# PATTERN MATCHING

Pattern to be matched:

Input will be an integer

Expected Output :

For n=3  
1 2 3  
7 8 9  
4 5 6

For n=4

1 2 3 4  
9 10 11 12  
13 14 15 16  
5 6 7 8

For n=5  
1 2 3 4 5  
11 12 13 14 15  
21 22 23 24 25  
16 17 18 19 20  
6 7 8 9 10

Program written:

import java.util.Scanner;

public class Main {

public static void main(String[] args) {

Scanner sc=new Scanner(System.in);

System.out.print("enter the number: ");

int n = sc.nextInt();

generatePattern(n);

}

public static void generatePattern(int n) {

int[][] matrix = new int[n][n];

int num = 1;

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

int row;

if (i % 2 == 0) {

row = i / 2;

} else {

row = n - 1 - i / 2;

}

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

matrix[row][j] = num++;

}

}

printMatrix(matrix, n);

}

public static void printMatrix(int[][] matrix, int n) {

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

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

System.out.print(matrix[i][j] + "\t");

}

System.out.println();

}

}

}