#include<bits/stdc++.h>

using namespace std;

void rotate(vector < vector < int >> & matrix) {

int n = matrix.size();

//transposing the matrix

for (int i = 0; i < n; i++) {

for (int j = 0; j < i; j++) {

swap(matrix[i][j], matrix[j][i]);

}

}

//reversing each row of the matrix

for (int i = 0; i < n; i++) {

reverse(matrix[i].begin(), matrix[i].end());

}

}

int main() {

vector < vector < int >> arr;

arr = {{1, 2, 3}, {4, 5, 6}, {7, 8, 9}};

rotate(arr);

cout << "Rotated Image" << endl;

for (int i = 0; i < arr.size(); i++) {

for (int j = 0; j < arr[0].size(); j++) {

cout << arr[i][j] << " ";

}

cout << "n";

}

}