bit stuffing for sending data from client to server

Client Program:

import java.net.\*;

import java.util.\*;

import java.io.\*;

class clientbit

{

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

{

Scanner sc = new Scanner(System.in);

Socket s = new Socket("localhost",2345);

DataOutputStream dos = new DataOutputStream(s.getOutputStream());

System.out.print("Enter the message");

String str = sc.nextLine();

int j =0;

String flag ="01111110";

String st=flag;

for(int i =0;i<str.length();i++)

{

char a = str.charAt(i);

if(a=='1')

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j++;

st = st+a;

}

else

{

j=0;

st = st+a;

}

if(j==5)

{

j=0;

st = st+"0";

}

}

st = st+flag;

System.out.println("Bit Stuffed with flag: " +st);

dos.writeUTF(st);

dos.close();

s.close();

}

}

**OUTPUT:**

Enter data to send

011111110

bit stuffed data is .. 01111110011111011001111110

Server Program:

import java.net.\*;CS18412 - COMPUTER NETWORKS LABORATORY

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import java.util.\*;

import java.io.\*;

class serverbit

{

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

{

ServerSocket ss = new ServerSocket(2345);

Socket s = ss.accept();

DataInputStream dis = new DataInputStream(s.getInputStream());

String str = dis.readUTF();

int j =0;

String st="";

str = str.substring(8,str.length()-8);

System.out.println("Bit stuffed: "+str);

for(int i =0;i<str.length();i++)

{

char a = str.charAt(i);

if(a=='1')

{

j++;

st = st+a;

}

else if(j==5 && a=='0')

j=0;

else

{

j=0;

st = st+a;

}

}

System.out.println("Message Received: "+st);

dis.close();

s.close(); ss.close();

}

}

**OUTPUT:**

received stuffed data is .. 01111110011111011001111110

received original data is .. 011111110