import java.util.Arrays;

public class RatMaze {

public static boolean isSafe(int[][] maze, int x, int y, int n)

{

if(x >=0 && x<n && y>=0 && y<n && maze[x][y] == 1)

{

return true;

}

return false;

}

public static boolean solveMaze(int[][] maze, int[][] sol, int x, int y, int n)

{

//base case

if(x == n-1 && y == n-1 && maze[x][y] == 1)

{

sol[x][y] = 1;

return true;

}

if(*isSafe*(maze, x, y, n) == true)

{

//check if current block is already visited

if(sol[x][y] == 1)

{

return false;

}

//do

sol[x][y] = 1;

//recurse

if(*solveMaze*(maze, sol, x+1, y, n) == true)

{

return true;

}

if(*solveMaze*(maze, sol, x, y+1, n) == true)

{

return true;

}

//backtrack

sol[x][y] = 0;

return false;

}

return false;

}

public static void main(String[] args) {

int[][] maze = {{1, 0, 0, 0},

{1, 1, 0, 1},

{0, 1, 0, 0},

{1, 0, 1, 1}};

int[][] sol = {{0, 0, 0, 0},

{0, 0, 0, 0},

{0, 0, 0, 0},

{0, 0, 0, 0}};

int length = maze.length;

if(*solveMaze*(maze, sol, 0, 0, length))

{

System.*out*.println(Arrays.*deepToString*(sol));

}

else

{

System.*out*.println("Solution does not exist.");

}

}

}