```
procedure SLRActionTable( {I_i} the item sets of G )
Where I_i is an item set (aka LR parser state) of the grammar G.
Typically I_0 is the item set generated by the fresh start of the
grammar goal symbol S which has one production rule
terminated with $.

  Recall that A,B ∈ N, the set of G's non-terminals, a ∈ Σ and
  α,β ∈ (N ⋃ Σ_$)* are sequences of grammar symbols.

  let T[·][·] be the SLR action table with row i representing parser
    state i and columns for X ∈ N ⋃ Σ_$ the grammar symbols of
    G augmented by $.

  foreach ( I_i item set in {I_i} ) do (
    foreach ( X ∈ N ⋃ Σ_$ ) do (
      if ( A → α • X π ∈ I_i ) then (
        set T[i][X] operation to SHIFT AND GO TO GoTo(I_i, X)
      )
    )
    foreach ( P = A → α • | A → • λ ∈ I_i ) do (
      foreach ( f ∈ followSet(A) ) do (
        if ( T[i][f] is already specified ) FAIL WITH CONFLICT
        set T[i][f] operation to REDUCE WITH P
      )
    )
    if ( S → π$ • ∈ I_i ) then (
      set T[i][·] operation to REDUCE WITH S → π$ AND ACCEPT
    )
  )
```