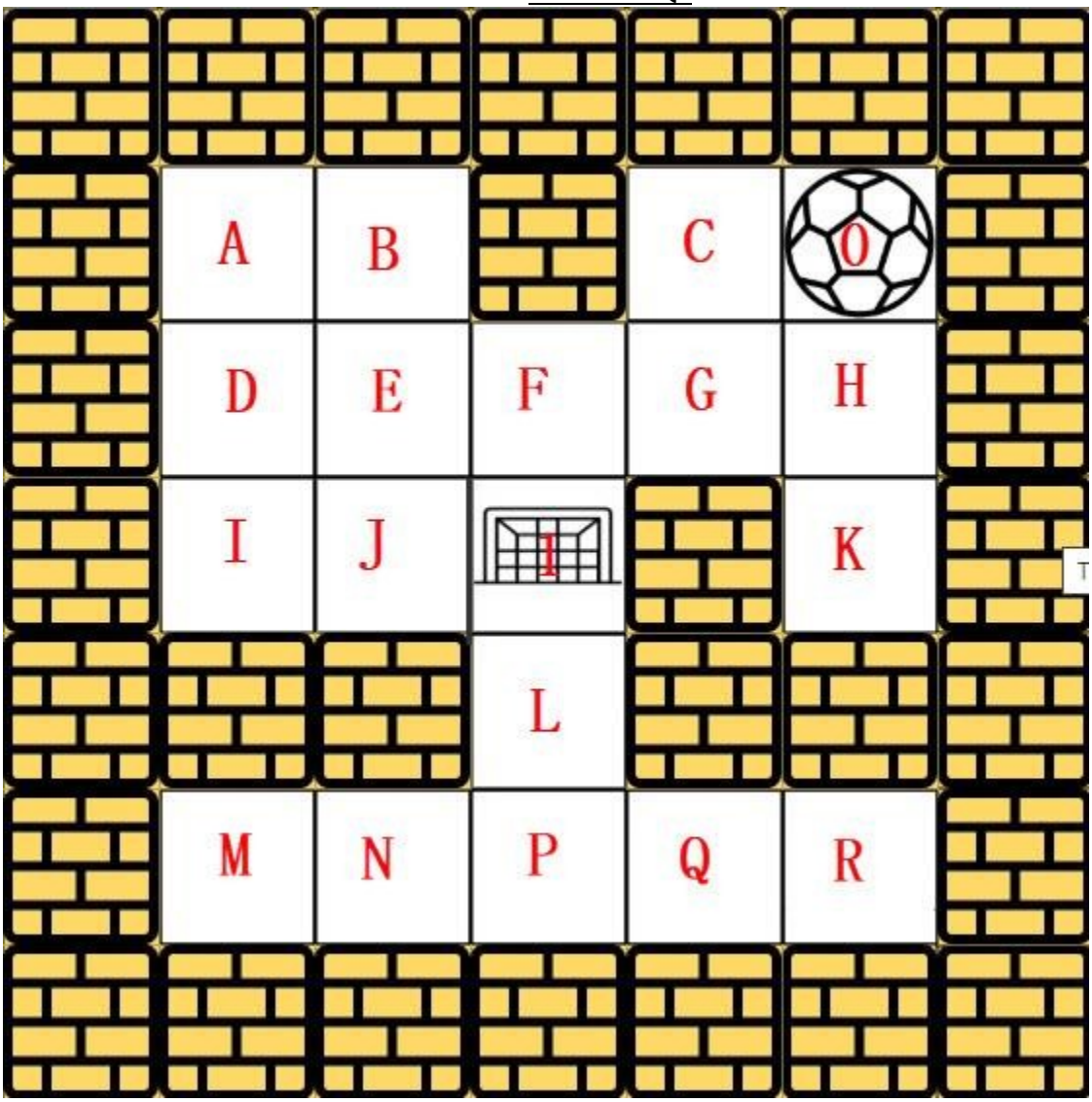
WEEK-11-Q3



Right=>left=>top=>bottom

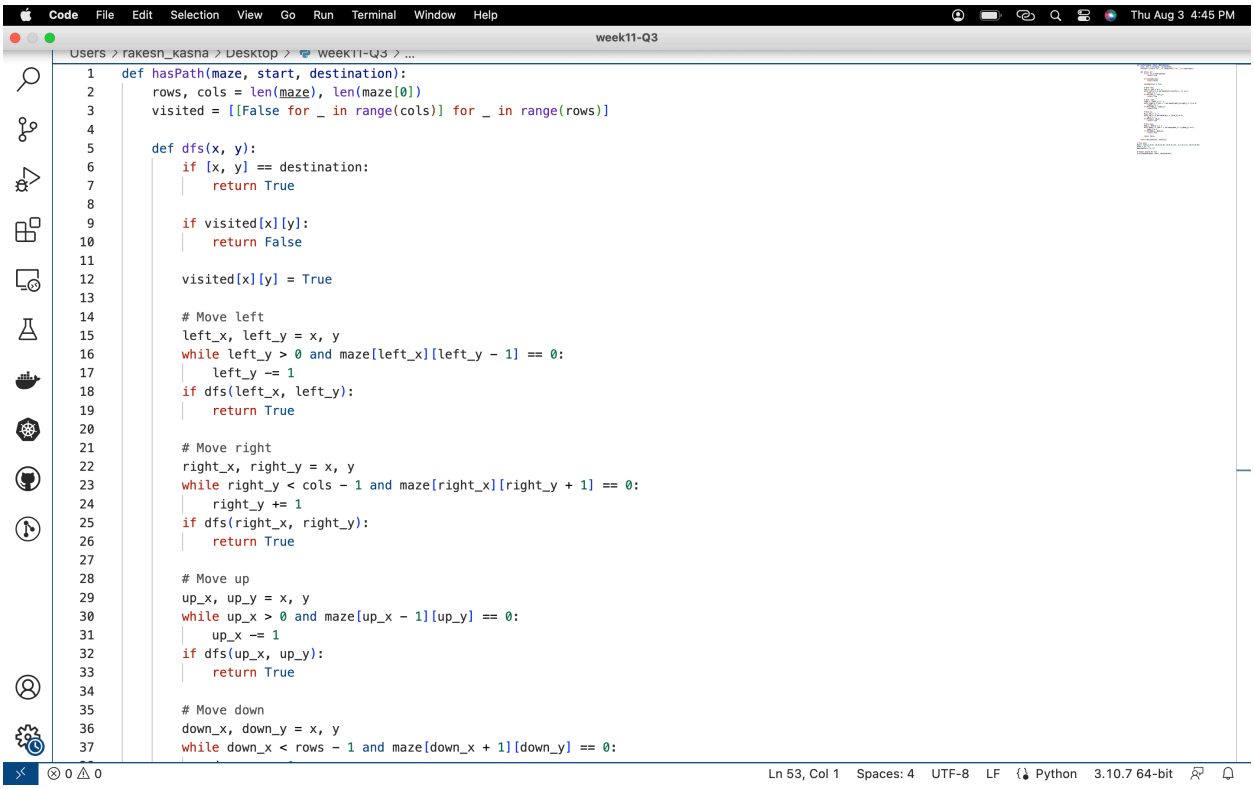
DFT

				K				1
			H	H	H		F	F
		G	G	G	G	G	G	G
	C	C	C	C	C	C	C	C
0	0	0	0	0	0	0	0	0

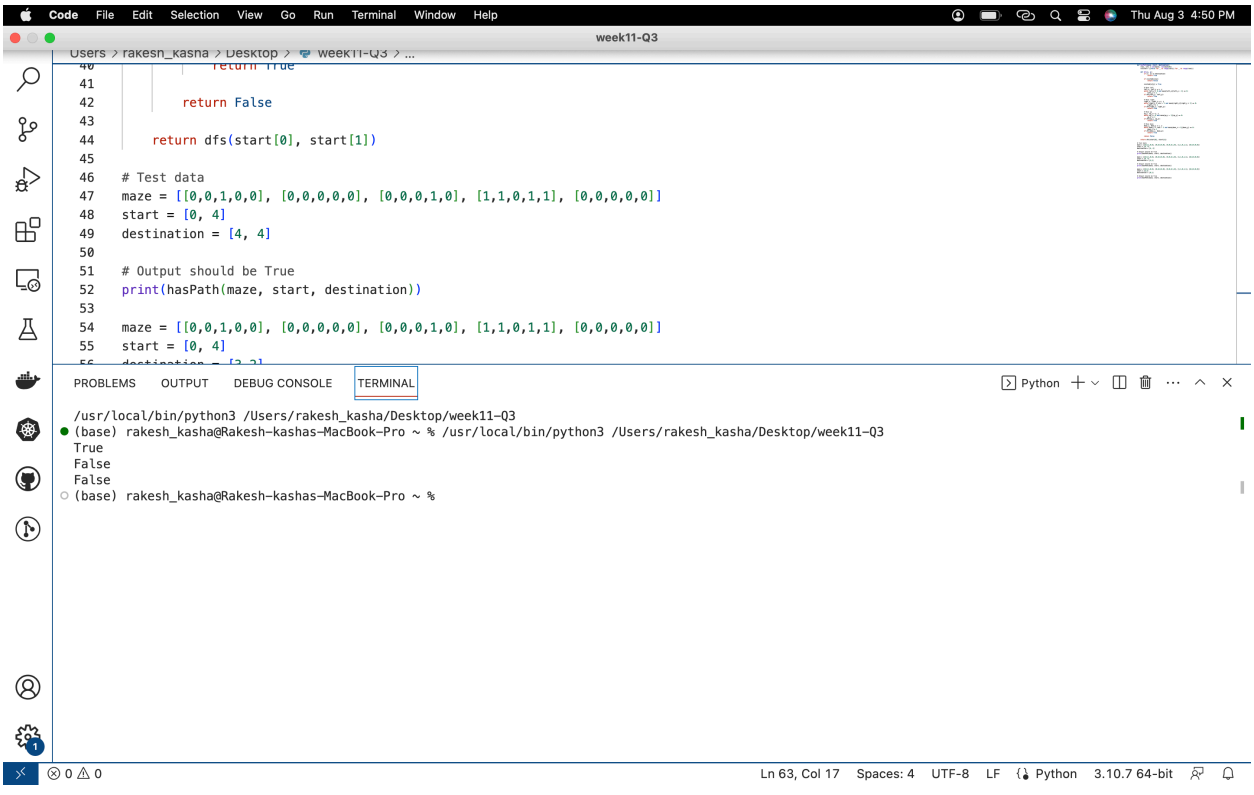
Code(chatGPT)

```python
def hasPath(maze, start, destination):
    rows, cols = len(maze), len(maze[0])
    visited = [[False for _ in range(cols)] for _ in range(rows)]

    def dfs(x, y):
        if [x, y] == destination:
            return True

        if visited[x][y]:
            return False

        visited[x][y] = True

        # Move left
        left_x, left_y = x, y
        while left_y > 0 and maze[left_x][left_y - 1] == 0:
            left_y -= 1
        if dfs(left_x, left_y):
            return True

        # Move right
        right_x, right_y = x, y
        while right_y < cols - 1 and maze[right_x][right_y + 1] == 0:
            right_y += 1
        if dfs(right_x, right_y):
            return True

        # Move up
        up_x, up_y = x, y
        while up_x > 0 and maze[up_x - 1][up_y] == 0:
            up_x -= 1
        if dfs(up_x, up_y):
            return True

        # Move down
        down_x, down_y = x, y
        while down_x < rows - 1 and maze[down_x + 1][down_y] == 0:
            down_x += 1
        if dfs(down_x, down_y):
            return True

        return False

    return dfs(start[0], start[1])
```

```
# Test data
maze = [[0,0,1,0,0], [0,0,0,0,0], [0,0,0,1,0], [1,1,0,1,1], [0,0,0,0,0]]
start = [0, 4]
destination = [4, 4]

# Output should be True
print(hasPath(maze, start, destination))
```



TEST CASES:


Code File Edit Selection View Go Run Terminal Window Help
Thu Aug 3 4:50 PM
week11-Q3
Users > rakesh_kasha > Desktop > week11-Q3 > ...
return True
return False
return dfs(start[0], start[1])
# Test data
maze = [[0,0,1,0,0], [0,0,0,0,0], [0,0,0,1,0], [1,1,0,1,1], [0,0,0,0,0]]
start = [0, 4]
destination = [4, 4]
# Output should be True
print(hasPath(maze, start, destination))
maze = [[0,0,1,0,0], [0,0,0,0,0], [0,0,0,1,0], [1,1,0,1,1], [0,0,0,0,0]]
start = [0, 4]
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Python
/usr/local/bin/python3 /Users/rakesh_kasha/Desktop/week11-Q3
(base) rakesh_kasha@Rakesh-kashas-MacBook-Pro ~ % /usr/local/bin/python3 /Users/rakesh_kasha/Desktop/week11-Q3
True
False
False
(base) rakesh_kasha@Rakesh-kashas-MacBook-Pro ~ %
0 0
Ln 63, Col 17 Spaces: 4 UTF-8 LF Python 3.10.7 64-bit