import java.io.BufferedReader;

import java.io.IOException;

import java.io.InputStreamReader;

import java.util.ArrayList;

import java.util.List;

/\*

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public class ByteStuffing {

String frame;

public ByteStuffing(){

frame = "";

}

public ByteStuffing(String frame){

this.frame = frame;

}

public static String senderByteStuff(List<ByteStuffing> frameList){

String sendString = "";

for(ByteStuffing frameObj: frameList){

String frame = frameObj.frame;

String append = "#";

frame = frame.replaceAll("\\$", "\\$\\$");

frame = frame.replaceAll("#", "\\$#");

frame = append + frame + append;

sendString = sendString + frame;

}

return sendString;

}

public static String receiverByteStuff(String sentString)

{

sentString = sentString.substring(1, sentString.length()-1);

sentString = sentString.replaceAll("\\$\\$", "\\$");

List<ByteStuffing> frameList = new ArrayList<ByteStuffing>();

while(sentString.contains("##"))

{

String frameString = sentString.substring(0, sentString.indexOf("##"));

frameString = frameString.replaceAll("\\$#", "#");

ByteStuffing frame = new ByteStuffing(frameString);

frameList.add(frame);

sentString = sentString.substring(sentString.indexOf("##")+2, sentString.length());

}

sentString = sentString.replaceAll("\\$#", "#");

ByteStuffing frame = new ByteStuffing(sentString);

frameList.add(frame);

String receivedString = "";

for(ByteStuffing frameObj: frameList)

{

String frameString = frameObj.frame;

receivedString = receivedString + frameString + "\n";

}

return receivedString;

}

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

BufferedReader br = new BufferedReader(new InputStreamReader(System.in));

System.out.println("Enter the number of frames.");

int numberOfFrames = Integer.parseInt(br.readLine());

List<ByteStuffing> frameList = new ArrayList<ByteStuffing>();

System.out.println("Enter the frames one by one.");

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

ByteStuffing frame = new ByteStuffing(br.readLine());

frameList.add(frame);

}

System.out.println("BYTE STUFFING");

String sentString = ByteStuffing.senderByteStuff(frameList);

System.out.println("Sent String : "+sentString);

String receivedString = ByteStuffing.receiverByteStuff(sentString);

System.out.println("Received String Framewise : \n"+receivedString);

}

}

/\*

Output:

Enter the number of frames.

3

Enter the frames one by one.

asdfghjk

###$$$$

1234

BYTE STUFFING

Sent String : #asdfghjk##$#$#$#$$$$$$$$##1234#

Received String Framewise :

asdfghjk

###$$$$

1234

\*/