```java

//  ROT13 cipher is a very simple encryption cipher that rotates the alphabet by
//  13 letters to change “A” to “N”, “B” to “O”, “C” to “P”, “X” to “K”,
//  “Y” to “L”, “Z” to “M”, etc.
//
//  e.g. “secret” would be encrypted to “frperg”
//
//  Create a program that takes a single word in lowercase letters, stored as a
//  constant variable, and outputs it as a ROT13 encrypted version.

import java.util.Scanner;

public class Assignment1c {

    public static void main(String[] args) {
        Assignment1c RotProgram = new Assignment1c();

        Scanner s = new Scanner(System.in);

        //asking the user for an input
        System.out.print("Please put a sentence in: ");
        String str = s.nextLine();

        String changedString = RotProgram.changeString(str);

        //displaying the unencrypted and encrypted strings
        System.out.println("Unencrypted: " + str);
        System.out.println("Encrypted: " + changedString);

    }

    //String encryption
    private String changeString(String str) {
        String output = "";
        for (int i=0; i<str.length(); i++) {
            char changedChar = newChar(str.charAt(i));
            output += changedChar;
        }
        return output;
    }

```

```
42      public char newChar(char inputChar) {
43          int numAlphabet = 26;
44          char[] alphabet = {'a', 'b', 'c', 'd', 'e', 'f', 'g
    ', 'h', 'i', 'j', 'k', 'l', 'm',
45                             'n', 'o', 'p', 'q', 'r', 's', 't
    ', 'u', 'v', 'w', 'x', 'y', 'z'};
46
47          char changedChar = inputChar;
48          //Checking if the current letter is uppercase or
    lowercase
49          boolean uppercase = !(changedChar == (Character.
    toLowerCase(changedChar)));
50
51          for (int i=0; i<numAlphabet; i++) {
52              //converting the inputChar into lowercase
53              if (Character.toLowerCase(inputChar) ==
    alphabet[i]) {
54                  int newSpotInAlphabet = i + 13;
55
56                  if (newSpotInAlphabet >= numAlphabet) {
57                      newSpotInAlphabet -= numAlphabet;
58                  }
59
60                  //Changing the originally uppercase
    characters back to uppercase
61                  if (uppercase) {
62                      changedChar = Character.toUpperCase(
    alphabet[newSpotInAlphabet]);
63                  }else
64                      changedChar = alphabet[
    newSpotInAlphabet];
65              }
66          }
67          return changedChar;
68
69      }
70  }
```