Project digital technologies

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Steps of the algorithm - Pseudocode.

Visualize the algorithm.

1. Start algorithm
2. Write “Write the Labyrinth you want the program to solve.
3. Input the matrix of the variable, interpreting x as walls, “ “ as open spaces you can traverse, E as start and S as End.
4. Declare the variable (row) to represent the rows of the algorithm.
5. Declare variable (column) to stablish columns.
6. Count rows.
7. Count columns.
8. Set starting point on E
9. Set finish point on S
10. Set variable that counts how many spaces the computer walks to get to exit.
11. Set a checkpoint on E, so you can always return to it when you hit a dead end
12. Check if you can move right from the place, you currently are, if it so moves one place to the right.
13. Check if you can move up if so move one place to that direction from current position.
14. Check if you can move left, if so move one space to the left.
15. Check if you can move down, if so move one space down.

16. Repeat until you reach S or until you can´t move in three out of the 4 directions, if this second option happens return to E.
17. And change the order of the sequence from right, up, left, down to another until you find S.
18. If you can find S with multiple paths return to E and count the number of steps, you must take on each path.
19. Select the path with the least amount of steps.
20. Show to the user the way to complete the labyrinth with the least number of paths.
21. Write “This is the path with the least amount of spaces to travel in order to be completed.”
22. End algorithm