//binary number right angle triangle

import java.util.Scanner;

public class Main{

public static void binaryNumberRightAngledTriangle(int n){

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

int start;

if(i%2==0){

start=1;

}

else{

start=0;

}

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

System.out.print(start+" ");

start=1-start;

}

System.out.println();

}

}

public static void main(String[] args){

Scanner sc=new Scanner(System.in);

System.out.println("enter n: ");

int n=sc.nextInt();

binaryNumberRightAngledTriangle(n);

}

}