Programming task #4 Path finding

Develop a program that get's an ascii file as a parameter, which contains 2 coordinates (x, y) and a map. The map contains trees (marked as X), rocks (marked as O [big o, not zero]) and free surface (marked with . [dot]).
One cannot travers through rocks or trees, only through free terrain. Also you can only traverse horizontally or vertically, not diagonally.

The picture below is an example of contents of such file. Real files does not contain S or E letters. They are here only for the reader.

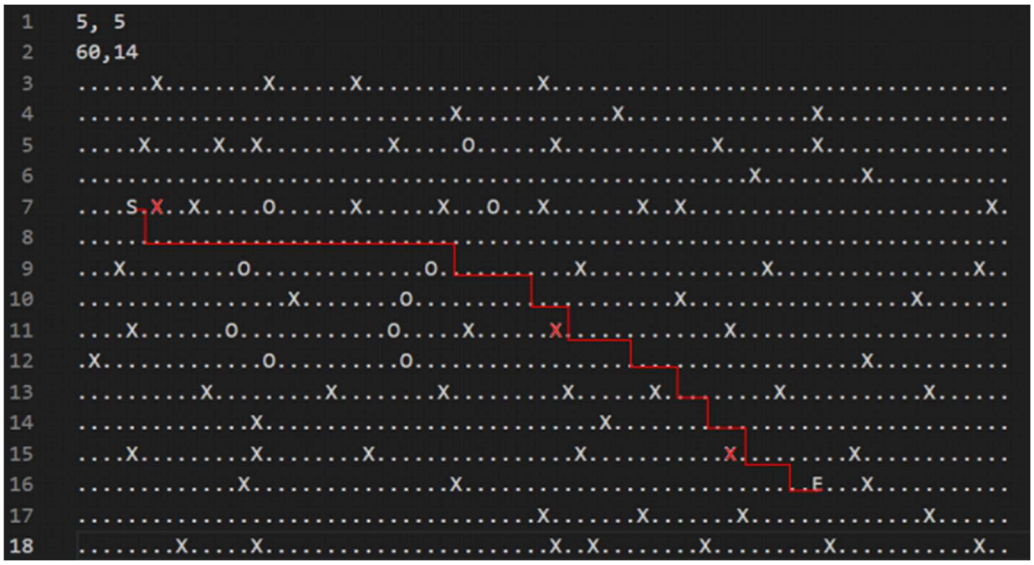
```
1  5, 5
2  60,14
3  ......X........X......X..............X.....................................
4  ..............................X............X..............X...............
5  .....X.....X..X..........X.....O......X............X.......X..............
6  ..................................................X........X...........
7  ....S.X..X.....O......X......X...O...X.......X..X.........................X.
8  ..............................................................................
9  ...X.........O..............O...........X..............X..................X..
10 ..................X........O.....................X..................X.......
11 ....X.......O............O.....X......X.............X.....................
12 .X.............O..........O.....................................X...........
13 ..........X.........X........X.........X......X.........X...........X......
14 ..............X............................X..................................
15 ....X.........X........X................X...........X.........X............
16 ..............X.................X..............................E...X...........
17 ....................................X.......X.......X..............X......
18 ........X.....X.......................X..X........X.........X...........X..
```

TREES ARE MARKED WITH X, ROCKS WITH O AND FREE TERRAIN WITH DOTS. PICTURE ALSO CONTAINS S AND E TO MARK THE START AND END

the purpose of the program is to find the shortest path through the map from start to end, and calculate how many trees were passed on the way.

You can solve the problem using any method (Djikstra, A*, brute force). Solution does not need to be calculationally perfect. Plagiarism is allowed😊.

For example in the previous map, the solution could be something like the red path drawn below. Thus the correct answer would be 3, as the path directly passes by 3 tree (marked as red X's in the picture).



It is safe to assume that there will always be a path. On the other hand the map size might change, but will always be quadrilateral.

Send your solution to address matti.k.lindroth@aktia.fi along with your name and contact information by 1.2.2021. Preferably a link to a github- repository, but also attached .zip file is ok.