**PRACTICAL-8**

**AIM**: Suppose you are developing a text transformation tool. Your task is to create a function that takes a string and transforms it such that every character in the original string is doubled. For example, "The" becomes "TThhee". How would you design and implement this function in Java to handle any input string effectively?

**CODE:**

import java.util.\*;

import java.util.Scanner;

public class pr8 {

public static void main(String[] args) {

String input = "The"; // Example input

String result = doubleCharacters(input);

System.out.println(result); // Output: "TThhee"

System.out.println("23DIT044-Heli Patel");

}

public static String doubleCharacters(String input) {

if (input == null || input.isEmpty()) {

return input;

}

StringBuilder doubledString = new StringBuilder(input.length() \* 2);

for (char c : input.toCharArray()) {

doubledString.append(c).append(c);

}

return doubledString.toString();

}

}

**OUTPUT:**

