1. Mutable String in Java:

A mutable string in Java can be implemented using the StringBuilder class. Unlike the traditional String class, which is immutable, StringBuilder allows you to modify the contents of a string without creating a new string object. Here's an example:

java

StringBuilder mutableString = new StringBuilder("Hello");

mutableString.append(" World");

mutableString.insert(5, " Java");

mutableString.delete(5, 9);

System.out.println(mutableString.toString()); // Output: "HelloJava World"

2. Java program to reverse a String:

java

public class ReverseString {

public static String reverseString(String input) {

StringBuilder reversed = new StringBuilder(input);

reversed.reverse();

return reversed.toString();

}

public static void main(String[] args) {

String input = "PWSKILLS";

String output = reverseString(input);

System.out.println(output); // Output: "SLLIKSPW"

}

}

3. Java program to reverse a sentence while preserving the position:

java

public class ReverseSentence {

public static String reverseSentence(String input) {

String[] words = input.split(" ");

StringBuilder reversed = new StringBuilder();

for (int i = 0; i < words.length; i++) {

String word = words[i];

String reversedWord = new StringBuilder(word).reverse().toString();

reversed.append(reversedWord);

if (i < words.length - 1) {

reversed.append(" ");

}

}

return reversed.toString();

}

public static void main(String[] args) {

String input = "Think Twice";

String output = reverseSentence(input);

System.out.println(output); // Output: "kniht eciwt"

}

}

4. Java program to sort a String alphabetically:

java

public class SortString {

public static String sortStringAlphabetically(String input) {

char[] chars = input.toCharArray();

Arrays.sort(chars);

return new String(chars);

}

public static void main(String[] args) {

String input = "programming";

String output = sortStringAlphabetically(input);

System.out.println(output); // Output: "aggimmnoprr"

}

}