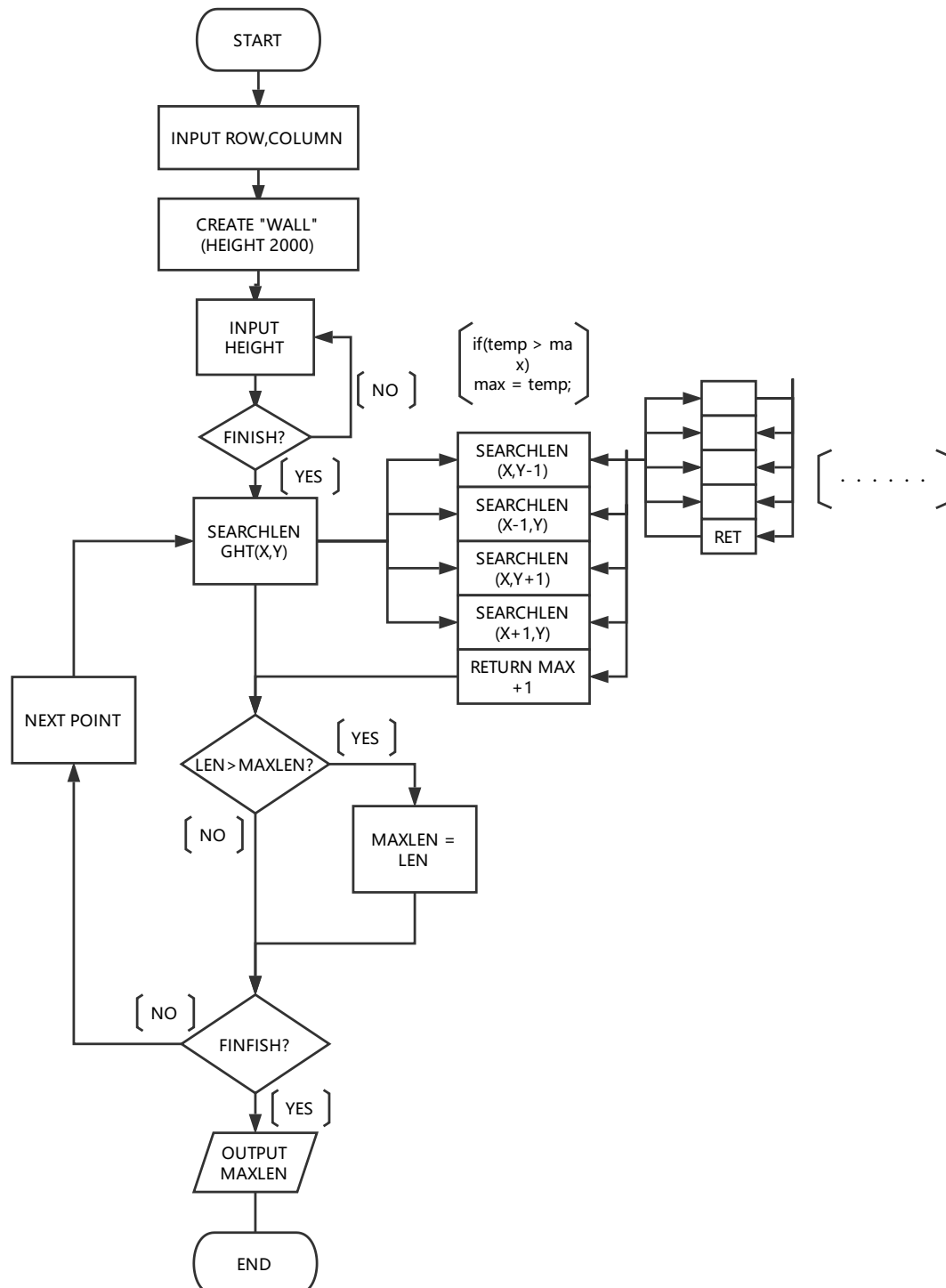


The 6th lab report

(Due on Jul.19th)

1 .Program algorithm:



2. Brief Explanations

This program is to find the shortest routine.

1) **FUNCTION 1:** void Initialmap(int row, int column)

In this function, we firstly create a “wall” (height 2000) So we don't have to judge if it is out of bounds.

Then we input the height of every point into the array(map).

2) **FUNCTION 2:** int searchlength(int i, int j)

In this function, we recursively search for the longest path. The order of directions is: East, South, North, West. If one direction is valid, the recursive function of the next point in this direction is called.

If the four directions fail, the innermost recursive function will return 1, meaning that the feasible path starting from this point contains only itself. The return value of each recursive function after that is the return value of the inner recursive function plus the result of itself (1). Until recursion ends

3) **MAIN**

Finds the maximum in the return value of the recursive function corresponding to all the points.

3. Source Code (in appendix)