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Computer Networks lab  
Batch ~ 3  
Program ~ 8

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```
import java.util.*;
public class CRC {
    public static int n;
    public static void main (String [] args) {
        Scanner in = new Scanner (System.in);
        CRC ob = new CRC();
        String code, copy, rec, zero = "0000000000000000";
        System.out.println ("Enter message");
        code = in.nextLine();
        n = code.length();
        copy = code;
        code += zero;
        code = ob.divide (code);
        System.out.println ("Message = " + copy);
        copy = copy.substring (0, n) + code.substring (n);
        System.out.println ("CRC = ")
        System.out.println (code.substring (n));
        System.out.println ("transmitted frame is " + copy);
        System.out.println ("Enter received data");
        rec = in.nextLine();
        if (zero.equals (ob.divide (rec).substring (n)))
            System.out.println ("Correct bits received");
        else
            System.out.println ("Received frame contains
                                one or more errors");
        in.close();
    }
}
```

Rutazeet



2

IBM KCSIS

```
public String divide (String s) {  
    int i, j;  
    char x;  
    String div = "1000100000001000001";  
    for (i=0; i<n; i++) {  
        x = s.charAt(i);  
        for (j=0; j<17; j++) {  
            if (x == '1') {  
                if (s.charAt(i+j) != div.charAt(j))  
                    s = s.substring(0, i+j) + "1" +  
                        s.substring(i+j+1);  
            }  
            else  
                s = s.substring(0, i+j) + "0" +  
                    s.substring(i+j+1);  
        }  
    }  
    return s;  
}
```

Revised.