```python
n =int(input())
matrix=[]
for x in range(n):
    matrix.append(list(map(int,input().split())))
for i in range(n):
  for j in range(n):
    print(matrix[i][j],end=" ")
  print()
rows = len(matrix)
cols = len(matrix[0])
for col in range(cols):
  if col % 2 == 0:
    for row in range(rows):
        print(matrix[row][col], end=" ")
  else:
    for row in range(rows - 1, -1, -1):
      print(matrix[row][col], end=" ")
```

```python
n=int(input())
arr=[]
for x in range(n):
    arr.append(list(map(int,input().split())))
for i in range(n):
  for j in range(n):
    print(arr[i][j],end=" ")
  print()
rows = len(arr)
cols = len(arr[0])
```

```python
for start_col in range(cols):
    row = 0
    col = start_col
    while row < rows and col >= 0:
        print(arr[row][col], end=" ")
        row += 1
        col -= 1
    print()
for start_row in range(1, rows):
    row = start_row
    col = cols - 1
    while row < rows and col >= 0:
        print(arr[row][col], end=" ")
        row += 1
        col -= 1
    print()
```