

```

1  // SPDX-License-Identifier: MIT
2  // OpenZeppelin Contracts v4.4.1 (utils/Counters.sol)
3
4  pragma solidity ^0.8.0;
5
6  /**
7   * @title Counters
8   * @author Matt Condon (@shrugs)
9   * @dev Provides counters that can only be incremented, decremented or reset. This
10  can be used e.g. to track the number
11  * of elements in a mapping, issuing ERC721 ids, or counting request ids.
12  * Include with `using Counters for Counters.Counter;`
13  */
14  library Counters {
15      struct Counter {
16          // This variable should never be directly accessed by users of the library:
17          // interactions must be restricted to
18          // the library's function. As of Solidity v0.5.2, this cannot be enforced,
19          // though there is a proposal to add
20          // this feature: see https://github.com/ethereum/solidity/issues/4637
21          uint256 _value; // default: 0
22      }
23
24      function current(Counter storage counter) internal view returns (uint256) {
25          return counter._value;
26      }
27
28      function increment(Counter storage counter) internal {
29          unchecked {
30              counter._value += 1;
31          }
32      }
33
34      function decrement(Counter storage counter) internal {
35          uint256 value = counter._value;
36          require(value > 0, "Counter: decrement overflow");
37          unchecked {
38              counter._value = value - 1;
39          }
40      }
41
42      function reset(Counter storage counter) internal {
43          counter._value = 0;
44      }
45  }

```