Java Program to Reverse a String using Recursion

BY CHAITANYA SINGH | FILED UNDER: JAVA EXAMPLES

We will see two programs to reverse a string. First program reverses the given string using recursion and the second program reads the string entered by user and then reverses it.

To understand these programs you should have the knowledge of following core java concepts:
1) substring() in java
2) charAt() method

Example 1: Program to reverse a string

```java
public class JavaExample {

    public static void main(String[] args) {
        String str = "Welcome to Beginnersbook";
        String reversed = reverseString(str);
        System.out.println("The reversed string is: " + reversed);
    }

    public static String reverseString(String str)
    {
        if (str.isEmpty())
            return str;
        //Calling Function Recursively
        return reverseString(str.substring(1)) + str.charAt(0);
    }
}
```
Output:

```
The reversed string is: koobsrennigeB ot emocleW
```

Example 2: Program to reverse a string entered by user

```java
import java.util.Scanner;
public class JavaExample {

    public static void main(String[] args) {
        String str;
        System.out.println("Enter your username: ");
        Scanner scanner = new Scanner(System.in);
        str = scanner.nextLine();
        scanner.close();
        String reversed = reverseString(str);
        System.out.println("The reversed string is: " + reversed);
```

```
    }

    public static String reverseString(String str)
    {
        if (str.isEmpty())
            return str;
        //Calling Function Recursively
        return reverseString(str.substring(1)) + str.charAt(0);
    }
}
```

Output:

```
Enter your username:
How are you doing?
The reversed string is: ?gniod uoy era woH
```