**Bitstuffing**

import java.io.\*;

import java.lang.\*;

public class Bitstuffing {

 public static void main(String args[]) throws IOException {

 int i = 0, x, q = 0;

 InputStreamReader isr = new InputStreamReader(System.in);

 BufferedReader br = new BufferedReader(isr);

 String sy = "01111110", sx;

 StringBuilder sby = new StringBuilder(sy);

 System.out.println("enter the data:");

 sx = br.readLine();

 StringBuilder sbx = new StringBuilder(sx);

 x = sx.length();

 int consecutiveOnes = 0;

 while (i < x) {

 if (sbx.charAt(i) == '1') {

 consecutiveOnes++;

 if (consecutiveOnes == 5) {

 sbx.insert(i + 1, '0');

 i++;

 consecutiveOnes = 0; // Reset the counter after adding 0 bit

 }

 } else {

 consecutiveOnes = 0; // Reset the counter if the current bit is not 1

 }

 i++;

 }

 System.out.println("bit stuffing:");

 System.out.println(sbx);

 System.out.println("final output:");

 System.out.println(sby + " " + sbx + " " + sby);

 System.out.println(sby.append(sbx.append(sby)));

 }

}

**Output:**

enter the data:

110011111101111111

bit stuffing:

11001111101011111011

final output:

01111110 11001111101011111011 01111110

011111101100111110101111101101111110