

```
def is_safe(board, row, col, n):  
  
    for i in range(col):  
        if board[row][i] == 1: return False  
  
    for i, j in zip(range(row, -1, -1), range(col, -1, -1)):  
        if board[i][j] == 1: return False  
  
    for i, j in zip(range(row, n), range(col, -1, -1)):  
        if board[i][j] == 1: return False  
  
    return True
```

```
def solve(board, col, n):  
  
    if col >= n:  
        print_board(board, n)  
        return True  
  
    for row in range(n):  
        if is_safe(board, row, col, n):  
            board[row][col] = 1
```

```
    if solve(board, col + 1, n): return True  
    board[row][col] = 0  
    return False
```

```
def print_board(board, n):  
    for i in range(n):  
        for j in range(n):  
            print('Q' if board[i][j] == 1 else '.', end=' ' )  
        print()  
    print()
```

```
def main():  
    n = 8  
    board = [[0]*n for _ in range(n)]  
    if not solve(board, 0, n):  
        print("No solution found.")
```

```
if __name__ == "__main__":
```

```
    main()
```