```
def display_Path_to_Princess(N, grid):
    # Locate bot ('m') and princess ('p')
    for i in range(N):
        for j in range(N):
            if grid[i][j] == 'm':
                bot_x, bot_y = i, j
            elif grid[i][j] == 'p':
                princess_x, princess_y = i, j

    # Calculate and print vertical moves
    if bot_x > princess_x:
        for _ in range(bot_x - princess_x):
            print("UP")
    elif bot_x < princess_x:
        for _ in range(princess_x - bot_x):
            print("DOWN")

    # Calculate and print horizontal moves
    if bot_y > princess_y:
        for _ in range(bot_y - princess_y):
            print("LEFT")
    elif bot_y < princess_y:
        for _ in range(princess_y - bot_y):
            print("RIGHT")

# --------------------------
# Main Input Code to Test It
# --------------------------
```

```
if __name__ == "__main__":
    N = int(input("Enter grid size (odd number from 3 to 99): "))
    print("Enter grid rows (each row with {} characters):".format(N))
    grid = [input().strip() for _ in range(N)]

    display_Path_to_Princess(N, grid)
```