**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