# Lab 21 – Assignment

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1) Write a program to accept string and change the case of each letter of the string. display the new string

eg: Welcome to Java

O/P:  wELCOME TO jAVA

```java
package com.wrapperclass.examples;
import java.util.*;
public class ChangeCase {
    public static void main(String[] args) {
        Scanner scanner = new Scanner(System.in);

        // Input string
        System.out.print("Enter a string: ");
        String inputString = scanner.nextLine();

        // Change case of each letter
        String resultString = changeCase(inputString);

        // Display the new string
        System.out.println("Original String: " +
inputString);
        System.out.println("New String: " +
resultString);

        scanner.close();
    }

    private static String changeCase(String input) {
        char[] charArray = input.toCharArray();

        for (int i = 0; i < charArray.length; i++) {
            char currentChar = charArray[i];
```

```java
            // Check if the character is uppercase or
lowercase and change accordingly
            if (Character.isUpperCase(currentChar)) {
                charArray[i] =
Character.toLowerCase(currentChar);
            } else if
(Character.isLowerCase(currentChar)) {
                charArray[i] =
Character.toUpperCase(currentChar);
            }
        }

        return new String(charArray);
    }
}
```

**Output:**

```java
 1 package com.wrapperclass.examples;
 2 import java.util.*;
 3 public class ChangeCase {
 4⊖    public static void main(String[] args) {
 5          Scanner scanner = new Scanner(System.in);
 6
 7          // Input string
 8          System.out.print("Enter a string: ");
 9          String inputString = scanner.nextLine();
10
11          // Change case of each letter
12          String resultString = changeCase(inputString);
13
14          // Display the new string
15          System.out.println("Original String: " + inputString);
16          System.out.println("New String: " + resultString);
17
18          scanner.close();
```

Problems  @ Javadoc  Declaration  Console ×  Coverage                                    ⬜ ✖
&lt;terminated&gt; ChangeCase [Java Application] C:\Users\USER\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_19.0.2.v2023012
Enter a string: wELCOME TO jAVA
Original String: wELCOME TO jAVA
New String: Welcome to Java

2) Read a string and replace only vowels with a specific letter to perform encoding operation.

```java
package com.wrapperclass.examples;
import java.util.*;
public class Encoding {
    public static void main(String[] args) {

        Scanner sc = new Scanner(System.in);

        StringBuilder sb = new StringBuilder();

        System.out.println("Enter a string with alpha and numerals");
        String str=sc.nextLine();

        int i;


        for(i=0;i<str.length();i++)
        {
            char ch =str.charAt(i);

            switch(ch)
            {
            case 'a':
            case 'A':
                sb.append('m');
                break;
            case 'e':
            case 'E':
                sb.append('n');
                break;
            case 'i':
            case 'I':
                sb.append('o');
                break;
            case 'o':
            case 'O':
                sb.append('p');
```

```java
                    break;
            case 'u':
            case 'U':
                    sb.append('q');
                    break;
            default:
                    sb.append(ch);


        }


    }

        System.out.println("after encoding "+sb);

    }

}
```
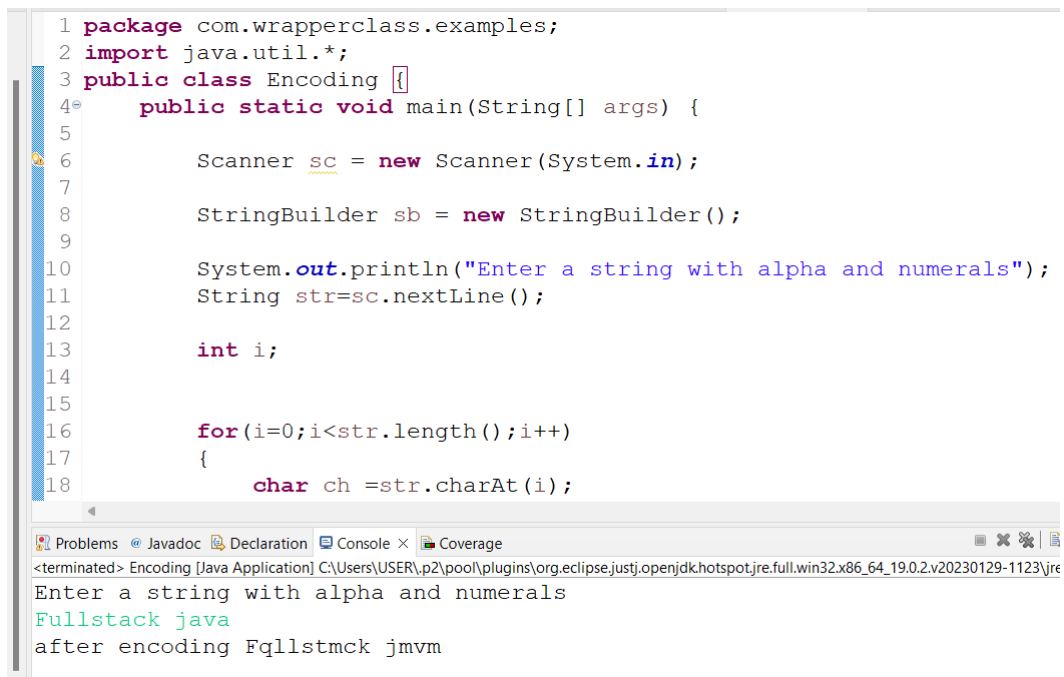
## Output:

```java
 1 package com.wrapperclass.examples;
 2 import java.util.*;
 3 public class Encoding {
 4⊖    public static void main(String[] args) {
 5
 6          Scanner sc = new Scanner(System.in);
 7
 8          StringBuilder sb = new StringBuilder();
 9
10          System.out.println("Enter a string with alpha and numerals");
11          String str=sc.nextLine();
12
13          int i;
14
15
16          for(i=0;i<str.length();i++)
17          {
18              char ch =str.charAt(i);
```

Problems  @ Javadoc  Declaration  Console ×  Coverage

<terminated> Encoding [Java Application] C:\Users\USER\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_19.0.2.v20230129-1123\jre

```
Enter a string with alpha and numerals
Fullstack java
after encoding Fqllstmck jmvm
```