Dijkstra's Algorithm (C++)

step 0: prepare and initialize everything
- load the cost matrix
- get the source node
- set marked array to zero
- set parent array to source
- set the bestCost array to cost matrix of for the source row

step 1: minNode <-- source node

Step 2: Mark the minNode

Step 3: // expand minNode and computer the new cost
newNode <-- get the next un-marked node,
tempCost <-- bestCost[minNode] + costMatrix[minNode, newNode]
if tempCost < bestCost[newNode]
bestCost[newNode] <-- tempCost
parent[newNode] <-- minNode

Step 3: repeat step 2 until all un-marked nodes are processed.

step 4: minNode <-- find the unmarked node with the smallest bestCost

Step 5: repeat step 2 to step 4 until all nodes are marked.

step 6: print the cost matrix
print the source node
print all paths from source to each of the nodes in graph with cost
in the format given above // you may trace the path by the parent array.