BIT Stuffing and Destuffing

```
import java.util.*;
public class bit_stuffing
    {
    public static void main(String[] args)
     {
        Scanner sc=new Scanner(System.in);
        System.out.print("Enter the message:-");
        String d1 = sc.nextLine();
        String remaining = new String();
        String output=new String();
        int counter = 0;
        for(int i=0;i<d1.length();i++)
         {
           if (d1.charAt(i)!='1' && d1.charAt(i)!='0')
               {
                  System.out.println("Enter valid Binary values");
                  return;
               }
           if(d1.charAt(i) == '1')
               {
                  counter++;
                  remaining = remaining + d1.charAt(i);
               }
           else
               {
                  remaining = remaining + d1.charAt(i);
                  counter = 0;
               }
           if(counter == 5)
               {
                  remaining = remaining + '0';
                  counter = 0;
               }
         }
       System.out.println("Flag--> 01111110");
       String new1="|01111110 | "+remaining+" | 01111110|";
       System.out.println("Stuffed data at intermediate site is:");
       for(int k=0;k<=(28+d1.length());k++)
```

```
        {
          System.out.print("-");
        }
        System.out.println();
        System.out.println(" "+new1);
        for(int k=0;k<=(28+d1.length());k++)
        {
          System.out.print("-");
        }
        System.out.println();
        counter=0;
        for(int i=0;i<remaining.length();i++)
            {
               if(remaining.charAt(i) == '1')
                  {
                     counter++;
                     output = output + remaining.charAt(i);
                  }
               else
                  {
                      output = output + remaining.charAt(i);
                      counter = 0;
                  }
              if(counter == 5)
                  {
                       if((i+2)!=remaining.length())
                       {
                         output = output + remaining.charAt(i+2);
                       }
                       else
                       {
                         output=output + '1';
                       }
                       i=i+2;
                       counter = 1;
                  }
             }
           System.out.println("Destuffed BIT is: "+output);
      }
}
```

Character Stuffing and Destuffing

```
import java.io.*;
import java.util.*;
import  java.lang.*;
class Charstuff
{
   public static void main(String args[])
   {
      Scanner k =new Scanner (System.in);
      System.out.println("enter the string\t");
      String s=k.nextLine();
       String str1;
       String str2="";
      int i,m,j;
      m=s.length();
      System.out.println("original data     "+s);
     str1="dlestx";
     for(i=0;i<=m-1;i++)
     {
       if((s.charAt(i)=='d')&&(s.charAt(i+1)=='l')&&(s.charAt(i+2)=='e'))
      {
      str1=str1+"dle";
      }
      str1=str1+s.substring(i,i+1);
   }
   str1=str1+"dleetx";
   int p=str1.length();
   System.out.println("transmitted data      "+str1);
   for(i=6;i<p-6;i++)
   {

if((str1.charAt(i)=='d')&&(str1.charAt(i+1)=='l')&&(str1.charAt(i+2)=='e')&&(
str1.charAt(i+3)=='d')&&(str1.charAt(i+4)=='l')&&(str1.charAt(i+5)=='e'))
      {
         i=i+3;
      }
      str2=str2+str1.substring(i,i+1);
   }
   System.out.println("received data is         "+str2);
```

```
    }
}
```