



TechRate
AUDIT COMPANY

Smart Contract Security Audit

TechRate

July, 2021

Audit Details



Audited project

BABY CAKE



Deployer address

0xB2f0A31695a1e7Df0503F7cdFfa201C3A444982B



Client contacts:

BABY CAKE team



Blockchain

Binance Smart Chain



Project website:

<https://babycake.app>

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at 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 us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the below disclaimer below – please make sure to read it in full.

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The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

TechRate was commissioned by BABY CAKE to perform an audit of smart contracts:

<https://bscscan.com/address/0xdb8d30b74bf098af214e862c90e647bbb1fcc58c#code>

The purpose of the audit was to achieve the following:

- Ensure that the smart contract functions as intended.
- Identify potential security issues with the smart contract.

The information in this report should be used to understand the risk exposure of the smart contract, and as a guide to improve the security posture of the smart contract by remediating the issues that were identified.

Contracts Details

Token contract details for 22.07.2021

Contract name	BABY CAKE
Contract address	0xdB8D30b74bf098aF214e862C90E647bbB1fcC58c
Total supply	100,000,000,000
Token ticker	BABYCAKE
Decimals	18
Token holders	14,417
Transactions count	146,557
Top 100 holders dominance	60.81%
Liquidity fee	3
Cake reward fee	7
Marketing fee	5
Total fees	15
Dividend tracker	0x363621cb1b32590c55f283432d91530d77cf532f
Uniswap V2 pair	0xb5e33fe13a821e55ed33c884589a804b1b4f6fd8
Contract deployer address	0xB2f0A31695a1e7Df0503F7cdFfa201C3A444982B
Contract's current owner address	0xb2f0a31695a1e7df0503f7cdffa201c3a444982b

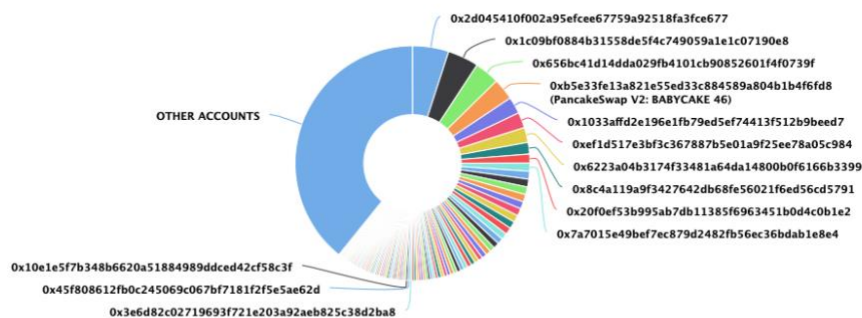
BABY CAKE Token Distribution

The top 100 holders collectively own 60.81% (60,810,354,601.34 Tokens) of BABY CAKE

Token Total Supply: 100,000,000,000.00 Token | Total Token Holders: 14,419

BABY CAKE Top 100 Token Holders

Source: BscScan.com



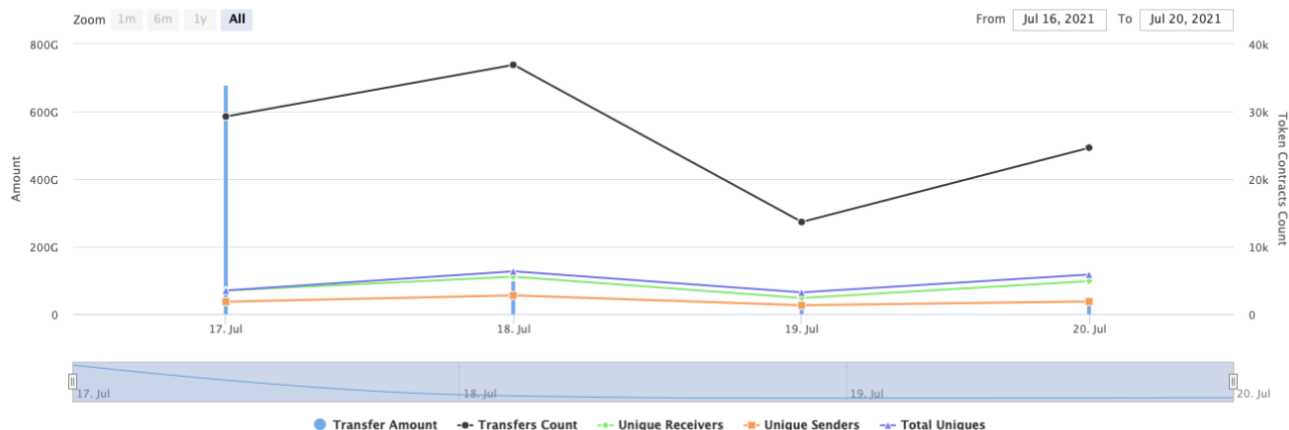
(A total of 60,810,354,601.34 tokens held by the top 100 accounts from the total supply of 100,000,000,000.00 token)

BABY CAKE Contract Interaction Details



Time Series: Token Contract Overview

Sat 17, Jul 2021 - Tue 20, Jul 2021



Token Contract 0xdb8d30b74bf098af214e862c90e647bbb1fcc58c (BABY CAKE)
Source: BscScan.com



BABY CAKE Top 10 Token Holders

Rank	Address	Quantity (Token)	Percentage
1	 0x2d045410f002a95efcee67759a92518fa3fce677	5,000,000,000	5.0000%
2	0x1c09bf0884b31558de5f4c749059a1e1c07190e8	4,266,465,158.190482002421380792	4.2665%
3	0x656bc41d14dda029fb4101cb90852601f4f0739f	3,400,000,000	3.4000%
4	 PancakeSwap V2: BABYCAKE 46	2,981,545,191.332934745019293397	2.9815%
5	0x1033affd2e196e1fb79ed5ef74413f512b9beed7	2,293,775,404.678898118988524431	2.2938%
6	0xef1d517e3bf3c367887b5e01a9f25ee78a05c984	2,140,569,663.238107608621577554	2.1406%
7	0x6223a04b3174f33481a64da14800b0f6166b3399	2,063,783,790.616019809481336373	2.0638%
8	0x8c4a119a9f3427642db68fe56021f6ed56cd5791	1,601,063,345.26	1.6011%
9	0x20f0ef53b995ab7db11385f6963451b0d4c0b1e2	1,244,822,503.98284539257144264	1.2448%
10	0x7a7015e49bef7ec879d2482fb56ec36bdab1e8e4	1,112,249,651.7	1.1122%

BABY CAKE Top 10 LP Token Holders

Rank	Address	Quantity	Percentage
1	 0x00	1,904,202.674781737036391985	65.1208%
2	 0x8655e5c4d701186d16765d1cdcef6d5287e4679a	974,679.434480896390682841	33.3325%
3	0x07d80ae6f36a5e08dca74ce884a24d39db9934ed	35,930.130947237554811403	1.2288%
4	0x8cc7bc33f5188b1fb683bedc4dbffa77b136833b	4,418.617278015119323176	0.1511%
5	0xb2d012cc521ccda339664cadd404111190f8a01	2,163.084820345039591693	0.0740%
6	0x0d8bc1642d3a90d305c84515108f68cc6c38f613	743.20355691654342958	0.0254%
7	0xa41062c0c412ed131793bd17286ff1c032e02b52	576.277645719465572646	0.0197%
8	0x3bfca7af6d5c75a7814ef839999fe84f72abc416	487.85465367610143003	0.0167%
9	0xcc4884fb9947b05d0aae061b042df481ad7a8c31	297.753741653266398258	0.0102%
10	0x5d37a712e163c0f4a2bb70b7cf0590eefe13393d	231.468798558310565391	0.0079%

Contract functions details

- + [Lib] SafeMathUint
 - [Int] toInt256Safe
- + [Lib] SafeMathInt
 - [Int] mul
 - [Int] div
 - [Int] sub
 - [Int] add
 - [Int] abs
 - [Int] toUint256Safe
- + [Lib] SafeMath
 - [Int] add
 - [Int] sub
 - [Int] sub
 - [Int] mul
 - [Int] div
 - [Int] div
 - [Int] mod
 - [Int] mod
- + Ownable (Context)
 - [Pub] <Constructor> #
 - [Pub] owner
 - [Pub] renounceOwnership #
 - modifiers: onlyOwner
 - [Pub] transferOwnership #
 - modifiers: onlyOwner
- + [Int] IUniswapV2Router01
 - [Ext] factory
 - [Ext] WETH
 - [Ext] addLiquidity #
 - [Ext] addLiquidityETH (\$)
 - [Ext] removeLiquidity #
 - [Ext] removeLiquidityETH #
 - [Ext] removeLiquidityWithPermit #
 - [Ext] removeLiquidityETHWithPermit #
 - [Ext] swapExactTokensForTokens #
 - [Ext] swapTokensForExactTokens #
 - [Ext] swapExactETHForTokens (\$)
 - [Ext] swapTokensForExactETH #
 - [Ext] swapExactTokensForETH #
 - [Ext] swapETHForExactTokens (\$)
 - [Ext] quote
 - [Ext] getAmountOut
 - [Ext] getAmountIn
 - [Ext] getAmountsOut
 - [Ext] getAmountsIn
- + [Int] IUniswapV2Router02 (IUniswapV2Router01)

- [Ext] removeLiquidityETHSupportingFeeOnTransferTokens #
- [Ext] removeLiquidityETHWithPermitSupportingFeeOnTransferTokens #
- [Ext] swapExactTokensForTokensSupportingFeeOnTransferTokens #
- [Ext] swapExactETHForTokensSupportingFeeOnTransferTokens (\$)
- [Ext] swapExactTokensForETHSupportingFeeOnTransferTokens #

- + [Int] IUniswapV2Pair
 - [Ext] name
 - [Ext] symbol
 - [Ext] decimals
 - [Ext] totalSupply
 - [Ext] balanceOf
 - [Ext] allowance
 - [Ext] approve #
 - [Ext] transfer #
 - [Ext] transferFrom #
 - [Ext] DOMAIN_SEPARATOR
 - [Ext] PERMIT_TYPEHASH
 - [Ext] nonces
 - [Ext] permit #
 - [Ext] MINIMUM_LIQUIDITY
 - [Ext] factory
 - [Ext] token0
 - [Ext] token1
 - [Ext] getReserves
 - [Ext] price0CumulativeLast
 - [Ext] price1CumulativeLast
 - [Ext] kLast
 - [Ext] mint #
 - [Ext] burn #
 - [Ext] swap #
 - [Ext] skim #
 - [Ext] sync #
 - [Ext] initialize #

- + [Int] IUniswapV2Factory
 - [Ext] feeTo
 - [Ext] feeToSetter
 - [Ext] getPair
 - [Ext] allPairs
 - [Ext] allPairsLength
 - [Ext] createPair #
 - [Ext] setFeeTo #
 - [Ext] setFeeToSetter #

- + [Lib] IterableMapping
 - [Pub] get
 - [Pub] getIndexOfKey
 - [Pub] getKeyAtIndex
 - [Pub] size
 - [Pub] set #
 - [Pub] remove #

- + [Int] IERC20Metadata (IERC20)
 - [Ext] name

- [Ext] symbol
- [Ext] decimals

+ [Int] IERC20

- [Ext] totalSupply
- [Ext] balanceOf
- [Ext] transfer #
- [Ext] allowance
- [Ext] approve #
- [Ext] transferFrom #

+ ERC20 (Context, IERC20, IERC20Metadata)

- [Pub] <Constructor> #
- [Pub] name
- [Pub] symbol
- [Pub] decimals
- [Pub] totalSupply
- [Pub] balanceOf
- [Pub] transfer #
- [Pub] allowance
- [Pub] approve #
- [Pub] transferFrom #
- [Pub] increaseAllowance #
- [Pub] decreaseAllowance #
- [Int] _transfer #
- [Int] _mint #
- [Int] _burn #
- [Int] _approve #
- [Int] _beforeTokenTransfer #

+ [Int] DividendPayingTokenOptionalInterface

- [Ext] withdrawableDividendOf
- [Ext] withdrawnDividendOf
- [Ext] accumulativeDividendOf

+ [Int] DividendPayingTokenInterface

- [Ext] dividendOf
- [Ext] withdrawDividend #

+ DividendPayingToken (ERC20, Ownable, DividendPayingTokenInterface, DividendPayingTokenOptionalInterface)

- [Pub] <Constructor> #
 - modifiers: ERC20
- [Pub] distributeCAKEDividends #
 - modifiers: onlyOwner
- [Pub] withdrawDividend #
- [Int] _withdrawDividendOfUser #
- [Pub] dividendOf
- [Pub] withdrawableDividendOf
- [Pub] withdrawnDividendOf
- [Pub] accumulativeDividendOf
- [Int] _transfer #
- [Int] _mint #
- [Int] _burn #
- [Int] _setBalance #

+ Context

- [Int] _msgSender
- [Int] _msgData

+ BABYCAKE (ERC20, Ownable)

- [Pub] <Constructor> #
 - modifiers: ERC20
- [Ext] <Fallback> (\$)
- [Pub] updateDividendTracker #
 - modifiers: onlyOwner
- [Pub] updateUniswapV2Router #
 - modifiers: onlyOwner
- [Pub] excludeFromFees #
 - modifiers: onlyOwner
- [Pub] excludeMultipleAccountsFromFees #
 - modifiers: onlyOwner
- [Ext] setMarketingWallet #
 - modifiers: onlyOwner
- [Ext] setCAKERewardsFee #
 - modifiers: onlyOwner
- [Ext] setLiquiditFee #
 - modifiers: onlyOwner
- [Ext] setMarketingFee #
 - modifiers: onlyOwner
- [Pub] setAutomatedMarketMakerPair #
 - modifiers: onlyOwner
- [Ext] blacklistAddress #
 - modifiers: onlyOwner
- [Prv] _setAutomatedMarketMakerPair #
- [Pub] updateGasForProcessing #
 - modifiers: onlyOwner
- [Ext] updateClaimWait #
 - modifiers: onlyOwner
- [Ext] getClaimWait
- [Ext] getTotalDividendsDistributed
- [Pub] isExcludedFromFees
- [Pub] withdrawableDividendOf
- [Pub] dividendTokenBalanceOf
- [Ext] excludeFromDividends #
 - modifiers: onlyOwner
- [Ext] getAccountDividendsInfo
- [Ext] getAccountDividendsInfoAtIndex
- [Ext] processDividendTracker #
- [Ext] claim #
- [Ext] getLastProcessedIndex
- [Ext] getNumberOfDividendTokenHolders
- [Int] _transfer #
- [Prv] swapAndSendToFee #
- [Prv] swapAndLiquify #
- [Prv] swapTokensForEth #
- [Prv] swapTokensForCake #
- [Prv] addLiquidity #
- [Prv] swapAndSendDividends #

+ **BABYCAKEDividendTracker** (Ownable, DividendPayingToken)

- **[Pub]** <Constructor> #
 - modifiers: DividendPayingToken
- **[Int]** _transfer #
- **[Pub]** withdrawDividend #
- **[Ext]** excludeFromDividends #
 - modifiers: onlyOwner
- **[Ext]** updateClaimWait #
 - modifiers: onlyOwner
- **[Ext]** getLastProcessedIndex
- **[Ext]** getNumberOfTokenHolders
- **[Pub]** getAccount
- **[Pub]** getAccountAtIndex
- **[Prv]** canAutoClaim
- **[Ext]** setBalance #
 - modifiers: onlyOwner
- **[Pub]** process #
- **[Pub]** processAccount #
 - modifiers: onlyOwner

(\$) = payable function

= non-constant function

Issues Checking Status

Issue description		Checking status
1.	Compiler errors.	Passed
2.	Race conditions and Reentrancy. Cross-function race conditions.	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 of the contract.	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 Open Zeppelin contracts implementation and usage.	Passed
21.	Fallback function security.	Passed

Security Issues

✓ High Severity Issues

No high severity issues found.

✓ Medium Severity Issues

No medium severity issues found.

✓ Low Severity Issues

No low severity issues found.

Notes:

- Dividend tracker may be changed. So that logic of setBalance and other functions could be another and not audited.

Owner privileges (In the period when the owner is not renounced)

- Owner can change dividend tracker.
- Owner can change Uniswap router address.
- Owner can exclude from the fees.
- Owner can blacklist addresses.
- Owner can change liquidity, marketing and CAKE reward fees.
- Owner can exclude and include addresses in automatedMarketMakerPairs array.
- Owner can exclude from dividends.
- Owner can change marketing wallet.
- Owner can change gas for processing.
- Owner can update claimWait value.

Conclusion

Smart contracts do not contain high severity issues! Liquidity pair contract's security is not checked due to out of scope. The further transfers and operations with the funds raise are not related to this particular contract.

Liquidity locking details provided by the team:

https://dxsale.app/app/v2_9/dxlockview?id=0&add=0xB2f0A31695a1e7Df0503F7cdFfa201C3A444982B&type=lplock&chain=BSC

TechRate note:

Please check the disclaimer above and note, the audit makes no statements or warranties on business model, investment attractiveness or code sustainability. The report is provided for the only contract mentioned in the report and does not include any other potential contracts deployed by Owner.



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