



Project Dreams
Smart Contract
Audit Report

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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain
Project Dreams	PRO	BSC

Addresses

Contract address	0x83e575d69397541Cf89f80758eeE63bdA8345Bf6
Contract deployer address	0xaD7f4232371416FdFD8f7E5D1C43E2B90CdB50cA

Project Website

<https://projectdreams.net/>

Codebase

<https://bscscan.com/address/0x83e575d69397541Cf89f80758eeE63bdA8345Bf6#code>

SUMMARY

Project Dreams Token (\$PRO) is an auto liquidity and auto BUSD rewarding BEP20 token. A percent of all buys and sells will auto-generate liquidity and also send BUSD rewards to Project Dreams token holders.

Contract Summary

Documentation Quality

The amount of documentation in this project is GOOD.

- The technical description is provided.

Code Quality

The Overall quality of the code is GOOD

- The official Solidity style guide is followed.

Test Coverage

Test coverage of the project is 100% (Through Codebase)

Audit Findings Summary

- SWC-101 | Arithmetic operation discovered on lines 23, 32, 42, 43, 51, 58, 63, 67, 71, 75, 79, 85, 92, 99, 266, 269, 353, 354, 359, 401, 402, 421, 469, 575, 581, 655, 701, 718 and 749.
- SWC-101 | Compiler-rewritable " - 1" discovered on lines 401 and 402.
- SWC-103 | A floating pragma is set on line 12, The current pragma Solidity directive is ""^0.8.0"".
- SWC-108 | State variable visibility is not set on lines 244, 252, 253, 254, 256, 257, 258, 271, 273, 411, 413, 414, 415, 421, 424, 425, 427, 428, 429, 431, 432, 433, 434, 435, 436, 441, 442, 450, 451, 452, 453, 456, 457, 458, 459, 460, 461, 463, 466 and 470. It is best practice to set the visibility of state variables explicitly to public or private.
- SWC-110 | Out of bounds array access on lines 316, 317, 347, 348, 401, 402, 613, 614, 680 and 681.
- SWC-120 | Potential use of "block.number" as source of randomness on lines 575, 655, 673, 697 and 713.

CONCLUSION

This report has been prepared for Project Dreams to discover issues and vulnerabilities in the source code of the Project Dreams project as well as any contract dependencies that were not part of an officially recognized library.

The security assessment resulted in findings that ranged from critical to informational.

Most issues found were low severity and any critical issue such as High Vulnerability was not found. Except for all other issues that were of negligible importance and mostly referred to coding standards and inefficiencies such as an arithmetic operation, a floating pragma, state variable visibility, and the use of "block.number" as a source of randomness.

AUDIT RESULT

Article	Category	Description	Result
Default Visibility	SWC-100 SWC-108	Functions and state variables visibility should be set explicitly. Visibility levels should be specified consciously.	ISSUE FOUND
Integer Overflow and Underflow	SWC-101	If unchecked math is used, all math operations should be safe from overflows and underflows.	ISSUE FOUND
Outdated Compiler Version	SWC-102	It is recommended to use a recent version of the Solidity compiler.	PASS
Floating Pragma	SWC-103	Contracts should be deployed with the same compiler version and flags that they have been tested thoroughly.	ISSUE FOUND
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	PASS
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	PASS
Check-Effect Interaction	SWC-107	Check-Effect-Interaction pattern should be followed if the code performs ANY external call.	PASS
Assert Violation	SWC-110	Properly functioning code should never reach a failing assert statement.	ISSUE FOUND
Deprecated Solidity Functions	SWC-111	Deprecated built-in functions should never be used.	PASS
Delegate call to Untrusted Caller	SWC-112	Delegatecalls should only be allowed to trusted addresses.	PASS
DoS (Denial of Service)	SWC-113 SWC-128	Execution of the code should never be blocked by a specific contract state unless required.	PASS
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	PASS

Authorization through tx.origin	SWC-115	tx.origin should not be used for authorization.	PASS
Block values as a proxy for time	SWC-116	Block numbers should not be used for time calculations.	PASS
Signature Unique Id	SWC-117 SWC-121 SWC-122	Signed messages should always have a unique id. A transaction hash should not be used as a unique id.	PASS
Shadowing State Variable	SWC-119	State variables should not be shadowed.	PASS
Weak Sources of Randomness	SWC-120	Random values should never be generated from Chain Attributes or be predictable.	ISSUE FOUND
Incorrect Inheritance Order	SWC-125	When inheriting multiple contracts, especially if they have identical functions, a developer should carefully specify inheritance in the correct order. The rule of thumb is to inherit contracts from more /general/ to more /specific/.	PASS

SMART CONTRACT ANALYSIS

Started	Mon Jan 30 2023 02:35:23 GMT+0000 (Coordinated Universal Time)
Finished	Mon Jan 30 2023 02:35:32 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	pro.sol

Detected Issues

ID	Title	Severity	Status
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "%" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "**" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "++" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "-" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "*" DISCOVERED	low	acknowledged

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 71

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
70  function mul(uint256 a, uint256 b) internal pure returns (uint256) {  
71  return a * b;  
72  }
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 75

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
74  function div(uint256 a, uint256 b) internal pure returns (uint256) {  
75  return a / b;  
76  }  
77  |
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 85

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
84   require(b <= a, errorMessage);  
85   return a - b;  
86   }  
87   }
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 92

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
91   require(b > 0, errorMessage);
92   return a / b;
93   }
94   }
```

SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 99

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
98  require(b > 0, errorMessage);
99  return a % b;
100 }
101 }
```


SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 266

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
265 uint256 public dividendsPerShare;  
266 uint256 public dividendsPerShareAccuracyFactor = 10 ** 36;  
267 uint256 public minPeriod = 1 hours;  
268 |
```

SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 269

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
268 uint256 public minPeriod = 1 hours;  
269 uint256 public minDistribution = 1 * (10 ** 18);  
270 uint256 currentIndex;  
271 |
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 269

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
268 uint256 public minPeriod = 1 hours;  
269 uint256 public minDistribution = 1 * (10 ** 18);  
270 uint256 currentIndex;  
271 |
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 353

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
352 gasLeft = gasleft();
353 currentIndex++;
354 iterations++;
355 }
356 |
```

SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 354

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
353     currentIndex++;  
354     iterations++;  
355 }  
356 }
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 359

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
358     function shouldDistribute(address shareholder) internal view returns (bool) {
359         return shareholderClaims[shareholder] + minPeriod < block.timestamp
360             && getUnpaidEarnings(shareholder) > minDistribution;
361     }
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 401

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
400 function removeShareholder(address shareholder) internal {
401     shareholders[shareholderIndexes[shareholder]] = shareholders[shareholders.length-
1];
402     shareholderIndexes[shareholders[shareholders.length-1]] =
shareholderIndexes[shareholder];
403     shareholders.pop();
```

SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 402

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
401  shareholders[shareholderIndexes[shareholder]] = shareholders[shareholders.length-1];
402  shareholderIndexes[shareholders[shareholders.length-1]] = shareholderIndexes[shareholder];
403  shareholders.pop();
404  }
```


SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 421

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
420  uint8 constant _decimals = 18;
421  uint256 _totalSupply = 1_000_000_000_000_000 * (10 ** _decimals);
422  uint256 public _maxTxAmount = _totalSupply.div(100); // 1%
423  |
```

SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 421

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
420  uint8 constant _decimals = 18;
421  uint256 _totalSupply = 1_000_000_000_000_000 * (10 ** _decimals);
422  uint256 public _maxTxAmount = _totalSupply.div(100); // 1%
423  |
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 469

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
468 bool public swapEnabled = true;
469 uint256 public swapThreshold = _totalSupply / 2000; // 0.005%
470 bool inSwap;
471 modifier swapping() { inSwap = true; _; inSwap = false; }
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 575

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
574 function getTotalFee(bool selling) public view returns (uint256) {  
575     if(launchedAt + 1 >= block.number){ return feeDenominator.sub(1); }  
576     if(selling){ return getMultipliedFee(); }  
577     return totalFee;
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 581

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
580 function getMultipliedFee() public view returns (uint256) {
581   if (launchedAtTimestamp + 1 days > block.timestamp) {
582     return totalFee.mul(18000).div(feeDenominator);
583   } else if (buybackMultiplierTriggeredAt.add(buybackMultiplierLength) >
block.timestamp) {
```

SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 655

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
654    && autoBuybackEnabled
655    && autoBuybackBlockLast + autoBuybackBlockPeriod <= block.number // After N blocks
from last buyback
656    && address(this).balance >= autoBuybackAmount;
657    }
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 701

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
700 function setBuybackMultiplierSettings(uint256 numerator, uint256 denominator,
uint256 length) external authorized {
701     require(numerator / denominator <= 2 && numerator > denominator);
702     buybackMultiplierNumerator = numerator;
703     buybackMultiplierDenominator = denominator;
```

SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 718

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
717 function setTxLimit(uint256 amount) external authorized {  
718     require(amount >= _totalSupply / 1000);  
719     _maxTxAmount = amount;  
720 }
```


SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 749

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
748     require(totalFee <= 2500, "Total fees must be less than or equal to 25%");
749     require(totalFee < feeDenominator/4);
750   }
751   |
```

SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED

LINE 401

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
400 function removeShareholder(address shareholder) internal {
401     shareholders[shareholderIndexes[shareholder]] = shareholders[shareholders.length-
1];
402     shareholderIndexes[shareholders[shareholders.length-1]] =
shareholderIndexes[shareholder];
403     shareholders.pop();
```

SWC-101 | COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED

LINE 402

low SEVERITY

This plugin produces issues to support false positive discovery within Mythril.

Source File

- pro.sol

Locations

```
401  shareholders[shareholderIndexes[shareholder]] = shareholders[shareholders.length-1];
402  shareholderIndexes[shareholders[shareholders.length-1]] = shareholderIndexes[shareholder];
403  shareholders.pop();
404  }
```

SWC-103 | A FLOATING PRAGMA IS SET

LINE 11

low SEVERITY

The current pragma Solidity directive is ""^0.8.0"". It is recommended to specify a fixed compiler version to ensure that the bytecode produced does not vary between builds. This is especially important if you rely on bytecode-level verification of the code.

Source File

- pro.sol

Locations

```
10 //SPDX-License-Identifier: MIT
11 pragma solidity ^0.8.0;
12 |
13 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 244

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_token" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
243 using SafeMath for uint256;
244 address _token;
245 struct Share {
246 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 252

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "BUSD" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
251     }  
252     IBEP20 BUSD = IBEP20(0xe9e7CEA3DedcA5984780Bafc599bD69ADd087D56);  
253     address WBNB = 0xbb4CdB9CBd36B01bD1cBaEBF2De08d9173bc095c;  
254     IDEXRouter router;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 253

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "WBNB" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
252  IBEP20 BUSD = IBEP20(0xe9e7CEA3DedcA5984780Bafc599bd69ADd087D56);  
253  address WBNB = 0xbb4CdB9CBd36B01bD1cBaEBF2De08d9173bc095c;  
254  IDEXRouter router;  
255  |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 254

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "router" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
253 address WBNB = 0xbb4CdB9CBd36B01bD1cBaEbf2De08d9173bc095c;  
254 IDEXRouter router;  
255 address[] shareholders;  
256 |
```


SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 256

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "shareholders" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
255  IDEXRouter router;  
256  address[] shareholders;  
257  mapping (address => uint256) shareholderIndexes;  
258  mapping (address => uint256) shareholderClaims;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 257

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "shareholderIndexes" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
256 address[] shareholders;  
257 mapping (address => uint256) shareholderIndexes;  
258 mapping (address => uint256) shareholderClaims;  
259 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 258

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "shareholderClaims" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
257 mapping (address => uint256) shareholderIndexes;  
258 mapping (address => uint256) shareholderClaims;  
259 mapping (address => Share) public shares;  
260 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 271

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "currentIndex" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
270 uint256 public minDistribution = 1 * (10 ** 18);
271 uint256 currentIndex;
272 bool initialized;
273 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 273

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "initialized" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
272 uint256 currentIndex;  
273 bool initialized;  
274 modifier initialization() {  
275     require(!initialized);
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 411

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "BUSD" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
410 uint256 public constant MASK = type(uint128).max;
411 address BUSD = 0xe9e7CEA3DedcA5984780Bafc599bD69ADd087D56;
412 address public WBNB = 0xbb4CdB9CBd36B01bD1cBaEbf2De08d9173bc095c;
413 address DEAD = 0x00000000000000000000000000000000deEaD;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 413

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "DEAD" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
412 address public WBNB = 0xbb4CdB9CBd36B01bD1cBaEaF2De08d9173bc095c;  
413 address DEAD = 0x00000000000000000000000000000000dEaD;  
414 address ZERO = 0x00000000000000000000000000000000;  
415 address DEAD_NON_CHECKSUM = 0x00000000000000000000000000000000dEaD;
```


SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 415

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_totalSupply" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
414 uint8 constant _decimals = 18;
415 uint256 _totalSupply = 1_000_000_000_000_000 * (10 ** _decimals);
416 uint256 public _maxTxAmount = _totalSupply.div(100); // 1%
417 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 424

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_balances" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
423  uint256 public _maxTxAmount = _totalSupply.div(100); // 1%
424  mapping (address => uint256) _balances;
425  mapping (address => mapping (address => uint256)) _allowances;
426  |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 425

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "_allowances" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
424 mapping (address => uint256) _balances;  
425 mapping (address => mapping (address => uint256)) _allowances;  
426 mapping (address => bool) isFeeExempt;  
427 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 427

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "isFeeExempt" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
426 mapping (address => mapping (address => uint256)) _allowances;  
427 mapping (address => bool) isFeeExempt;  
428 mapping (address => bool) isTxLimitExempt;  
429 mapping (address => bool) isDividendExempt;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 428

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "isTxLimitExempt" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
427 mapping (address => bool) isFeeExempt;  
428 mapping (address => bool) isTxLimitExempt;  
429 mapping (address => bool) isDividendExempt;  
430 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 429

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "isDividendExempt" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
428 mapping (address => bool) isTxLimitExempt;  
429 mapping (address => bool) isDividendExempt;  
430 uint256 liquidityFee = 200;  
431 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 431

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "liquidityFee" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
430 mapping (address => bool) isDividendExempt;  
431 uint256 liquidityFee = 200;  
432 uint256 buybackFee = 100;  
433 uint256 reflectionFee = 100;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 432

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "buybackFee" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
431 uint256 liquidityFee = 200;  
432 uint256 buybackFee = 100;  
433 uint256 reflectionFee = 100;  
434 uint256 marketingFee = 200;
```


SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 433

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "reflectionFee" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
432 uint256 buybackFee = 100;  
433 uint256 reflectionFee = 100;  
434 uint256 marketingFee = 200;  
435 uint256 totalFee = 600;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 434

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "marketingFee" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
433 uint256 reflectionFee = 100;  
434 uint256 marketingFee = 200;  
435 uint256 totalFee = 600;  
436 uint256 feeDenominator = 10000;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 435

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "totalFee" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
434 uint256 marketingFee = 200;  
435 uint256 totalFee = 600;  
436 uint256 feeDenominator = 10000;  
437 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 436

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "feeDenominator" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
435 uint256 totalFee = 600;  
436 uint256 feeDenominator = 10000;  
437 address public autoLiquidityReceiver;  
438 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 441

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "targetLiquidity" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
440 address public marketingFeeReceiver;  
441 uint256 targetLiquidity = 25;  
442 uint256 targetLiquidityDenominator = 100;  
443 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 450

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "buybackMultiplierNumerator" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
449 uint256 public launchedAtTimestamp;  
450 uint256 buybackMultiplierNumerator = 200;  
451 uint256 buybackMultiplierDenominator = 100;  
452 uint256 buybackMultiplierTriggeredAt;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 451

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "buybackMultiplierDenominator" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
450 uint256 buybackMultiplierNumerator = 200;  
451 uint256 buybackMultiplierDenominator = 100;  
452 uint256 buybackMultiplierTriggeredAt;  
453 uint256 buybackMultiplierLength = 30 minutes;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 452

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "buybackMultiplierTriggeredAt" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
451 uint256 buybackMultiplierDenominator = 100;  
452 uint256 buybackMultiplierTriggeredAt;  
453 uint256 buybackMultiplierLength = 30 minutes;  
454 |
```


SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 453

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "buybackMultiplierLength" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
452 uint256 buybackMultiplierTriggeredAt;  
453 uint256 buybackMultiplierLength = 30 minutes;  
454 bool public autoBuybackEnabled = false;  
455 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 456

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "buyBacker" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
455 bool public autoBuybackEnabled = false;
456 mapping (address => bool) buyBacker;
457 uint256 autoBuybackCap;
458 uint256 autoBuybackAccumulator;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 457

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "autoBuybackCap" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
456 mapping (address => bool) buyBacker;  
457 uint256 autoBuybackCap;  
458 uint256 autoBuybackAccumulator;  
459 uint256 autoBuybackAmount;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 458

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "autoBuybackAccumulator" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
457 uint256 autoBuybackCap;  
458 uint256 autoBuybackAccumulator;  
459 uint256 autoBuybackAmount;  
460 uint256 autoBuybackBlockPeriod;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 459

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "autoBuybackAmount" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
458 uint256 autoBuybackAccumulator;  
459 uint256 autoBuybackAmount;  
460 uint256 autoBuybackBlockPeriod;  
461 uint256 autoBuybackBlockLast;
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 460

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "autoBuybackBlockPeriod" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
459 uint256 autoBuybackAmount;  
460 uint256 autoBuybackBlockPeriod;  
461 uint256 autoBuybackBlockLast;  
462 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 461

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "autoBuybackBlockLast" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
460 uint256 autoBuybackBlockPeriod;  
461 uint256 autoBuybackBlockLast;  
462 DividendDistributor distributor;  
463 |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 463

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "distributor" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
462 uint256 autoBuybackBlockLast;  
463 DividendDistributor distributor;  
464 address public distributorAddress;  
465 |
```


SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 466

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "distributorGas" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
465     address public distributorAddress;  
466     uint256 distributorGas = 500000;  
467     bool public swapEnabled = true;  
468     |
```

SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET

LINE 470

low SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "inSwap" is internal. Other possible visibility settings are public and private.

Source File

- pro.sol

Locations

```
469 uint256 public swapThreshold = _totalSupply / 2000; // 0.005%
470 bool inSwap;
471 modifier swapping() { inSwap = true; _; inSwap = false; }
472 |
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 316

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
315 address[] memory path = new address[](2);
316 path[0] = WBNB;
317 path[1] = address(BUSD);
318 |
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 317

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
316 path[0] = WBNB;  
317 path[1] = address(BUSD);  
318 router.swapExactETHForTokensSupportingFeeOnTransferTokens{value: msg.value}(  
319 |
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 347

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
346     }  
347     if(shouldDistribute(shareholders[currentIndex])){  
348         distributeDividend(shareholders[currentIndex]);  
349     }
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 348

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
347   if(shouldDistribute(shareholders[currentIndex])){  
348       distributeDividend(shareholders[currentIndex]);  
349   }  
350   |
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 401

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
400 function removeShareholder(address shareholder) internal {
401   shareholders[shareholderIndexes[shareholder]] = shareholders[shareholders.length-
1];
402   shareholderIndexes[shareholders[shareholders.length-1]] =
shareholderIndexes[shareholder];
403   shareholders.pop();
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 402

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
401  shareholders[shareholderIndexes[shareholder]] = shareholders[shareholders.length-1];
402  shareholderIndexes[shareholders[shareholders.length-1]] = shareholderIndexes[shareholder];
403  shareholders.pop();
404  }
```


SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 613

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
612 address[] memory path = new address[](2);
613 path[0] = address(this);
614 path[1] = WBNB;
615 uint256 balanceBefore = address(this).balance;
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 614

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
613 path[0] = address(this);
614 path[1] = WBNB;
615 uint256 balanceBefore = address(this).balance;
616 |
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 680

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
679 address[] memory path = new address[](2);
680 path[0] = WBNB;
681 path[1] = address(this);
682 |
```

SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 681

low SEVERITY

The index access expression can cause an exception in case of use of invalid array index value.

Source File

- pro.sol

Locations

```
680 path[0] = WBNB;  
681 path[1] = address(this);  
682 router.swapExactETHForTokensSupportingFeeOnTransferTokens{value: amount}(  
683 |
```

SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS

LINE 575

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- pro.sol

Locations

```
574 function getTotalFee(bool selling) public view returns (uint256) {
575     if(launchedAt + 1 >= block.number){ return feeDenominator.sub(1); }
576     if(selling){ return getMultipliedFee(); }
577     return totalFee;
```

SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS

LINE 655

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- pro.sol

Locations

```
654    && autoBuybackEnabled
655    && autoBuybackBlockLast + autoBuybackBlockPeriod <= block.number // After N blocks
from last buyback
656    && address(this).balance >= autoBuybackAmount;
657    }
```

SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS

LINE 673

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- pro.sol

Locations

```
672 buyTokens(autoBuybackAmount, DEAD);
673 autoBuybackBlockLast = block.number;
674 autoBuybackAccumulator = autoBuybackAccumulator.add(autoBuybackAmount);
675 if(autoBuybackAccumulator > autoBuybackCap){ autoBuybackEnabled = false; }
```

SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS

LINE 697

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- pro.sol

Locations

```
696 autoBuybackBlockPeriod = _period;  
697 autoBuybackBlockLast = block.number;  
698 }  
699 |
```


SWC-120 | POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS

LINE 713

low SEVERITY

The environment variable "block.number" looks like it might be used as a source of randomness. Note that the values of variables like coinbase, gaslimit, block number and timestamp are predictable and can be manipulated by a malicious miner. Also keep in mind that attackers know hashes of earlier blocks. Don't use any of those environment variables as sources of randomness and be aware that use of these variables introduces a certain level of trust into miners.

Source File

- pro.sol

Locations

```
712   require(launchedAt == 0, "Already launched boi");  
713   launchedAt = block.number;  
714   launchedAtTimestamp = block.timestamp;  
715 }
```

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