

```
In [1]: def isSafe(arr,x,y,n):
    for row in range(x):
        if arr[row][y] == 1:
            return False
    row = x
    col = y
    while row>=0 and col >=0:
        if arr[row][col] == 1:
            return False
        row = row -1
        col = col -1
    row = x
    col = y
    while row>=0 and col <n:
        if arr[row][col] == 1:
            return False
        row = row -1
        col = col +1
    return True
```

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In [2]: def nQueen(arr,x,n):
    if x>=n:
        return True
    for col in range(n):
        if isSafe(arr,x,col,n):
            arr[x][col]=1
            if nQueen(arr,x+1,n):
                return True
            arr[x][col] = 0
    return False
```

```
In [3]: def main():
    n = int(input("Enter number of Queens : "))
    arr = [[0]*n for i in range(n)]

    if nQueen(arr,0,n):
        for i in range(n):
            for j in range(n):
                print(arr[i][j],end=" ")
            print()
```

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In [4]: if __name__ == '__main__':
    main()
```

```
Enter number of Queens : 8
1 0 0 0 0 0 0 0
0 0 0 0 1 0 0 0
0 0 0 0 0 0 0 1
0 0 0 0 0 1 0 0
0 0 1 0 0 0 0 0
0 0 0 0 0 0 1 0
0 1 0 0 0 0 0 0
0 0 0 1 0 0 0 0
```