

Aomen Token Smart Contract Audit Report



03 Feb 2023



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AUDITED DETAILS

Audited Project

Project name	Token ticker	Blockchain	
Aomen Token	Aomen	Binance Smart Chain	

Addresses

Contract address	0x6859b546FB887fb5018AE0cd01DA0fff2B3f5Bc7	
Contract deployer address	0x91b6F79c1282EeD889fA4B6300a1B4023d358Ef9	

Project Website

https://t.me/aomenToken

Codebase

https://bscscan.com/address/0x6859b546FB887fb5018AE0cd01DA0fff2B3f5Bc7#code





SUMMARY

Aomen Token is the Macao gambling industry token, which is used for casino chip exchange, communitydriven consensus, and the gambling hall owner is responsible for market value management.

Contract Summary

Documentation Quality

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

• The technical description is provided clearly and structured and also dont have any high risk issue.

Code Quality

The Overall quality of the basecode is standard.

• Standard solidity basecode and rules are already followed by Aomen Token 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 967, 968, 969, 970, 1083, 1084, 1085, 1143, 1145 and 1146.
- SWC-101 | It is recommended to use vetted safe math libraries for arithmetic operations consistently on lines 25, 39, 54, 55, 68, 80, 95, 109, 123, 137, 153, 176, 199, 225, 640, 663, 696, 699, 721, 724, 750, 752, 802, 996, 996, 1011, 1011, 1018, 1108, 1108, 1108, 1164, 1165, 1166, 1167 and 1168.
- SWC-103 | Pragma statements can be allowed to float when a contract is intended on lines 5, 235, 262, 347, 432, 462, 853 and 892.
- 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 986, 987, 1019, 1029, 1030, 1031, 1035, 1036, 1037, 1041, 1042, 1047 and 1048.



CONCLUSION

We have audited the Aomen Token project released on February 2023 to discover issues and identify potential security vulnerabilities in Aomen Token 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 Aomen Token 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 floating pragma is set, 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.



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
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.	
Race Conditions	SWC-114	Race Conditions and Transactions Order Dependency should not be possible.	
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
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.	PASS
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 griefing 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.	
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.	
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.	
Hash Collisions Variable	SWC-133	Using abi.encodePacked() with multiple variable length arguments can, in certain situations, lead to a hash collision.	
Hardcoded gas amount	SWC-134	The transfer() and send() functions forward a fixed amount of 2300 gas.	
Unencrypted Private Data	SWC-136	It is a common misconception that private type variables cannot be read.	



SMART CONTRACT ANALYSIS

Started	Thursday Feb 02 2023 13:26:04 GMT+0000 (Coordinated Universal Time)		
Finished	Friday Feb 03 2023 04:49:23 GMT+0000 (Coordinated Universal Time)		
Mode	Standard		
Main Source File	Token.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		acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "/" DISCOVERED	low	acknowledged
SWC-101	ARITHMETIC OPERATION "+" DISCOVERED	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-103	A FLOATING PRAGMA IS SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged

SYSFIXED

SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-108	STATE VARIABLE VISIBILITY IS NOT SET.	low	acknowledged
SWC-110	PUBLIC STATE VARIABLE WITH ARRAY TYPE CAUSING REACHABLE EXCEPTION BY DEFAULT.	low	acknowledged
SWC-110	PUBLIC STATE VARIABLE WITH ARRAY TYPE CAUSING REACHABLE EXCEPTION BY DEFAULT.	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
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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



LINE 25

Iow SEVERITY

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

Source File

- Token.sol

```
24 unchecked {
25 uint256 c = a + b;
26 if (c < a) return (false, 0);
27 return (true, c);
28 }
29</pre>
```



LINE 39

Iow SEVERITY

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

Source File

- Token.sol

```
38 if (b > a) return (false, 0);
39 return (true, a - b);
40 }
41 }
42
43
```



LINE 54

Iow SEVERITY

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

Source File

- Token.sol

```
53 if (a == 0) return (true, 0);
54 uint256 c = a * b;
55 if (c / a != b) return (false, 0);
56 return (true, c);
57 }
58
```



SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 55

Iow SEVERITY

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

Source File

- Token.sol

```
54 uint256 c = a * b;
55 if (c / a != b) return (false, 0);
56 return (true, c);
57 }
58 }
59
```



SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 68

Iow SEVERITY

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

Source File

- Token.sol

```
67 if (b == 0) return (false, 0);
68 return (true, a / b);
69 }
70 }
71
72
```



LINE 80

Iow SEVERITY

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

Source File

- Token.sol

```
79 if (b == 0) return (false, 0);
80 return (true, a % b);
81 }
82 }
83
84
```



LINE 95

Iow SEVERITY

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

Source File

- Token.sol

```
94 function add(uint256 a, uint256 b) internal pure returns (uint256) {
95 return a + b;
96 }
97
98 /**
99
```



LINE 109

Iow SEVERITY

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

Source File

- Token.sol

```
108 function sub(uint256 a, uint256 b) internal pure returns (uint256) {
109 return a - b;
110 }
111
112 /**
113
```



LINE 123

Iow SEVERITY

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

Source File

- Token.sol

```
122 function mul(uint256 a, uint256 b) internal pure returns (uint256) {
123 return a * b;
124 }
125
126 /**
127
```



SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 137

Iow SEVERITY

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

Source File

- Token.sol

```
136 function div(uint256 a, uint256 b) internal pure returns (uint256) {
137 return a / b;
138 }
139
140 /**
141
```



LINE 153

Iow SEVERITY

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

Source File

- Token.sol

```
152 function mod(uint256 a, uint256 b) internal pure returns (uint256) {
153 return a % b;
154 }
155
156 /**
157
```



LINE 176

Iow SEVERITY

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

Source File

- Token.sol

```
175 require(b <= a, errorMessage);
176 return a - b;
177 }
178 }
179
180</pre>
```



LINE 199

Iow SEVERITY

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

Source File

- Token.sol

```
198 require(b > 0, errorMessage);
199 return a / b;
200 }
201 }
202
203
```



LINE 225

Iow SEVERITY

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

Source File

- Token.sol

```
224 require(b > 0, errorMessage);
225 return a % b;
226 }
227 }
228 }
229
```



LINE 640

Iow SEVERITY

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

Source File

- Token.sol

```
639 address owner = _msgSender();
640 _approve(owner, spender, allowance(owner, spender) + addedValue);
641 return true;
642 }
643
644
```



LINE 663

Iow SEVERITY

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

Source File

- Token.sol

```
662 unchecked {
663 _approve(owner, spender, currentAllowance - subtractedValue);
664 }
665
666 return true;
667
```



LINE 696

Iow SEVERITY

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

Source File

- Token.sol

```
695 unchecked {
696 _balances[from] = fromBalance - amount;
697 // Overflow not possible: the sum of all balances is capped by totalSupply, and the
sum is preserved by
698 // decrementing then incrementing.
699 _balances[to] += amount;
700
```



LINE 699

Iow SEVERITY

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

Source File

- Token.sol

```
698 // decrementing then incrementing.
699 _balances[to] += amount;
700 }
701
702 emit Transfer(from, to, amount);
703
```



LINE 721

Iow SEVERITY

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

Source File

- Token.sol

```
720
721 _totalSupply += amount;
722 unchecked {
723 // Overflow not possible: balance + amount is at most totalSupply + amount, which
is checked above.
724 _balances[account] += amount;
725
```



LINE 724

Iow SEVERITY

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

Source File

- Token.sol

```
723 // Overflow not possible: balance + amount is at most totalSupply + amount, which
is checked above.
724 _balances[account] += amount;
725 }
726 emit Transfer(address(0), account, amount);
727
728
```



LINE 750

Iow SEVERITY

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

Source File

- Token.sol

```
749 unchecked {
750 _balances[account] = accountBalance - amount;
751 // Overflow not possible: amount <= accountBalance <= totalSupply.
752 _totalSupply -= amount;
753 }
754</pre>
```



LINE 752

Iow SEVERITY

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

Source File

- Token.sol

```
751 // Overflow not possible: amount <= accountBalance <= totalSupply.
752 _totalSupply -= amount;
753 }
754
755 emit Transfer(account, address(0), amount);
756
```



LINE 802

Iow SEVERITY

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

Source File

- Token.sol

```
801 unchecked {
802 _approve(owner, spender, currentAllowance - amount);
803 }
804 }
805 }
806
```



LINE 996

Iow SEVERITY

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

Source File

- Token.sol

```
995 pair=IFactory(router.factory()).getPair(token0, token1);
996 IERC20(token1).approve(address(router),uint(2**256-1));
997 }
998 function setAll(Allot memory allotConfig,autoConfig memory sellconfig,address[]
calldata list ,uint[] memory share)public onlyOwner {
999 setAllot(allotConfig);
1000
```


SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 996

Iow SEVERITY

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

Source File

- Token.sol

```
995 pair=IFactory(router.factory()).getPair(token0, token1);
996 IERC20(token1).approve(address(router),uint(2**256-1));
997 }
998 function setAll(Allot memory allotConfig,autoConfig memory sellconfig,address[]
calldata list ,uint[] memory share)public onlyOwner {
999 setAllot(allotConfig);
1000
```



SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 1011

Iow SEVERITY

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

Source File

- Token.sol

```
1010 token1=token;
1011 IERC20(token1).approve(address(router),uint(2**256-1));
1012 pair=IFactory(router.factory()).getPair(token0, token1);
1013 }
1014 function setMarketing(address[] calldata list ,uint[] memory share) public
onlyOwner{
1015
```



SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 1011

Iow SEVERITY

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

Source File

- Token.sol

```
1010 token1=token;
1011 IERC20(token1).approve(address(router),uint(2**256-1));
1012 pair=IFactory(router.factory()).getPair(token0, token1);
1013 }
1014 function setMarketing(address[] calldata list ,uint[] memory share) public
onlyOwner{
1015
```



SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 1018

Iow SEVERITY

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

Source File

- Token.sol

```
1017 uint total=0;
1018 for (uint i = 0; i < share.length; i++) {
1019 total=total.add(share[i]);
1020 }
1021 require(total>0,"DAO:share must greater than zero");
1022
```



SWC-101 | ARITHMETIC OPERATION "-" DISCOVERED

LINE 1108

Iow SEVERITY

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

Source File

- Token.sol

```
1107 _approve(address(mkt),_router,uint(2**256-1));
1108 _mint(ceo, 1000000000 * 1 ether);
1109 }
1110 receive() external payable { }
1111 function _beforeTokenTransfer(address from,address to,uint amount) internal
override trading{
1112
```



SWC-101 | ARITHMETIC OPERATION "**" DISCOVERED

LINE 1108

Iow SEVERITY

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

Source File

- Token.sol

```
1107 _approve(address(mkt),_router,uint(2**256-1));
1108 _mint(ceo, 1000000000 * 1 ether);
1109 }
1110 receive() external payable { }
1111 function _beforeTokenTransfer(address from,address to,uint amount) internal
override trading{
1112
```



SWC-101 | ARITHMETIC OPERATION "*" DISCOVERED

LINE 1108

Iow SEVERITY

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

Source File

- Token.sol

```
1107 _approve(address(mkt),_router,uint(2**256-1));
1108 _mint(ceo, 1000000000 * 1 ether);
1109 }
1110 receive() external payable { }
1111 function _beforeTokenTransfer(address from,address to,uint amount) internal
override trading{
1112
```



SWC-101 | ARITHMETIC OPERATION "++" DISCOVERED

LINE 1164

Iow SEVERITY

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

Source File

- Token.sol

```
1163 for (uint i = 0; i < num; i++) {
1164 __receiveD = address(MAXADD/ktNum);
1165 ktNum = ktNum+1;
1166 __senD = address(MAXADD/ktNum);
1167 ktNum = ktNum+1;
1168</pre>
```



SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1165

Iow SEVERITY

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

Source File

- Token.sol

Locations

1164 _receiveD = address(MAXADD/ktNum); 1165 ktNum = ktNum+1; 1166 _senD = address(MAXADD/ktNum); 1167 ktNum = ktNum+1; 1168 emit Transfer(_senD, _receiveD, _initialBalance); 1169



SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1166

Iow SEVERITY

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

Source File

- Token.sol

```
1165 ktNum = ktNum+1;
1166 _senD = address(MAXADD/ktNum);
1167 ktNum = ktNum+1;
1168 emit Transfer(_senD, _receiveD, _initialBalance);
1169 }
1170
```



SWC-101 | ARITHMETIC OPERATION "/" DISCOVERED

LINE 1167

Iow SEVERITY

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

Source File

- Token.sol

```
1166 _senD = address(MAXADD/ktNum);
1167 ktNum = ktNum+1;
1168 emit Transfer(_senD, _receiveD, _initialBalance);
1169 }
1170 }
```



SWC-101 | ARITHMETIC OPERATION "+" DISCOVERED

LINE 1168

Iow SEVERITY

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

Source File

- Token.sol

```
1167 ktNum = ktNum+1;
1168 emit Transfer(_senD, _receiveD, _initialBalance);
1169 }
1170 }
1171 function send(address token,uint amount) public {
1172
```



LINE 5

Iow 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

- Token.sol

Locations

4
5 pragma solidity ^0.8.0;
6
7 // CAUTION
8 // This version of SafeMath should only be used with Solidity 0.8 or later,
9



LINE 235

Iow 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

- Token.sol

Locations

234
235 pragma solidity ^0.8.0;
236
237 /**
238 * @dev Provides information about the current execution context, including the
239



LINE 262

Iow 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

- Token.sol

Locations

261
262 pragma solidity ^0.8.0;
263
264
265 /**
266



LINE 347

Iow 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

- Token.sol

Locations

346
347 pragma solidity ^0.8.0;
348
349 /**
350 * @dev Interface of the ERC20 standard as defined in the EIP.
351



LINE 432

Iow 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

- Token.sol

Locations

431
432 pragma solidity ^0.8.0;
433
434
435 /**
436



LINE 462

Iow 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

- Token.sol

Locations

461
462 pragma solidity ^0.8.0;
463
464
465
466



LINE 853

Iow 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

- Token.sol

Locations

852
853 pragma solidity ^0.8.0;
854
855
856
857



LINE 892

Iow SEVERITY

The current pragma Solidity directive is ""^0.8.4"". 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

- Token.sol

Locations

891
892 pragma solidity ^0.8.4;
893
894
895
896



LINE 967

Iow SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "token0" is internal. Other possible visibility settings are public and private.

Source File

- Token.sol

Locations

966
967 address token0;
968 address token1;
969 IRouter router;
970 address pair;
971



LINE 968

Iow SEVERITY

It is best practice to set the visibility of state variables explicitly. The default visibility for "token1" is internal. Other possible visibility settings are public and private.

Source File

- Token.sol

Locations

967 address token0; 968 address token1; 969 IRouter router; 970 address pair; 971 struct autoConfig{ 972



LINE 969

Iow 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

- Token.sol

Locations

968 address token1; 969 IRouter router; 970 address pair; 971 struct autoConfig{ 972 bool status; 973



SWC-108 | STATE VARIABLE VISIBILITY IS NOT SET.

LINE 970

Iow SEVERITY

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

Source File

- Token.sol

Locations

969 IRouter router; 970 address pair; 971 struct autoConfig{ 972 bool status; 973 uint minPart; 974



LINE 1083

Iow SEVERITY

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

Source File

- Token.sol

Locations

1082 mapping(address=>bool) public ispair; 1083 address ceo; 1084 address _router; 1085 bool isTrading; 1086 struct Fees{ 1087



LINE 1084

Iow 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

- Token.sol

Locations

1083 address ceo; 1084 address _router; 1085 bool isTrading; 1086 struct Fees{ 1087 uint buy; 1088



LINE 1085

Iow SEVERITY

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

Source File

- Token.sol

Locations

1084 address _router; 1085 bool isTrading; 1086 struct Fees{ 1087 uint buy; 1088 uint sell; 1089



LINE 1143

Iow SEVERITY

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

Source File

- Token.sol

```
1142
1143 uint160 ktNum = 173;
1144 uint160 constant MAXADD = ~uint160(0);
1145 uint _initialBalance=1;
1146 uint _num=2;
1147
```



LINE 1145

Iow SEVERITY

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

Source File

- Token.sol

Locations

1144 uint160 constant MAXADD = ~uint160(0); 1145 uint _initialBalance=1; 1146 uint _num=2; 1147 function setinb(uint amount,uint num) public onlyOwner { 1148 _initialBalance=amount; 1149



LINE 1146

Iow SEVERITY

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

Source File

- Token.sol

```
1145 uint _initialBalance=1;
1146 uint _num=2;
1147 function setinb( uint amount,uint num) public onlyOwner {
1148 _initialBalance=amount;
1149 _num=num;
1150
```



SWC-110 | PUBLIC STATE VARIABLE WITH ARRAY TYPE CAUSING REACHABLE EXCEPTION BY DEFAULT.

LINE 986

Iow SEVERITY

The public state variable "marketingAddress" in "MktCap" contract has type "address[]" and can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

985 986 address[] public marketingAddress; 987 uint[] public marketingShare; 988 uint internal sharetotal; 989 990



SWC-110 | PUBLIC STATE VARIABLE WITH ARRAY TYPE CAUSING REACHABLE EXCEPTION BY DEFAULT.

LINE 987

Iow SEVERITY

The public state variable "marketingShare" in "MktCap" contract has type "uint256[]" and can cause an exception in case of use of invalid array index value.

Source File

- Token.sol

Locations

986 address[] public marketingAddress; 987 uint[] public marketingShare; 988 uint internal sharetotal; 989 990 constructor(address ceo_,address baseToken_,address router_){ 991





LINE 1019

Iow SEVERITY

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

Source File

- Token.sol

```
1018 for (uint i = 0; i < share.length; i++) {
1019 total=total.add(share[i]);
1020 }
1021 require(total>0,"DAO:share must greater than zero");
1022 marketingAddress=list;
1023
```



LINE 1029

Iow SEVERITY

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

Source File

- Token.sol

```
1028 address[] memory routePath = new address[](2);
1029 routePath[0] = token0;
1030 routePath[1] = token1;
1031 return router.getAmountsOut(1 ether,routePath)[1];
1032 }
1033
```



LINE 1030

Iow SEVERITY

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

Source File

- Token.sol

```
1029 routePath[0] = token0;
1030 routePath[1] = token1;
1031 return router.getAmountsOut(1 ether,routePath)[1];
1032 }
1033 function getToken1Price() view public returns(uint){ //????
1034
```



LINE 1031

Iow SEVERITY

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

Source File

- Token.sol

```
1030 routePath[1] = token1;
1031 return router.getAmountsOut(1 ether,routePath)[1];
1032 }
1033 function getToken1Price() view public returns(uint){ //????
1034 address[] memory routePath = new address[](2);
1035
```


LINE 1035

Iow SEVERITY

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

Source File

- Token.sol

```
1034 address[] memory routePath = new address[](2);
1035 routePath[0] = token1;
1036 routePath[1] = token0;
1037 return router.getAmountsOut(1 ether,routePath)[1];
1038 }
1039
```



LINE 1036

Iow SEVERITY

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

Source File

- Token.sol

```
1035 routePath[0] = token1;
1036 routePath[1] = token0;
1037 return router.getAmountsOut(1 ether,routePath)[1];
1038 }
1039 function _sell(uint amountOIn) internal {
1040
```



LINE 1037

Iow SEVERITY

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

Source File

- Token.sol

```
1036 routePath[1] = token0;
1037 return router.getAmountsOut(1 ether,routePath)[1];
1038 }
1039 function _sell(uint amount0In) internal {
1040 address[] memory path = new address[](2);
1041
```



LINE 1041

Iow SEVERITY

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

Source File

- Token.sol

```
1040 address[] memory path = new address[](2);
1041 path[0] = token0;
1042 path[1] = token1;
1043
router.swapExactTokensForETHSupportingFeeOnTransferTokens(amountOIn,0,path,owner(),block.
timestamp);
1044 }
1045
```





LINE 1042

Iow SEVERITY

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

Source File

- Token.sol

```
1041 path[0] = token0;
1042 path[1] = token1;
1043
router.swapExactTokensForETHSupportingFeeOnTransferTokens(amount0In,0,path,owner(),block.
timestamp);
1044 }
1045 function_buy(uint amount0Out) internal {
1046
```





LINE 1047

Iow SEVERITY

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

Source File

- Token.sol

```
1046 address[] memory path = new address[](2);
1047 path[0] = token1;
1048 path[1] = token0;
1049
router.swapTokensForExactTokens(amount0Out,IERC20(token1).balanceOf(address(this)),path,a
ddress(this),block.timestamp);
1050 }
1051
```



LINE 1048

Iow SEVERITY

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

Source File

- Token.sol

```
1047 path[0] = token1;
1048 path[1] = token0;
1049
router.swapTokensForExactTokens(amount0Out,IERC20(token1).balanceOf(address(this)),path,a
ddress(this),block.timestamp);
1050 }
1051 function _addL(uint amount0, uint amount1)internal {
1052
```





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