```
1  ---------- MODULE Op ----------
   Model checking basic operations on strings (i.e., list of characters).
6  EXTENDS Naturals, Sequences
7  ----------
8  CONSTANTS   Char
9  ----------
10 List ≜ Seq(Char)     The set of all lists.
   The set of all operations. In this specification, we will focus on "Ins" and "Del".
15 Op ≜ [type : {"Rd"}] ∪  a read specifies no arguments
16       [type : {"Del"}, pos : Nat \ {0}] ∪  a deletion specifies a position (from 1)
17       [type : {"Ins", "Set"}, pos : Nat \ {0}, ch : Char]  an insertion or a set specifies a position (from 1) and a charac
18 Nop ≜ CHOOSE v : v ∉ Op   Nop: an operation representing "doing nothing"
19 ----------
   The "Apply" operator which applies an operation op on the list l.
23 Apply(op, l) ≜
24    LET len ≜ Len(l)
25        pos ≜ op.pos
26    IN  CASE op.type = "Del" → SubSeq(l, 1, pos − 1) ∘ SubSeq(l, pos + 1, len)
27          □   op.type = "Ins" → Append(SubSeq(l, 1, pos − 1), op.ch) ∘ SubSeq(l, pos + 1, len)
28 ----------
   \* Modification History
   \* Last modified Sat Jun 23 21:09:16 CST 2018 by hengxin
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