

For this project I made a unit test structure. I have a folder called unittests which contains all the files necessary for testing. Instead of having many different files of mazes, I hardcoded different mazes into tests.lisp. If you run tests.lisp you will see all of the results of what the program can do, but you don't see the output for a particular maze. Running this test file is self-contained.

Solve-maze has two modes. One is to give it a filename and it will process and solve the maze contained within. There is one txt file in unittests which contains a text file of a maze and starting condition, and I have a test which verifies that it can read this file.

Limitation: My program's input files can only contain one starting position. My solve-maze function can actually process each starting location and they get stored in the variable input. However, I did not have time to be able to enclose the rest of my code into a block to loop for each of these inputs, so it only currently runs on the first starting point given.

Note that the file for the assignment, "test-prog.lisp" runs my tests (which load my program) and then it does a manual by file run of my program, showing that both things work.

The second mode gives solve-maze a list and the starting positions, and it runs from that. I used this to help with my unittesting.

Limitation: My output is not formatted nicely, but it should be clear what each piece of it means. It gives the path, the message, the maze (with the path marked in X's) and the number of moves.

I have a wide variety of mazes. Please read the output to see the types of mazes and conditions that were tested. Please refer in the actual "tests.lisp" file to see what the specific mazes look like.