8 Queens Problem

Aim

To solve 8 queens problem using python.

Code

```
def solve(q=[], col=0):
    if col == 8:
        for r in q:
            print("." * r + "Q" + "." * (7 - r))
        exit()
    for row in range(8):
        if all(row != r and abs(row - r) != col - c for c, r in enumerate(q)):
            solve(q + [row], col + 1)
solve()
```

Output

```
Q . . . . . . .
. . . . Q . . .
. . . . . . Q .
. . . . . . . Q
. Q . . . . . .
. . . Q . . . .
. . . . . Q . .
. . Q . . . . .
```

Result

The 8 queen problem is solved using python successfully.