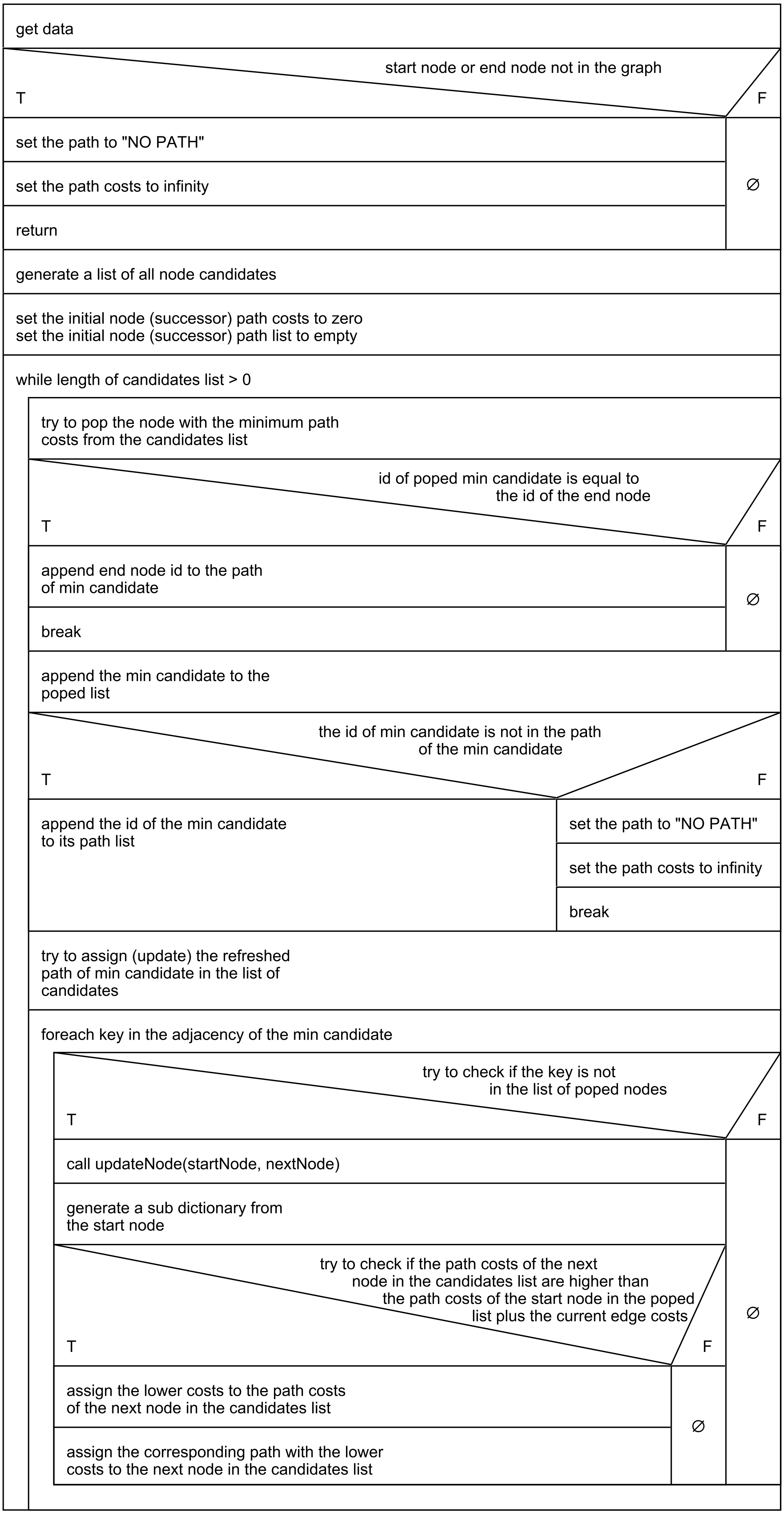
Find shortest path algorithm



```
get data
start node or end node not in the graph
T
    set the path to "NO PATH"
    set the path costs to infinity
    return
F
    ∅
generate a list of all node candidates
set the initial node (successor) path costs to zero
set the initial node (successor) path list to empty
while length of candidates list > 0
    try to pop the node with the minimum path
    costs from the candidates list
    id of poped min candidate is equal to
    the id of the end node
    T
        append end node id to the path
        of min candidate
        break
    F
        ∅
    append the min candidate to the
    poped list
    the id of min candidate is not in the path
    of the min candidate
    T
        append the id of the min candidate
        to its path list
    F
        set the path to "NO PATH"
        set the path costs to infinity
        break
    try to assign (update) the refreshed
    path of min candidate in the list of
    candidates
    foreach key in the adjacency of the min candidate
        try to check if the key is not
        in the list of poped nodes
        T
            call updateNode(startNode, nextNode)
            generate a sub dictionary from
            the start node
            try to check if the path costs of the next
            node in the candidates list are higher than
            the path costs of the start node in the poped
            list plus the current edge costs
            T
                assign the lower costs to the path costs
                of the next node in the candidates list
                assign the corresponding path with the lower
                costs to the next node in the candidates list
            F
                ∅
        F
            ∅
```