

## Presence of unused variables

### Description

Unused variables are allowed in Solidity, and they do not pose a direct security issue. It is best practice though to avoid them as they can:

- cause an increase in computations (and unnecessary gas consumption)
- indicate bugs or malformed data structures and they are generally a sign of poor code quality
- cause code noise and decrease readability of the code

### Remediation

Remove all unused variables from the code base.

### Example:

*Code:*

```
1 pragma solidity >=0.5.0;
2 pragma experimental ABIEncoderV2;
3
4 import "./base.sol";
5
6 contract DerivedA is Base {
7     // i is not used in the current contract
8     A i = A(1);
9
10    int internal j = 500;
11
12    function call(int a) public {
13        assign1(a);
14    }
15
16    function assign3(A memory x) public returns (uint) {
17        return g[1] + x.a + uint(j);
18    }
19
20    function ret() public returns (int){
21        return this.e();
22    }
23 }
24
25 }
```

*Explanation:*

This contract makes no use of the A contract variable i. To reduce gas use, remove the declaration from the contract.