

```

1 |----- MODULE SimpleVoting -----|
2 | EXTENDS Naturals                    |
3 |-----|
4 | CONSTANT Participant              |
5 |                                     |
6 | VARIABLE maxBal                    |
7 |                                     |
8 | TypeOK  $\triangleq$  maxBal  $\in$  [Participant  $\rightarrow$  Nat] |
9 |-----|
10 | Init  $\triangleq$  maxBal = [p  $\in$  Participant  $\mapsto$  0] |
11 |                                     |
12 | IncreaseMaxBal(p, b)  $\triangleq$          |
13 |    $\wedge$  maxBal[p] < b                |
14 |    $\wedge$  maxBal' = [maxBal EXCEPT ![p] = b] |
15 |-----|
16 | Next  $\triangleq$   $\exists$  p  $\in$  Participant, b  $\in$  Nat : IncreaseMaxBal(p, b) |
17 |                                     |
18 | Spec  $\triangleq$  Init  $\wedge$   $\Box$ [Next]maxBal |
19 |-----|
   \ * Modification History
   \ * Last modified Thu Aug 15 12:07:49 CST 2019 by hengxin
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