



BunnyVerse

# Smart Contract Audit Report

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# AUDITED DETAILS

## Audited Project

Project name	Token ticker	Blockchain
BunnyVerse	BNV	Ethereum

## Addresses

Contract address	0x072987D5B36aD8d45552aEd98879a7101cCdd749
Contract deployer address	0x1578265d37E4abDAeBA400674ad4f720439F7c79

## Project Website

<a href="https://bunny-verse.com/">https://bunny-verse.com/</a>
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## Codebase

<a href="https://etherscan.io/address/0x072987D5B36aD8d45552aEd98879a7101cCdd749#code">https://etherscan.io/address/0x072987D5B36aD8d45552aEd98879a7101cCdd749#code</a>
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# SUMMARY

BunnyVerse (BNV) is more than just a meme. It is an ERC 20 token with the actual utility connected to it. The BunnyVerse team has the ambition to create its ecosystem. Our ecosystem will work hard to deliver the best products within the crypto, web3 and metaverse space. The BunnyVerse will be a platform and launchpad for newly developed and released games targeting sophisticated gaming audiences.

## Contract Summary

### Documentation Quality

BunnyVerse provides a very good documentation with standard of solidity base code.

- The technical description is provided clearly and structured and also don't have any high risk issue.

### Code Quality

The Overall quality of the basecode is standard.

- Standard solidity basecode and rules are already followed by BunnyVerse with the discovery of several low issues.

### Test Coverage

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

## Audit Findings Summary

- SWC-100 SWC-108 | Explicitly define visibility for all state variables on lines 682.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 50, 66, 76, 77, 92, 108, 619, 619, 620, 620, 668, 719, 719, 720, 720, 721, 721, 874, 903, 932, 963, 978, 980, 1024, 1044, 1051, 1079, 1087, 1104, 1104, 1110, 1110, 1115, 1140, 1144, 1144, 1144, 1155, 1378, 1392, 1392, 1392, 1393, 1393, 1393, 1393, 1395, 1395, 1395, 1396, 1396, 1396, 1406, 1414, 1451, 1451, 1461, 1461 and 980.
- SWC-110 SWC-123 | It is recommended to use of revert(), assert(), and require() in Solidity, and the new REVERT opcode in the EVM on lines 875, 933, 934, 979, 980, 980, 1171, 1172, 1380, 1381, 1383, 1384, 1483 and 1484.
- SWC-115 | tx.origin should not be used for authorization, use msg.sender instead on lines 1036 and 1037.
- SWC-120 | It is recommended to use external sources of randomness via oracles on lines 865, 1024, 1036 and 1037.

## CONCLUSION

We have audited the BunnyVerse project released on December 2022 to discover issues and identify potential security vulnerabilities in BunnyVerse Project. This process is used to find technical issues and security loopholes which might be found in the smart contract.

The security audit report provides a satisfactory result with some low-risk issues.

The issues found in the BunnyVerse smart contract code do not pose a considerable risk. The writing of the contract is close to the standard of writing contracts in general. The low-risk issues found are some arithmetic operation issues, a state variable visibility is not set, weak sources of randomness, tx.origin as a part of authorization control and out of bounds array access which the index access expression can cause an exception in case of the use of an invalid array index value. We recommend avoiding using "tx.origin". The tx.origin environment variable has been found to influence a control flow decision. Note that using "tx.origin" as a security control might cause a situation where a user inadvertently authorizes a smart contract to perform an action on their behalf. It is recommended to use "msg.sender" instead.

# 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.	PASS
Unchecked Call Return Value	SWC-104	The return value of a message call should be checked.	PASS
Unprotected Ether Withdrawal	SWC-105	Due to missing or insufficient access controls, malicious parties can withdraw from the contract.	PASS
SELFDESTRUCT Instruction	SWC-106	The contract should not be self-destructible while it has funds belonging to users.	PASS
Reentrancy	SWC-107	Check effect interaction pattern should be followed if the code performs recursive call.	PASS
Uninitialized Storage Pointer	SWC-109	Uninitialized local storage variables can point to unexpected storage locations in the contract.	PASS
Assert Violation	SWC-110 SWC-123	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 Callee	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.	ISSUE FOUND
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
Incorrect Constructor Name	SWC-118	Constructors are special functions that are called only once during the contract creation.	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
Write to Arbitrary Storage Location	SWC-124	The contract is responsible for ensuring that only authorized user or contract accounts may write to sensitive storage locations.	PASS
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
Insufficient Gas Griefing	SWC-126	Insufficient gas grieving attacks can be performed on contracts which accept data and use it in a sub-call on another contract.	PASS
Arbitrary Jump Function	SWC-127	As Solidity doesnt support pointer arithmetics, it is impossible to change such variable to an arbitrary value.	PASS

Typographical Error	SWC-129	A typographical error can occur for example when the intent of a defined operation is to sum a number to a variable.	PASS
Override control character	SWC-130	Malicious actors can use the Right-To-Left-Override unicode character to force RTL text rendering and confuse users as to the real intent of a contract.	PASS
Unused variables	SWC-131 SWC-135	Unused variables are allowed in Solidity and they do not pose a direct security issue.	PASS
Unexpected Ether balance	SWC-132	Contracts can behave erroneously when they strictly assume a specific Ether balance.	PASS
Hash Collisions Variable	SWC-133	Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	PASS
Hardcoded gas amount	SWC-134	The transfer() and send() functions forward a fixed amount of 2300 gas.	PASS
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	PASS



# SMART CONTRACT ANALYSIS

Started	Tuesday Dec 20 2022 19:41:40 GMT+0000 (Coordinated Universal Time)
Finished	Wednesday Dec 21 2022 02:00:16 GMT+0000 (Coordinated Universal Time)
Mode	Standard
Main Source File	BUNNYVERSE.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	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	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	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	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	COMPILER-REWRITABLE "<UINT> - 1" DISCOVERED	low	acknowledged

SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-115	USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.	low	acknowledged
SWC-115	USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-110	OUT OF BOUNDS ARRAY ACCESS	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged
SWC-120	POTENTIAL USE OF "BLOCK.NUMBER" AS SOURCE OF RANDOMNESS.	low	acknowledged

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 50

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
49  function add(uint256 a, uint256 b) internal pure returns (uint256) {  
50      uint256 c = a + b;  
51      require(c >= a, "SafeMath: addition overflow");  
52  
53      return c;  
54  }
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 66

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
65   require(b <= a, errorMessage);  
66   uint256 c = a - b;  
67  
68   return c;  
69   }  
70
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 76

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
75
76  uint256 c = a * b;
77  require(c / a == b, "SafeMath: multiplication overflow");
78
79  return c;
80
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 77

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
76  uint256 c = a * b;  
77  require(c / a == b, "SafeMath: multiplication overflow");  
78  
79  return c;  
80  }  
81
```



# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 92

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
91  require(b > 0, errorMessage);
92  uint256 c = a / b;
93  // assert(a == b * c + a % b); // There is no case in which this doesn't hold
94
95  return c;
96
```

# SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 108

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
107     require(b != 0, errorMessage);
108     return a % b;
109 }
110 }
111
112
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 619

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
618  uint256 private constant MAX = ~uint256(0);
619  uint256 private constant _tTotal = 1 * 1e12 * 1e18;
620  uint256 private _rTotal = (MAX - (MAX % _tTotal));
621  uint256 private _tFeeTotal;
622
623
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 619

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
618 uint256 private constant MAX = ~uint256(0);
619 uint256 private constant _tTotal = 1 * 1e12 * 1e18;
620 uint256 private _rTotal = (MAX - (MAX % _tTotal));
621 uint256 private _tFeeTotal;
622
623
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 620

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
619  uint256 private constant _tTotal = 1 * 1e12 * 1e18;  
620  uint256 private _rTotal = (MAX - (MAX % _tTotal));  
621  uint256 private _tFeeTotal;  
622  
623  string private constant _name = "BunnyVerse";  
624
```

# SWC-101 | ARITHMETIC OPERATION "%" DISCOVERED

LINE 620

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
619  uint256 private constant _tTotal = 1 * 1e12 * 1e18;  
620  uint256 private _rTotal = (MAX - (MAX % _tTotal));  
621  uint256 private _tFeeTotal;  
622  
623  string private constant _name = "BunnyVerse";  
624
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 668

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
667     bool private gasLimitActive = true;
668     uint256 private gasPriceLimit = 602 * 1 gwei;
669
670     // store addresses that a automatic market maker pairs. Any transfer *to* these
addresses
671     // could be subject to a maximum transfer amount
672
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 719

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
718
719     maxTransactionAmount = _tTotal * 50 / 10000; // 0.5% max txn
720     minimumTokensBeforeSwap = _tTotal * 5 / 10000; // 0.05%
721     maxWallet = _tTotal * 100 / 10000; // 1%
722
723
```



# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 719

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
718
719     maxTransactionAmount = _tTotal * 50 / 10000; // 0.5% max txn
720     minimumTokensBeforeSwap = _tTotal * 5 / 10000; // 0.05%
721     maxWallet = _tTotal * 100 / 10000; // 1%
722
723
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 720

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
719     maxTransactionAmount = _tTotal * 50 / 10000; // 0.5% max txn
720     minimumTokensBeforeSwap = _tTotal * 5 / 10000; // 0.05%
721     maxWallet = _tTotal * 100 / 10000; // 1%
722
723     _rOwned[newOwner] = _rTotal;
724
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 720

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
719     maxTransactionAmount = _tTotal * 50 / 10000; // 0.5% max txn
720     minimumTokensBeforeSwap = _tTotal * 5 / 10000; // 0.05%
721     maxWallet = _tTotal * 100 / 10000; // 1%
722
723     _rOwned[newOwner] = _rTotal;
724
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 721

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
720     minimumTokensBeforeSwap = _tTotal * 5 / 10000; // 0.05%
721     maxWallet = _tTotal * 100 / 10000; // 1%
722
723     _rOwned[newOwner] = _rTotal;
724
725
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 721

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
720     minimumTokensBeforeSwap = _tTotal * 5 / 10000; // 0.05%
721     maxWallet = _tTotal * 100 / 10000; // 1%
722
723     _rOwned[newOwner] = _rTotal;
724
725
```

# SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 874

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
873     function manageSnipers(address[] calldata addresses, bool status) public onlyOwner
874     {
875         for (uint256 i; i < addresses.length; ++i) {
876             _isSniper[addresses[i]] = status;
877         }
878     }
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 903

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
902     require(gas >= 300);  
903     gasPriceLimit = gas * 1 gwei;  
904 }  
905  
906 // disable Transfer delay  
907
```

# SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 932

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
931  buyOrSellSwitch = TRANSFER;
932  for(uint256 i = 0; i < airdropWallets.length; i++){
933    address wallet = airdropWallets[i];
934    uint256 airdropAmount = amount[i];
935    _tokenTransfer(msg.sender, wallet, airdropAmount);
936
```



# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 963

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
962     require(!_isExcluded[account], "Account is already excluded");
963     require(_excluded.length + 1 <= 50, "Cannot exclude more than 50 accounts. Include
a previously excluded address.");
964     if (_rOwned[account] > 0) {
965         _tOwned[account] = tokenFromReflection(_rOwned[account]);
966     }
967
```

# SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 978

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
977     require(!_isExcluded[account], "Account is not excluded");
978     for (uint256 i = 0; i < _excluded.length; i++) {
979         if (_excluded[i] == account) {
980             _excluded[i] = _excluded[_excluded.length - 1];
981             _tOwned[account] = 0;
982         }
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 980

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
979     if (_excluded[i] == account) {  
980         _excluded[i] = _excluded[_excluded.length - 1];  
981         _tOwned[account] = 0;  
982         _isExcluded[account] = false;  
983         _excluded.pop();  
984     }
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1024

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1023     ){
1024     if(tradingActiveBlock > 0 && (tradingActiveBlock + deadBlocks) > block.number){
1025         _isSniper[to]=true;
1026     }
1027
1028
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1044

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1043     require(amount <= maxTransactionAmount, "Buy transfer amount exceeds the
maxTransactionAmount.");
1044     require(amount + balanceOf(to) <= maxWallet, "Cannot exceed max wallet");
1045 }
1046 //when sell
1047 else if (automatedMarketMakerPairs[to] && !_isExcludedMaxTransactionAmount[from])
{
1048
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1051

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1050     else if (!_isExcludedMaxTransactionAmount[to]){  
1051         require(amount + balanceOf(to) <= maxWallet, "Cannot exceed max wallet");  
1052     }  
1053 }  
1054 }  
1055
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1079

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1078     _taxFee = _buyTaxFee;
1079     _liquidityFee = _buyLiquidityFee + _buyMarketingFee;
1080     if(_liquidityFee > 0){
1081         buyOrSellSwitch = BUY;
1082     }
1083
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1087

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1086     _taxFee = _sellTaxFee;
1087     _liquidityFee = _sellLiquidityFee + _sellMarketingFee;
1088     if(_liquidityFee > 0){
1089         buyOrSellSwitch = SELL;
1090     }
1091
```



## SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1104

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1103     require(percent <= 50, "Swap amount cannot be higher than 0.5% total supply.");
1104     minimumTokensBeforeSwap = _tTotal * percent / 10000;
1105     return true;
1106 }
1107
1108
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 1104

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1103     require(percent <= 50, "Swap amount cannot be higher than 0.5% total supply.");
1104     minimumTokensBeforeSwap = _tTotal * percent / 10000;
1105     return true;
1106 }
1107
1108
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1110

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1109     require(percent >= 10, "Cannot set maxTransactionAmount lower than 0.1%");
1110     maxTransactionAmount = _tTotal * percent / 10000;
1111 }
1112
1113 // percent 25 for .25%
1114
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 1110

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1109     require(percent >= 10, "Cannot set maxTransactionAmount lower than 0.1%");
1110     maxTransactionAmount = _tTotal * percent / 10000;
1111 }
1112
1113 // percent 25 for .25%
1114
```

## SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1115

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1114     function manualBurnLiquidityPairTokens(uint256 percent) external onlyOwner returns
      (bool){
1115         require(block.timestamp > lastManualLpBurnTime + manualBurnFrequency , "Must wait
      for cooldown to finish");
1116         require(percent <= 1000, "May not nuke more than 10% of tokens in LP");
1117         lastManualLpBurnTime = block.timestamp;
1118
1119     }
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1140

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1139     bool success;  
1140     uint256 totalTokensToSwap = _liquidityTokensToSwap + _marketingTokensToSwap;  
1141     if(totalTokensToSwap == 0 || contractBalance == 0){return;}  
1142  
1143     // Halve the amount of liquidity tokens  
1144
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1144

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1143 // Halve the amount of liquidity tokens
1144 uint256 tokensForLiquidity = (contractBalance * _liquidityTokensToSwap /
totalTokensToSwap) / 2;
1145 uint256 amountToSwapForBNB = contractBalance.sub(tokensForLiquidity);
1146
1147 uint256 initialBNBBalance = address(this).balance;
1148
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1144

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1143 // Halve the amount of liquidity tokens
1144 uint256 tokensForLiquidity = (contractBalance * _liquidityTokensToSwap /
totalTokensToSwap) / 2;
1145 uint256 amountToSwapForBNB = contractBalance.sub(tokensForLiquidity);
1146
1147 uint256 initialBNBBalance = address(this).balance;
1148
```



# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 1144

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1143 // Halve the amount of liquidity tokens
1144 uint256 tokensForLiquidity = (contractBalance * _liquidityTokensToSwap /
totalTokensToSwap) / 2;
1145 uint256 amountToSwapForBNB = contractBalance.sub(tokensForLiquidity);
1146
1147 uint256 initialBNBBalance = address(this).balance;
1148
```

# SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 1155

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1154
1155     uint256 bnbForLiquidity = bnbBalance - bnbForMarketing;
1156
1157     _liquidityTokensToSwap = 0;
1158     _marketingTokensToSwap = 0;
1159
```

# SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 1378

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1377     uint256 tSupply = _tTotal;
1378     for (uint256 i = 0; i < _excluded.length; i++) {
1379         if (
1380             _rOwned[_excluded[i]] > rSupply ||
1381             _tOwned[_excluded[i]] > tSupply
1382         ) {
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 1392

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1391     if(buyOrSellSwitch == BUY){
1392         _liquidityTokensToSwap += tLiquidity * _buyLiquidityFee / _liquidityFee;
1393         _marketingTokensToSwap += tLiquidity * _buyMarketingFee / _liquidityFee;
1394     } else if(buyOrSellSwitch == SELL){
1395         _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1396     }
```

## SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1392

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1391     if(buyOrSellSwitch == BUY){
1392         _liquidityTokensToSwap += tLiquidity * _buyLiquidityFee / _liquidityFee;
1393         _marketingTokensToSwap += tLiquidity * _buyMarketingFee / _liquidityFee;
1394     } else if(buyOrSellSwitch == SELL){
1395         _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1396     }
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 1392

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1391     if(buyOrSellSwitch == BUY){
1392         _liquidityTokensToSwap += tLiquidity * _buyLiquidityFee / _liquidityFee;
1393         _marketingTokensToSwap += tLiquidity * _buyMarketingFee / _liquidityFee;
1394     } else if(buyOrSellSwitch == SELL){
1395         _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1396     }
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 1393

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1392  _liquidityTokensToSwap += tLiquidity * _buyLiquidityFee / _liquidityFee;
1393  _marketingTokensToSwap += tLiquidity * _buyMarketingFee / _liquidityFee;
1394  } else if(buyOrSellSwitch == SELL){
1395  _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1396  _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;
1397
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1393

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1392  _liquidityTokensToSwap += tLiquidity * _buyLiquidityFee / _liquidityFee;
1393  _marketingTokensToSwap += tLiquidity * _buyMarketingFee / _liquidityFee;
1394  } else if(buyOrSellSwitch == SELL){
1395  _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1396  _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;
1397
```



# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 1393

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1392 _liquidityTokensToSwap += tLiquidity * _buyLiquidityFee / _liquidityFee;
1393 _marketingTokensToSwap += tLiquidity * _buyMarketingFee / _liquidityFee;
1394 } else if(buyOrSellSwitch == SELL){
1395 _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1396 _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;
1397
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 1395

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1394     } else if(buyOrSellSwitch == SELL){  
1395         _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;  
1396         _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;  
1397     }  
1398     uint256 currentRate = _getRate();  
1399
```

## SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1395

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1394     } else if(buyOrSellSwitch == SELL){  
1395         _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;  
1396         _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;  
1397     }  
1398     uint256 currentRate = _getRate();  
1399
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 1395

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1394     } else if(buyOrSellSwitch == SELL){  
1395         _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;  
1396         _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;  
1397     }  
1398     uint256 currentRate = _getRate();  
1399
```

# SWC-101 | ARITHMETIC OPERATION "+=" DISCOVERED

LINE 1396

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1395     _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;
1396     _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;
1397 }
1398 uint256 currentRate = _getRate();
1399 uint256 rLiquidity = tLiquidity.mul(currentRate);
1400
```

# SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1396

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1395     _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;  
1396     _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;  
1397 }  
1398 uint256 currentRate = _getRate();  
1399 uint256 rLiquidity = tLiquidity.mul(currentRate);  
1400
```

# SWC-101 | ARITHMETIC OPERATION "\*" DISCOVERED

LINE 1396

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1395     _liquidityTokensToSwap += tLiquidity * _sellLiquidityFee / _liquidityFee;  
1396     _marketingTokensToSwap += tLiquidity * _sellMarketingFee / _liquidityFee;  
1397 }  
1398 uint256 currentRate = _getRate();  
1399 uint256 rLiquidity = tLiquidity.mul(currentRate);  
1400
```

# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 1406

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1405     function calculateTaxFee(uint256 _amount) private view returns (uint256) {  
1406         return _amount.mul(_taxFee).div(10**2);  
1407     }  
1408  
1409     function calculateLiquidityFee(uint256 _amount)  
1410
```



# SWC-101 | ARITHMETIC OPERATION "\*\*" DISCOVERED

LINE 1414

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1413 {  
1414     return _amount.mul(_liquidityFee).div(10**2);  
1415 }  
1416  
1417 function removeAllFee() private {  
1418
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1451

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1450     _buyMarketingFee = buyMarketingFee;
1451     require(_buyTaxFee + _buyLiquidityFee + _buyMarketingFee <= 15, "Must keep taxes
below 15%");
1452 }
1453
1454 function setSellFee(uint256 sellTaxFee, uint256 sellLiquidityFee, uint256
sellMarketingFee)
1455
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1451

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1450     _buyMarketingFee = buyMarketingFee;
1451     require(_buyTaxFee + _buyLiquidityFee + _buyMarketingFee <= 15, "Must keep taxes
below 15%");
1452 }
1453
1454 function setSellFee(uint256 sellTaxFee, uint256 sellLiquidityFee, uint256
sellMarketingFee)
1455
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1461

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1460     _sellMarketingFee = sellMarketingFee;
1461     require(_sellTaxFee + _sellLiquidityFee + _sellMarketingFee <= 25, "Must keep
taxes below 25%");
1462 }
1463
1464 function setMarketingAddress(address _marketingAddress) external onlyOwner {
1465
```

# SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1461

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1460     _sellMarketingFee = sellMarketingFee;
1461     require(_sellTaxFee + _sellLiquidityFee + _sellMarketingFee <= 25, "Must keep
taxes below 25%");
1462 }
1463
1464 function setMarketingAddress(address _marketingAddress) external onlyOwner {
1465
```

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

LINE 980

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
979     if (_excluded[i] == account) {  
980         _excluded[i] = _excluded[_excluded.length - 1];  
981         _tOwned[account] = 0;  
982         _isExcluded[account] = false;  
983         _excluded.pop();  
984     }
```

## SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 682

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
681
682  bool inSwapAndLiquify;
683  bool public swapAndLiquifyEnabled = false;
684
685  event RewardLiquidityProviders(uint256 tokenAmount);
686
```

# SWC-115 | USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.

LINE 1036

## low SEVERITY

The tx.origin environment variable has been found to influence a control flow decision. Note that using "tx.origin" as a security control might cause a situation where a user inadvertently authorizes a smart contract to perform an action on their behalf. It is recommended to use "msg.sender" instead.

## Source File

- BUNNYVERSE.sol

## Locations

```
1035   if (to != owner() && to != address(uniswapV2Router) && to !=  
address(uniswapV2Pair)){  
1036   require(_holderLastTransferTimestamp[tx.origin] < block.number, "_transfer::  
Transfer Delay enabled. Only one purchase per block allowed.");  
1037   _holderLastTransferTimestamp[tx.origin] = block.number;  
1038   }  
1039   }  
1040
```



# SWC-115 | USE OF "TX.ORIGIN" AS A PART OF AUTHORIZATION CONTROL.

LINE 1037

## low SEVERITY

Using "tx.origin" as a security control can lead to authorization bypass vulnerabilities. Consider using "msg.sender" unless you really know what you are doing.

## Source File

- BUNNYVERSE.sol

## Locations

```
1036     require(_holderLastTransferTimestamp[tx.origin] < block.number, "_transfer::  
Transfer Delay enabled.  Only one purchase per block allowed.");  
1037     _holderLastTransferTimestamp[tx.origin] = block.number;  
1038 }  
1039 }  
1040  
1041
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 875

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
874   for (uint256 i; i < addresses.length; ++i) {  
875     _isSniper[addresses[i]] = status;  
876   }  
877 }  
878  
879
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 933

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
932   for(uint256 i = 0; i < airdropWallets.length; i++){  
933       address wallet = airdropWallets[i];  
934       uint256 airdropAmount = amount[i];  
935       _tokenTransfer(msg.sender, wallet, airdropAmount);  
936   }  
937
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 934

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
933     address wallet = airdropWallets[i];
934     uint256 airdropAmount = amount[i];
935     _tokenTransfer(msg.sender, wallet, airdropAmount);
936 }
937 restoreAllFee();
938
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 979

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
978   for (uint256 i = 0; i < _excluded.length; i++) {  
979     if (_excluded[i] == account) {  
980       _excluded[i] = _excluded[_excluded.length - 1];  
981       _tOwned[account] = 0;  
982       _isExcluded[account] = false;  
983     }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 980

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
979     if (_excluded[i] == account) {  
980         _excluded[i] = _excluded[_excluded.length - 1];  
981         _tOwned[account] = 0;  
982         _isExcluded[account] = false;  
983         _excluded.pop();  
984     }
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 980

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
979   if (_excluded[i] == account) {  
980     _excluded[i] = _excluded[_excluded.length - 1];  
981     _tOwned[account] = 0;  
982     _isExcluded[account] = false;  
983     _excluded.pop();  
984
```

# SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1171

## low SEVERITY

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

## Source File

- BUNNYVERSE.sol

## Locations

```
1170     address[] memory path = new address[](2);
1171     path[0] = address(this);
1172     path[1] = uniswapV2Router.WETH();
1173     _approve(address(this), address(uniswapV2Router), tokenAmount);
1174     uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
1175
```



## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1172

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1171 path[0] = address(this);
1172 path[1] = uniswapV2Router.WETH();
1173 _approve(address(this), address(uniswapV2Router), tokenAmount);
1174 uniswapV2Router.swapExactTokensForETHSupportingFeeOnTransferTokens(
1175     tokenAmount,
1176
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1380

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1379     if (  
1380         _rOwned[_excluded[i]] > rSupply ||  
1381         _tOwned[_excluded[i]] > tSupply  
1382     ) return (_rTotal, _tTotal);  
1383     rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
1384
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1381

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1380  _rOwned[_excluded[i]] > rSupply ||  
1381  _tOwned[_excluded[i]] > tSupply  
1382  ) return (_rTotal, _tTotal);  
1383  rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
1384  tSupply = tSupply.sub(_tOwned[_excluded[i]]);  
1385
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1383

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1382     ) return (_rTotal, _tTotal);
1383     rSupply = rSupply.sub(_rOwned[_excluded[i]]);
1384     tSupply = tSupply.sub(_tOwned[_excluded[i]]);
1385     }
1386     if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);
1387
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1384

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1383   rSupply = rSupply.sub(_rOwned[_excluded[i]]);  
1384   tSupply = tSupply.sub(_tOwned[_excluded[i]]);  
1385   }  
1386   if (rSupply < _rTotal.div(_tTotal)) return (_rTotal, _tTotal);  
1387   return (rSupply, tSupply);  
1388
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1483

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1482     address[] memory path = new address[](2);
1483     path[0] = uniswapV2Router.WETH();
1484     path[1] = address(this);
1485
1486     // make the swap
1487
```

## SWC-110 | OUT OF BOUNDS ARRAY ACCESS

LINE 1484

### low SEVERITY

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

### Source File

- BUNNYVERSE.sol

### Locations

```
1483     path[0] = uniswapV2Router.WETH();
1484     path[1] = address(this);
1485
1486     // make the swap
1487     uniswapV2Router.swapExactETHForTokensSupportingFeeOnTransferTokens{value:
bnbAmountInWei}()
1488
```

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

LINE 865

### 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

- BUNNYVERSE.sol

### Locations

```
864  swapAndLiquifyEnabled = true;
865  tradingActiveBlock = block.number;
866  deadBlocks = _deadBlocks;
867  }
868
869
```



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

LINE 1024

### 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

- BUNNYVERSE.sol

### Locations

```
1023     ){
1024     if(tradingActiveBlock > 0 && (tradingActiveBlock + deadBlocks) > block.number){
1025         _isSniper[to]=true;
1026     }
1027
1028
```

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

LINE 1036

### 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

- BUNNYVERSE.sol

### Locations

```
1035   if (to != owner() && to != address(uniswapV2Router) && to !=  
address(uniswapV2Pair)){  
1036   require(_holderLastTransferTimestamp[tx.origin] < block.number, "_transfer::  
Transfer Delay enabled. Only one purchase per block allowed.");  
1037   _holderLastTransferTimestamp[tx.origin] = block.number;  
1038   }  
1039   }  
1040
```

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

LINE 1037

### 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

- BUNNYVERSE.sol

### Locations

```
1036     require(_holderLastTransferTimestamp[tx.origin] < block.number, "_transfer::  
Transfer Delay enabled.  Only one purchase per block allowed.");  
1037     _holderLastTransferTimestamp[tx.origin] = block.number;  
1038 }  
1039 }  
1040  
1041
```

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