Shortest path

Help Rahul to reach hospital with lowest possible cost as possible

Rahul started from his home for the hospital. but he also has to pass from different medicine stores to buy the prescribed medicines. He needs to reach hospital as quickly as possible. He knows where the medicine stores are and he needs your help to figure out the shortest possible path to pass through all the stores and reach hospital in lowest possible time. Assume that the city is a co-ordinate plane with every stopping station of Rahul having a co-ordinate as (x,y), where 0 <=x<=8 and 0 <=y<=11. his home is at (0,0) and hospital is at (8,11). guide him from the shortest path.

RULE:
You are given a set of points e.g. {(x1,y1),(x2,y2),(x3,y3),....} which are the co-ordinates of the medicine stores. You can move anyway, anywhere, any number of time. You have to complete the journey in certain number of steps and for each step you take, you have to pay -1 penalty for that. While taking any step keep in mind that if you are currently at (x,y), your next step should be one of the following = {(x+1,y),(x-1,y),(x,y+1),(x,y-1),(x-1,y+1),(x+1,y-1),(x+1,y+1),(x-1,y-1)}. You will start from (0,0) and have to pass through all the given points(medicine stores) and finally reach (8,11) in lowest steps possible. Your final answer should be the collection of all the points(serialwise) from where you have passed(be it medicine stores or intermediate points)

Current position
Possible paths

Path1+path2>path3
Path3 is less expensive
Path3
Path2
Path1

Target points

Shortest path

(0,11) (8,11)

(0,0) (8,11)

start end

(0,11) (8,11)

(0,0) (8,11)

start end

(0,11) (8,11)

(0,0) (8,11)

start end