

Aim:

A group of friends sent a message to Jaya, but due to a technical glitch, the message contained duplicate characters. To overcome this kind of problem she decided to craft a Java program using a **StringBuffer** constructor that takes the glitchy message as input and returns a new string with all duplicate characters removed.

How can Jaya craft this program?

Input Format:

The input line reads a string representing the glitchy message.

Output Format:

The output is a string after removing the duplicate characters (Including special characters, space).

Note: Use println() to print the output statements.

Source Code:

q22135/Main.java

```
package q22135;

import java.util.HashSet;
import java.util.Set;
import java.util.Scanner;

public class Main {
    public static void main(String args[]) {
        // Create a Scanner object to read input
        Scanner scanner = new Scanner(System.in);
        // Read the input string
        String input = scanner.nextLine();
        // Use a StringBuffer to build the result string
        StringBuffer result = new StringBuffer();
        // Use a Set to keep track of seen characters
        Set<Character> seen = new HashSet<>();

        // Traverse each character in the input string
        for (char ch : input.toCharArray()) {
            // If the character has not been seen before, add it to the result
            if (!seen.contains(ch)) {
                result.append(ch);
                seen.add(ch);
            }
        }

        // Print the result
        System.out.println(result.toString());
    }
}
```

Execution Results - All test cases have succeeded!

Test Case - 1
User Output
abcdef
abcdef

Test Case - 2
User Output
a a b b c c
a bc