

LAB21_ANP_C6339_STRINGMANUPULATION

Due date: Saturday, 16 December 2023, 5:30 AM

Maximum number of files: 1

Type of work: Individual work

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Assignment-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

Solution:-

```
import java.util.Scanner;
```

```
public class ChangeCase {  
    public static void main(String[] args) {  
        // Create a Scanner object to take user input  
        Scanner scanner = new Scanner(System.in);  
  
        // Prompt the user to enter a string  
        System.out.println("Enter a string:");  
        String inputString = scanner.nextLine();  
  
        // Change the case of each letter in the string  
        String changedCaseString = changeCase(inputString);  
  
        // Display the new string  
        System.out.println("Output: " + changedCaseString);  
  
        // Close the scanner  
        scanner.close();  
    }  
}
```

```
// Function to change the case of each letter in the string
private static String changeCase(String input) {
    char[] charArray = input.toCharArray();

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

        if (Character.isUpperCase(currentChar)) {
            charArray[i] = Character.toLowerCase(currentChar);
        } else if (Character.isLowerCase(currentChar)) {
            charArray[i] = Character.toUpperCase(currentChar);
        }
        // If the character is not a letter, leave it unchanged
    }

    // Convert the char array back to a string
    return new String(charArray);
}
}
```

Output:

```
C:\Users\thila\OneDrive\Desktop\Anudip_Labs>javac ChangeCase.java
C:\Users\thila\OneDrive\Desktop\Anudip_Labs>java ChangeCase
Enter a string:
Welcome to Java
Output: wELCOME TO jAVA
```

Assignment-2.

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

eg:

computer

encoding : cpmptpr

Solution:-

```
import java.util.Scanner;
```

```

import java.util.Scanner;

public class StringEncoder {

    public static void main(String[] args) {

        Scanner scanner = new Scanner(System.in);

        // Input string and encoding symbol
        System.out.print("Enter the string: ");
        String text = scanner.nextLine();
        System.out.print("Enter the encoding symbol: ");
        char symbol = scanner.nextLine().charAt(0);

        // Replace vowels with the symbol
        String encodedText = "";
        for (char c : text.toCharArray()) {
            if (isVowel(c)) {
                encodedText += symbol;
            } else {
                encodedText += c;
            }
        }

        // Print the original and encoded text
        System.out.println("Original text: " + text);
        System.out.println("Encoded text: " + encodedText);
    }

    private static boolean isVowel(char c) {
        return "aeiouAEIOU".indexOf(c) != -1;
    }
}

```

Output:

```
C:\Users\thila\OneDrive\Desktop\Anudip_Labs>javac StringEncoder.java
```

```
C:\Users\thila\OneDrive\Desktop\Anudip_Labs>java StringEncoder
```

```
Enter the string: computer
```

```
Enter the encoding symbol: p
```

```
Original text: computer
```

```
Encoded text: cpmptpr
```
