─────────────────── MODULE *SimpleProgram* ───────────────────

EXTENDS *Integers*
VARIABLES i, pc

$Init \triangleq (pc = \text{“start”}) \land (i = 0)$

$Pick \triangleq \lor \land pc = \text{“start”}$
$\qquad\qquad\quad \land i' \in 0 \,.\,.\, 1000$
$\qquad\qquad\quad \land pc' = \text{“middle”}$

$Add1 \triangleq \lor \land pc = \text{“middle”}$
$\qquad\qquad\quad \land i' = i + 1$
$\qquad\qquad\quad \land pc' = \text{“done”}$

$Next \triangleq Pick \lor Add1$

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\ * first program in tla

1