Pseudocode for tabu search heuristic

Inputs: A shortest path distance matrix **D** with NROW rows and NCOL columns. S_1 a set of P columns IN in the solution and a set of NCOL-P columns OUT not in the solution.

```
cbest = c(S_1)
do i = 1, max_it
    Δcbest = ∞
    do j = 1, P
        do k = 1, NCOL − P
            swap jth entry of IN with kth entry of OUT yielding S̄_i
            compute Δc = c(S̄_i) − c(S_i)
            if (Δc < Δcbest ) then
                check tabu status of swap
                if ( swap tabu ) then
                    check aspiration criteria
                    if ( c(S̄_i) < cbest ) then
                        make swap best so far
                        S_i = S̄_i
                        Δcbest = Δc
                    else
                        swap not allowed
                    endif
                else
                    make swap best so far
                    S_i = S̄_i
                    Δcbest = Δc
                endif
            endif
        end do
    end do
    update tabu list with best swap
    if (c(S_i) < cbest) then
        cbest = c(S_i)
    endif
end do
```