token.constructor confirmed   Block: 18   Gas used: 4529735 (37.75%)
  Token deployed at: 0x30375B532345B01cB8c2AD12541b09E9Aa53A93d

Transaction sent: 0x9d73e78deb8d8a979a7685523fa9e04385f82f2769c4c4fa9b732a847c4db7cb
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 2
  Token.exlcudeFromFees confirmed (Ownable: caller is not the owner)   Block: 19   Gas used: 23000 (0.19%)

Transaction sent: 0x343c3409dc46b653196762f408011e46a2b4679d630984e94d5b6d103a3189da
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 16
  Token.exlcudeFromFees confirmed   Block: 20   Gas used: 44765 (0.37%)

Transaction sent: 0xecfd013273ce0eb06e757d54650c400d4bc3d5a5ea3cf23b7e211c3bc455152a
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 17
  Token.exlcudeFromFees confirmed (reverted)   Block: 21   Gas used: 23874 (0.20%)

Transaction sent: 0xd977bd8819e59f3dadf44a657ca28c272cea7b0779b8010839a9541963e28e8f
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 18
  Token.exlcudeFromFees confirmed   Block: 22   Gas used: 14877 (0.12%)

tests/test_token.py::test_exclude_from_fees PASSED
tests/test_token.py::test_update_buy_tax RUNNING
Transaction sent: 0x8eeef26a875d0b720aad785a8bdcd281321c69cc6670524944e71d22efdb675c
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 19
  WETH9.constructor confirmed   Block: 23   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0xDae02e4fE488952cFB8c95177154D188647a0146

Transaction sent: 0x31d9df08dbddd497871c1c02e3700ba776af151abee48d1ed13d95fabf7b718a
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 20
  UniswapV2Factory.constructor confirmed   Block: 24   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0xdCF93F11ef216cEC9C07fd31dD801c9b2b39Afb4

Transaction sent: 0x8f830ed8f07da52412cbe3a0112e21a440ac8eee3d6cdadc45bb88df9e5df2de
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 21
  UniswapV2Router02.constructor confirmed   Block: 25   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0xBcb61491F1859f53438918F1A5aFCA542Af9D397

Transaction sent: 0xc6a2e1b2c948975cf92ea56dd37ba176e4ed7f3315ca5fc2c88b62928921490c
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 22
  Token.constructor confirmed   Block: 26   Gas used: 4529725 (37.75%)
  Token deployed at: 0xD22363efee93190f82b52FCD62B7Dbcb920eF658

Transaction sent: 0x234c0d9ccf3dba00ac6d1f4bd64a245a615dce6cd0973af39a4606a92f3a668a
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 3
  Token.updateSellTax confirmed (Ownable: caller is not the owner)   Block: 27   Gas used: 22763 (0.19%)

Transaction sent: 0x9ce877edbee05338d3dec5cb54ee67aa478f350e5f98416db1892746114742fe
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 23
  Token.updateSellTax confirmed   Block: 28   Gas used: 22841 (0.19%)

Transaction sent: 0xd28c7bcecc064b43475b6121160b1afa8109df7270c9adbbcb52f286f2280d5f
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 24
  Token.updateSellTax confirmed   Block: 29   Gas used: 34624 (0.29%)

tests/test_token.py::test_update_buy_tax PASSED
```

```
tests/test_token.py::test_update_transfer_tax RUNNING
Transaction sent: 0xb4f0eb925f6414d222fc71632977401ba96cb12dfe72f3ba33392f201d77f49d
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 25
  WETH9.constructor confirmed   Block: 30   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0x654f70d8442EA18904FA1AD79114f7250F7E9336

Transaction sent: 0x2a99cf2a63cb15631203dc34b8210fe6aaddfc4f63edb252c7fc3b099883c125
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 26
  UniswapV2Factory.constructor confirmed   Block: 31   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0xADeD61D42dE86f9058386D1D0d739d20C7eAfC43

Transaction sent: 0xe8458668f2772f232118d6c4ea5a841852067cb0ce919a8a8a28d600ca006ace
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 27
  UniswapV2Router02.constructor confirmed   Block: 32   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0x832698Daec363C9A7aB036C224Af5B21280b3AC6

Transaction sent: 0x046d7595b333189791e8accebf9a7026819fb376c2b9db3fe5e07e76ff144ae6
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 28
  Token.constructor confirmed   Block: 33   Gas used: 4529735 (37.75%)
  Token deployed at: 0xA95916C3D979400C7443961330b3092510a229Ba

Transaction sent: 0x8d2e38b9f180f085a2609b69cc3798f7e23d7c07c09e00252c527202fac2c2c1
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 4
  Token.updateTransferTax confirmed (Ownable: caller is not the owner)   Block: 34   Gas used: 22783 (0.19%)

Transaction sent: 0xd315977787067c84e20560bea21623f210ff661ea21c4ce0a62b75a6923148d1
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 29
  Token.updateTransferTax confirmed   Block: 35   Gas used: 22861 (0.19%)

Transaction sent: 0xc576f19a924c32948bb3136ad206924e5226f5c15e41254861779890f838e17b
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 30
  Token.updateTransferTax confirmed   Block: 36   Gas used: 34643 (0.29%)

tests/test_token.py::test_update_transfer_tax PASSED
tests/test_token.py::test_update_wallets RUNNING
Transaction sent: 0x9c926fa0967078f77d561b73c26da6fee2b96787a4657080270082726385932c
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 31
  WETH9.constructor confirmed   Block: 37   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0x82c83b7f88aef2eD99d4869D547b6ED28e69C8df

Transaction sent: 0xd7f058d8a133c1d4aac27e15eeb0c53821c41b809c5625189bfe19399e894959
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 32
  UniswapV2Factory.constructor confirmed   Block: 38   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0x724Ca58E1e6e64BFB1E15d7Eec0fe1E5f581c7bD

Transaction sent: 0xb520f3621dd6c078e7d655695bf329616f2f1b437e8c3c2d766b32430d766bfd
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 33
  UniswapV2Router02.constructor confirmed   Block: 39   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0x34b97ffa01dc0DC959c5f1176273D0de3be914C1

Transaction sent: 0xc4d9496bc6396207aaf907e49839294bff4fc2e8fdfbba00ca4353d11e2b0e48
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 34
  Token.constructor confirmed   Block: 40   Gas used: 4529735 (37.75%)
  Token deployed at: 0xc830Ad2FDfCC2f368fE5DeC93b1Dc72ecABb3691

Transaction sent: 0xb11302e1092679b3f4b0b90c44db9bfc1cd7d14a0f6daba81573fdbd781807b0
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 5
  Token.updateWallets confirmed (Ownable: caller is not the owner)   Block: 41   Gas used: 23719 (0.20%)

Transaction sent: 0x1714546dc5d6fb0ff29454153dc0ee1d836cbb69b6d5c9fbea8700e31beb0de9
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 35
  Token.updateWallets confirmed (reverted)   Block: 42   Gas used: 23515 (0.20%)

Transaction sent: 0x1f607c7ae14c00f13232434506680aa433175ea6c2b7c46b58a7cab0ec65af8e
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 36
  Token.updateWallets confirmed   Block: 43   Gas used: 41240 (0.34%)

tests/test_token.py::test_update_wallets PASSED
```

```
tests/test_token.py::test_transfer RUNNING
Transaction sent: 0x32c6f627f16346b7a0ca7b314c560df8da1e834b3ee9bf04cf68468eac7018a7
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 37
  WETH9.constructor confirmed    Block: 44   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0x4B0FccF53589c1F185B35db88bB315a0bBF9a3e0

Transaction sent: 0x7dc2a993603b22a48e8d1af2b5b50d4e34873a68bfea8e1cec497b8b0711bcc0
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 38
  UniswapV2Factory.constructor confirmed    Block: 45   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0xFE0F4Cf81B5c0a6Fd65a610FD9488F33aE9095cB

Transaction sent: 0x715f753bbfca31e8d4a869d3f7a0fa73abd556d51e815e1cdd0196b5dcb9bfed
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 39
  UniswapV2Router02.constructor confirmed    Block: 46   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0x4e3E7dC9D84dA7BE8f017f4C36153A61341736d4

Transaction sent: 0x85a8e3ac795d64ed3ca8d08276b19da471b4af8cb99f1ad913cbe158459f652e
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 40
  Token.constructor confirmed    Block: 47   Gas used: 4529725 (37.75%)
  Token deployed at: 0x0AC45e945A008D3fc19da8f591be8601C1F63130

Transaction sent: 0x522ed908e855434dc857d209b9c532994a73e4dd66ae526b81041b72134c44f9
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 41
  Token.transfer confirmed    Block: 48   Gas used: 53729 (0.45%)

Transaction sent: 0x25b4951ad53bd3011da3979b61c965118b77889de436e275e0fd578f54e5be1a
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 6
  Token.transfer confirmed (reverted)    Block: 49   Gas used: 24761 (0.21%)

Transaction sent: 0xf115e6f1fd801b8ebc6f5b06f61e89d1368182d19c4258ab994195720e0fa0d8
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 7
  Token.enableTrading confirmed (Ownable: caller is not the owner)   Block: 50   Gas used: 22218 (0.19%)

Transaction sent: 0x63bfa604f7969930a6800c6bf600946f20de0a68f61d20bfdbd0376346c6c963
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 42
  Token.enableTrading confirmed    Block: 51   Gas used: 48783 (0.41%)

Transaction sent: 0x457bd6a9d859187b00e1e4f3a6f83a98185d7cf323f6b447d0f95f3a04737670
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 43
  Token.enableTrading confirmed (reverted)    Block: 52   Gas used: 22995 (0.19%)

Transaction sent: 0x63777acbc16b281159020257abdf71207ec623cf4572b13aaf9bf954cf7b7247
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 8
  Token.transfer confirmed    Block: 53   Gas used: 84801 (0.71%)

Transaction sent: 0xcc433712d03c5e4c3d90143e4be7ffa8fed96dbcc49c5b9e501b40ec7c2096e8
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 9
  Token.transfer confirmed    Block: 54   Gas used: 70638 (0.59%)

Transaction sent: 0xe12248dd3e6b53012219443e910cd4d07b0465da02bf5bfaa2e241b1b9d0aae6
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 1
  Token.transfer confirmed    Block: 55   Gas used: 40591 (0.34%)

Transaction sent: 0xbd3d457dbf7e9f93863a8525011871c9a16dc1c27fe240cca73ae9ff52f15ef1
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 44
  Token.updateTransferTax confirmed    Block: 57   Gas used: 23831 (0.20%)

Transaction sent: 0x66c2c06cf8860cb01b68541c5539f0291f12788c4471d946967326d9a1e43f77
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 10
  Token.transfer confirmed    Block: 58   Gas used: 53836 (0.45%)

Transaction sent: 0x077aa9ad4c0c00b55707ed38f2f82a2ef29294dad936574b5991e2058132a896
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 11
  Token.transfer confirmed    Block: 59   Gas used: 69673 (0.58%)

tests/test_token.py::test_transfer PASSED
```

```
tests/test_token.py::test_claim_stucked_eth RUNNING
Transaction sent: 0xc6e2e74ae8590e18e85b9a1828f83a943496762d8d68766c48c834a59bddd15c
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 45
  WETH9.constructor confirmed   Block: 60   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0xa1910C6e0Fbd0E38cfBabAeC5D1C1D539F81CC63

Transaction sent: 0x00df4e56c09bc2a82599e092dbeeb3a057c7debeedd65cffa87b130f2aec9c8a
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 46
  UniswapV2Factory.constructor confirmed   Block: 61   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0x8BE16B874F47371C42498b499837Ed87D7661E86

Transaction sent: 0x888acf1a66c57aa8692e86dfe7c58db2c0a5bab0df57e65a799b858583363fad
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 47
  UniswapV2Router02.constructor confirmed   Block: 62   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0x1aa96efd2B002541E830CB7f60e473AA24e31F9A

Transaction sent: 0x1ecb62ecd8d737555ee92b2ccfeae7d377a4f437282ad770fb993c8604c6df48
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 48
  Token.constructor confirmed   Block: 63   Gas used: 4529713 (37.75%)
  Token deployed at: 0x8b1B440724DCe2EE9779B58af841Ec59F545838B

Transaction sent: 0x188a4d8d1327b4877b01c508bc146f669af888854a383dbba1ad8b7cc7af3cba
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 12
  Token.claimStuckedEth confirmed (reverted)   Block: 64   Gas used: 22743 (0.19%)

Transaction sent: 0x9b67673cab4f93a67c5d98d4a0534e2ee79863265ee827b4bfca7381393557a3
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 0
  Token.claimStuckedEth confirmed   Block: 66   Gas used: 55242 (0.46%)

tests/test_token.py::test_claim_stucked_eth PASSED
tests/test_token.py::test_claim_stucked_erc20 RUNNING
Transaction sent: 0xe04e04165c93eee4fd408d5eaaa4235271e4e086ef1007e112fffabc2366ee87
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 49
  ERC20Mock.constructor confirmed   Block: 67   Gas used: 619637 (5.16%)
  ERC20Mock deployed at: 0xC6D563d5c2243b27e7294511063f563ED701EA2C

Transaction sent: 0x361a87fb4e1d81bcddc27a444752170d51c62e53710f0620c1dbd9dfc107115a
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 50
  WETH9.constructor confirmed   Block: 68   Gas used: 476546 (3.97%)
  WETH9 deployed at: 0xD537bF4b795b7D07Bd5F4bAf7017e3ce8360B1DE

Transaction sent: 0x7983cde837c0c28a702c348bb3290e46987c4ff681160129b2db09907d212c9d
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 51
  UniswapV2Factory.constructor confirmed   Block: 69   Gas used: 2412730 (20.11%)
  UniswapV2Factory deployed at: 0x70bC6D873D110Da59a9c49E7485a27B0F605E5db

Transaction sent: 0xb503efa966832361fe500342d9703240b0edd4452b8b0b9051499dc72969e0dc
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 52
  UniswapV2Router02.constructor confirmed   Block: 70   Gas used: 3895430 (32.46%)
  UniswapV2Router02 deployed at: 0xFb7C5F938835aE34aF48c278C6763E134907Acdb

Transaction sent: 0x0f4ba395e17f272db2b45aef27ee8a66ad10154007a97af6d720c7ae420fefac
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 53
  Token.constructor confirmed   Block: 71   Gas used: 4529725 (37.75%)
  Token deployed at: 0xb291024F4b2E4C3767A96aB44566a8e93cC828C5

Transaction sent: 0xc80e8ca797337a4e2d754c326b0c48cccffe07aabbe98a55cf26f884669027f9
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 13
  Token.claimStuckedERC20 confirmed (reverted)   Block: 72   Gas used: 22920 (0.19%)

Transaction sent: 0x340be9b90d4d29f628613677c76372f9b563c0b827d7b0e1eb6308134594dbc8
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 1
  Token.claimStuckedERC20 confirmed (TOKEN: TOKEN_CLAIM_FAILED)   Block: 73   Gas used: 26850 (0.22%)

Transaction sent: 0xffbc52c4e301a8ddb6fbce678ad5d78ea72671435c9fad83349260b85765bd27
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 54
  ERC20Mock.mint confirmed   Block: 74   Gas used: 65637 (0.55%)

Transaction sent: 0xc1c36ab43c7a0d1f2989d284245642d1e7f21f3459a062f2b2482fcdddb80785
  Gas price: 0.0 gwei   Gas limit: 12000000   Nonce: 2
```

Annexes

Testing code:

`tecknicai.py:`

```python
from brownie import (
    reverts, accounts
)

from scripts.helpful_scripts import (
    ZERO_ADDRESS,
    DAY_TIMESTAMP,
    get_account,
    increase_timestamp
)

from scripts.deploy import (
    deploy_erc,
    deploy_weth,
    deploy_factory,
    deploy_router,
    deploy_token
)

def test_update_max_tx_amount(only_local):
    # Arrange
    owner = get_account(0)
    other = get_account(1)

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("Ownable: caller is not the owner"):
        token.updateMaxTxAmount(0.1, {"from": other})
    with reverts("MinOnePercent: "):
        token.updateMaxTxAmount(0.1, {"from": owner})
    token.updateMaxTxAmount(5, {"from": owner})

def test_update_max_wallet_amount(only_local):
    # Arrange
    owner = get_account(0)
```

```python
    other = get_account(1)

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("Ownable: caller is not the owner"):
        token.updateMaxWalletAmount(0.1, {"from": other})
    with reverts("MinOnePercent: "):
        token.updateMaxWalletAmount(0.1, {"from": owner})
    token.updateMaxWalletAmount(5, {"from": owner})


def test_exclude_from_fees(only_local):
    # Arrange
    owner = get_account(0)
    other = get_account(1)
    extra = get_account(2)

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("Ownable: caller is not the owner"):
        token.exlcudeFromFees(extra, True, {"from": other})
    token.exlcudeFromFees(extra, True, {"from": owner})
    with reverts("UpdateBoolValue: "):
        token.exlcudeFromFees(extra, True, {"from": owner})
    token.exlcudeFromFees(extra, False, {"from": owner})

def test_update_buy_tax(only_local):
    # Arrange
    owner = get_account(0)
    other = get_account(1)

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("Ownable: caller is not the owner"):
        token.updateBuyTax(5, 5, 5, {"from": other})
    token.updateBuyTax(5, 5, 5, {"from": owner})
```

```python
    assert token.buyFee()[0] == 3
    assert token.buyFee()[1] == 1
    assert token.buyFee()[2] == 1
    token.updateBuyTax(1, 1, 1, {"from": owner})
    assert token.buyFee()[0] == 1
    assert token.buyFee()[1] == 1
    assert token.buyFee()[2] == 1


def test_update_buy_tax(only_local):
    # Arrange
    owner = get_account(0)
    other = get_account(1)

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("Ownable: caller is not the owner"):
        token.updateSellTax(5, 5, 5, {"from": other})
    token.updateSellTax(5, 5, 5, {"from": owner})
    assert token.sellFee()[0] == 3
    assert token.sellFee()[1] == 1
    assert token.sellFee()[2] == 1
    token.updateSellTax(1, 1, 1, {"from": owner})
    assert token.sellFee()[0] == 1
    assert token.sellFee()[1] == 1
    assert token.sellFee()[2] == 1


def test_update_transfer_tax(only_local):
    # Arrange
    owner = get_account(0)
    other = get_account(1)

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("Ownable: caller is not the owner"):
        token.updateTransferTax(5, 5, 5, {"from": other})
    token.updateTransferTax(5, 5, 5, {"from": owner})
    assert token.transferFee()[0] == 3
    assert token.transferFee()[1] == 1
    assert token.transferFee()[2] == 1
```

```python
    token.updateTransferTax(1, 1, 1, {"from": owner})
    assert token.transferFee()[0] == 1
    assert token.transferFee()[1] == 1
    assert token.transferFee()[2] == 1

def test_update_wallets(only_local):
    # Arrange
    owner = get_account(0)
    other = get_account(1)
    extra = get_account(2)

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("Ownable: caller is not the owner"):
        token.updateWallets(extra, extra, extra, {"from": other})
    with reverts("ZeroAddress: "):
        token.updateWallets(extra, ZERO_ADDRESS, extra, {"from": owner})
    token.updateWallets(extra, extra, extra, {"from": owner})
    assert token.marketingWallet() == extra
    assert token.developmentWallet() == extra
    assert token.lpReceiverWallet() == extra

def test_transfer(only_local):
    # Arrange
    owner = get_account(0)
    other = get_account(1)
    extra = get_account(2)

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    token.transfer(other, 10e18, {"from": owner})
    with reverts("TradingIsNotLiveYet: "):
        token.transfer(extra, 1e18, {"from": other})
    with reverts("Ownable: caller is not the owner"):
        token.enableTrading({"from": other})
    token.enableTrading({"from": owner})
    with reverts("TradingIsAlreadyLive: "):
        token.enableTrading({"from": owner})
    # early transfer
```

```python
    tx = token.transfer(extra, 1e18, {"from": other})
    assert tx.events['Transfer'][0]['from'] == other
    assert tx.events['Transfer'][0]['to'] == token.address
    assert tx.events['Transfer'][0]['value'] == 0.05e18
    assert tx.events['Transfer'][1]['from'] == other
    assert tx.events['Transfer'][1]['to'] == extra
    assert tx.events['Transfer'][1]['value'] == 0.95e18

    tx = token.transfer(token.uniswapPair(), 1e18, {"from": other})
    assert tx.events['Transfer'][0]['from'] == other
    assert tx.events['Transfer'][0]['to'] == token.address
    assert tx.events['Transfer'][0]['value'] == 0.3e18
    assert tx.events['Transfer'][1]['from'] == other
    assert tx.events['Transfer'][1]['to'] == token.uniswapPair()
    assert tx.events['Transfer'][1]['value'] == 0.7e18

    tx = token.transfer(other, 0.7e18, {"from": token.uniswapPair()})
    assert tx.events['Transfer'][0]['from'] == token.uniswapPair()
    assert tx.events['Transfer'][0]['to'] == token.address
    assert tx.events['Transfer'][0]['value'] == 0.21e18
    assert tx.events['Transfer'][1]['from'] == token.uniswapPair()
    assert tx.events['Transfer'][1]['to'] == other
    assert tx.events['Transfer'][1]['value'] == 0.49e18

    increase_timestamp(DAY_TIMESTAMP)
    token.updateTransferTax(1, 1, 0, {"from": owner})
    tx = token.transfer(extra, 1e18, {"from": other})
    assert tx.events['Transfer'][0]['from'] == other
    assert tx.events['Transfer'][0]['to'] == token.address
    assert tx.events['Transfer'][0]['value'] == 0.02e18
    assert tx.events['Transfer'][1]['from'] == other
    assert tx.events['Transfer'][1]['to'] == extra
    assert tx.events['Transfer'][1]['value'] == 0.98e18

    tx = token.transfer(token.uniswapPair(), 1e18, {"from": other})
    assert tx.events['Transfer'][0]['from'] == other
    assert tx.events['Transfer'][0]['to'] == token.address
    assert tx.events['Transfer'][0]['value'] == 0.05e18
    assert tx.events['Transfer'][1]['from'] == other
    assert tx.events['Transfer'][1]['to'] == token.uniswapPair()
    assert tx.events['Transfer'][1]['value'] == 0.95e18


def test_claim_stucked_eth(only_local):
    # Arrange
    owner = get_account(0)
```

```python
    other = get_account(1)
    extra = get_account(2)
    random_addr = "0x61B6187172B052c516E20276760eAaF81f319B8C"

    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("OnlyMarketingWallet: "):
        token.claimStuckedEth(other, {"from": other})

    extra.transfer(token.address, "1 ether")
    token.claimStuckedEth(random_addr, {"from": token.marketingWallet()})
    acc = accounts.at(random_addr, force=True)
    acc.balance() == 1e18

def test_claim_stucked_erc20(only_local):
    # Arrange
    owner = get_account(0)
    other = get_account(1)
    extra = get_account(2)
    random_addr = "0x61B6187172B052c516E20276760eAaF81f319B8C"

    mock_erc = deploy_erc(owner, "test", "TEST")
    weth = deploy_weth(owner)
    factory = deploy_factory(owner, owner)
    router = deploy_router(owner, factory.address, weth.address)
    token = deploy_token(owner, router.address)

    with reverts("OnlyMarketingWallet: "):
        token.claimStuckedERC20(mock_erc.address, 1e18, {"from": other})
    with reverts("TOKEN: TOKEN_CLAIM_FAILED"):
        token.claimStuckedERC20(mock_erc.address, 1e18, {"from": token.marketingWallet()})
    mock_erc.mint(token.address, 1e18)
    token.claimStuckedERC20(mock_erc.address, 1e18, {"from": token.marketingWallet()})
    assert mock_erc.balanceOf(token.marketingWallet()) == 1e18
```

Technical Findings Summary

Findings

Vulnerability Level	Total	Pending	Not Apply	Acknowledged	Partially Fixed	Fixed
🔴 High	1					1
🟠 Medium	0					
🟡 Low	0					
🟢 Informational	1					1

Assessment Results

Score Results

Review	Score
Global Score	**90/100**
Assure KYC	Not completed
Audit Score	90/100

The Following Score System Has been Added to this page to help understand the value of the audit, the maximum score is 100, however to attain that value the project must pass and provide all the data needed for the assessment. Our Passing Score has been changed to 84 Points for a higher standard, if a project does not attain 85% is an automatic failure. Read our notes and final assessment below. The Global Score is a combination of the evaluations obtained between having or not having KYC and the type of contract audited together with its manual audit.

Audit PASS

Following our comprehensive security audit of the contract for TEKNICAi project, We are pleased to inform you that our recent audit, which initially identified a high issue in your smart contract, has been successfully resolved by your development team. The issue was related to the swapAndLiquify() function, where the calls to marketingWallet.call{}() and developmentWallet.call{}() were not properly checked. The development team has implemented a require() statement to ensure the success of these calls by verifying the boolean sent, effectively mitigating the risk and safeguarding the funds.
With this issue addressed, we are happy to confirm that the audit has now passed. Your contract meets our security standards, and we commend your team for their prompt and effective response.

Disclaimer

Assure Defi has conducted an independent security assessment to verify the integrity of and highlight any vulnerabilities or errors, intentional or unintentional, that may be present in the reviewed code for the scope of this assessment. This report does not constitute agreement, acceptance, or advocating for the Project, and users relying on this report should not consider this as having any merit for financial advice in any shape, form, or nature. The contracts audited do not account for any economic developments that the Project in question may pursue, and the veracity of the findings thus presented in this report relate solely to the proficiency, competence, aptitude, and discretion of our independent auditors, who make no guarantees nor assurance that the contracts are entirely free of exploits, bugs, vulnerabilities or deprecation of technologies.

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