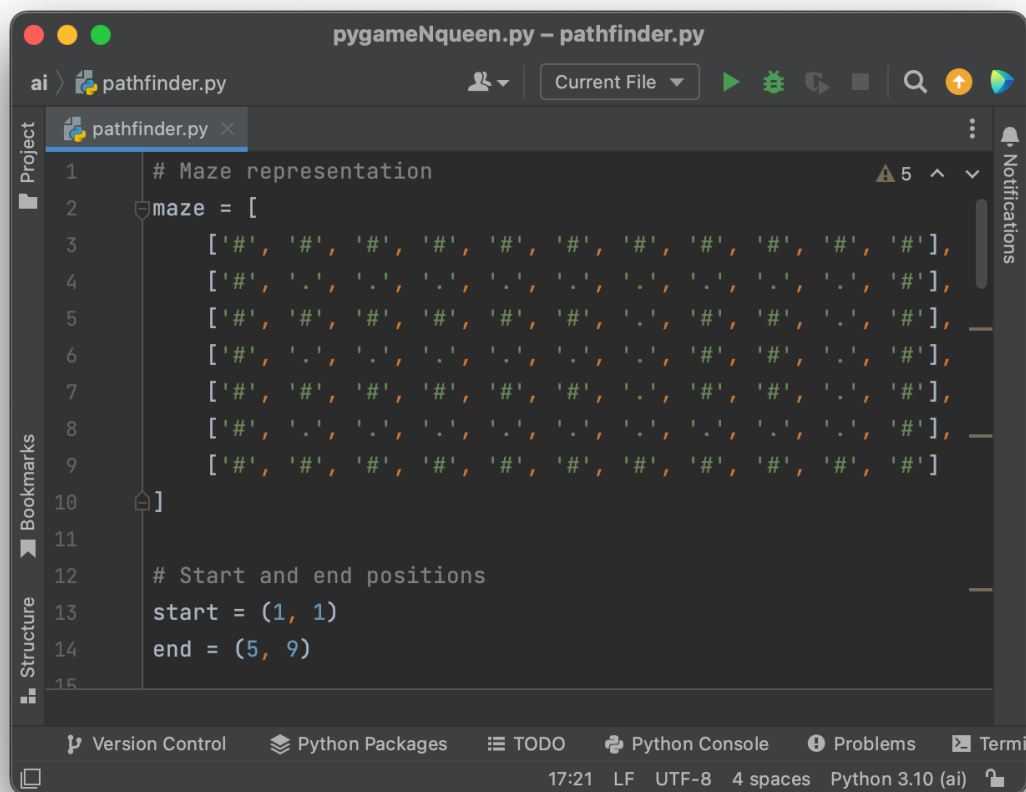


This is a simple program to traverse from a provided coordinate in the maze to the destination coordinate in the same maze.

This uses DFS (Depth First Search) to find a path.

The neighbouring positions of the current position are obtained using the `get_neighbors` function.

Maze representation and Start & Destination coordinates -



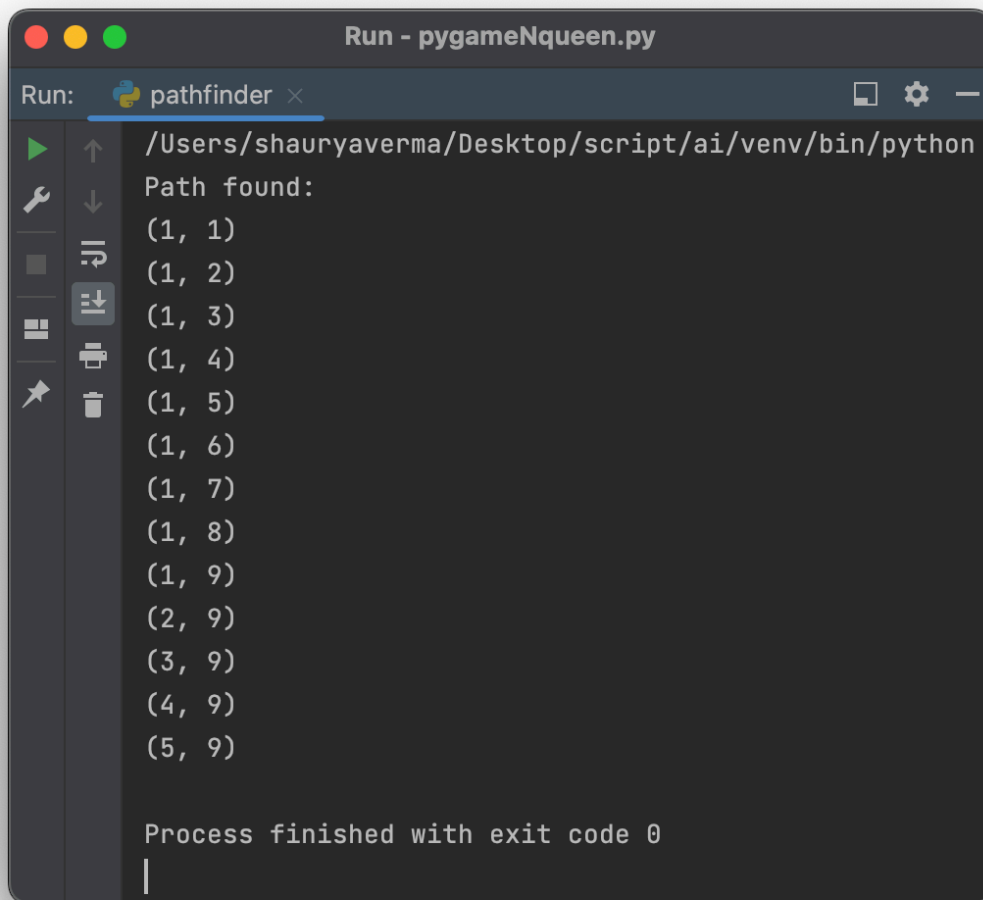
```
1 # Maze representation
2 maze = [
3     ['#', '#', '#', '#', '#', '#', '#', '#', '#', '#', '#'],
4     ['#', '#', '#', '#', '#', '#', '#', '#', '#', '#', '#'],
5     ['#', '#', '#', '#', '#', '#', '#', '#', '#', '#', '#'],
6     ['#', '#', '#', '#', '#', '#', '#', '#', '#', '#', '#'],
7     ['#', '#', '#', '#', '#', '#', '#', '#', '#', '#', '#'],
8     ['#', '#', '#', '#', '#', '#', '#', '#', '#', '#', '#'],
9     ['#', '#', '#', '#', '#', '#', '#', '#', '#', '#', '#']
10 ]
11
12 # Start and end positions
13 start = (1, 1)
14 end = (5, 9)
15
```

In the maze, the top left coordinate is represented as (0,0) and the bottom right coordinate is represented as (6,10)

Here (5,9) lies inside the maze walls, bottom right corner available space.

// checkout the pygame repository for a gui representation of the same

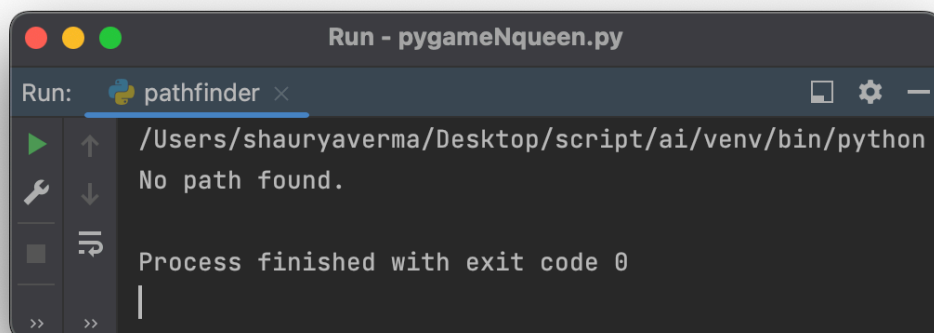
OUTPUT -



```
Run - pygameNqueen.py
Run: pathfinder x
/Users/shauryaverma/Desktop/script/ai/venv/bin/python
Path found:
(1, 1)
(1, 2)
(1, 3)
(1, 4)
(1, 5)
(1, 6)
(1, 7)
(1, 8)
(1, 9)
(2, 9)
(3, 9)
(4, 9)
(5, 9)

Process finished with exit code 0
```

Keeping the start point the same as before but changing the destination to a unreachable coordinate for example (6,9) since this point lies outside the available maze space and inside the maze wall, the output should display no solution.



```
Run - pygameNqueen.py
Run: pathfinder x
/Users/shauryaverma/Desktop/script/ai/venv/bin/python
No path found.

Process finished with exit code 0
```

Happy Coding!