```
 1
 2 //  Fibonacci numbers are a series of numbers where the first two numbers are 1,
 3 //  and each subsequent number is the sum of the two previous numbers.
 4 //
 5 //  e.g.  1 1 2 3 5 8 13 ….
 6 //
 7 //  Create a program that calculates and outputs the first 20 numbers in the
 8 //  sequence on a single line.
 9
10 public class Assignment1b {
11
12     public static void main(String[] args) {
13
14         // making an array of characters to contain the modified alphabet
15         char[] oldAlphabet = {'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M',
16                               'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z'};
17         char[] newAlphabet = {'N', 'O', 'P', 'Q', 'R', 'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z',
18                               'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M'};
19
20         //storing a single word as a constant variable
21         String str = "secret";
22
23         char encryptedText = ' ';
24
25         // looping through each letter in the string
26         int count = 0;
27         System.out.println("Decrypted Text: ");
28         System.out.println(str);
29         System.out.println("Encrypted Text: ");
30         for (int i=0; i<str.length(); i++){
31             // making each character a single character and holding it into "ch"
32             char ch = str.charAt(i);
33
34             // checking if the character is equal to the character input
35             if (ch >= 'a' && ch <= 'm') {
36                 count++;
```

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37                  encryptedText = (char) (ch + 13);
38              }
39              else if (ch >= 'n' && ch <= 'z') {
40                  count++;
41                  encryptedText = (char) (ch - 13);
42              }
43              System.out.print(encryptedText);
44          }
45
46
47
48
49      }
50  }
```