

```
1 import java.io.*;
2 import java.util.*;
3 class RC4
4 {
5 public static void main(String args[])throws Exception
6 {
7 int temp=0;
8 String ptext;
9 String key;
10 int s[]=new int[256];
11 int k[]=new int[256];
12 Scanner in=new Scanner(System.in);
13 System.out.println("ENTER PLAIN TEXT");
14 ptext=in.next();
15 System.out.println("ENTER KEY TEXT");
16 key=in.next();
17 char ptextc[]=ptext.toCharArray();
18 char keyc[]=key.toCharArray();
19 int cipher[]=new int[ptext.length()];
20 int decrypt[]=new int[ptext.length()];
21
22 int ptexti []=new int[ptext.length()];
23 int keyi []=new int[key.length()];
24 for(int i=0; i<ptext.length(); i++)
25 {
26 ptexti [i ]=(int)ptextc[i ];
27 }
28 for(int i=0; i<key.length(); i++)
29 {
30 keyi [i ]=(int)keyc[i ];
31 }
32 for(int i=0; i<255; i++)
33 {
34 s[i ]=i ;
35 k[i ]=keyi [i %key.length()];
36 }
37 int j=0;
38 for(int i=0; i<255; i++)
39 {
40 j=(j+s[i ]+k[i ])%256;
41 temp=s[i ];
42 s[i ]=s[j];
43 s[j]=temp;
44 }
45 int i=0;
46 j=0;
47 int z=0;
48 for(int l=0; l<ptext.length(); l++)
49 {
50 i=(l+1)%256;
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51 j=(j+s[i])%256;
52 temp=s[i];
53 s[i]=s[j];
54 s[j]=temp;
55 z=(s[i]+s[j])%256;
56 cipher[l]=z^ptexti[l];
57 decrypt[l]=z^cipher[l];
58 }
59 System.out.println("ENCRYPTED: ");
60 display(cipher);
61 System.out.println("\nDECRYPTED: ");
62 display(decrypt);
63 }
64
65 static void display(int di sp[])
66 {
67 char convert[]=new char[di sp.length];
68 for(int l=0; l<di sp.length; l++)
69 {
70 convert[l]=(char)di sp[l];
71 System.out.print(convert[l]);
72 }
73 }
74
75 }
```