Algorithm 1 Greedy algorithm

1: **procedure** SEARCH(*statement_list*)
2:     Extract Candidate statements from statement list
3:
4:     **for** Candidate statements **do**   ▷ Become Producer statement
5:         **for** Candidate statement's Consumer statements **do**
6:             **if** Pass Rules **then**
7:                 Merge
8:                 Update statement list
9:                 Break loop
10:
11:         **if** Merge is performed **then**
12:             Break loop
13:
14:     **if** No Merge **then return** statement list
15:     **else**
16:         Recursively call Search