

String manipulation:

String manipulation is a common task in Java, and it involves modifying or extracting information from strings. I'll provide two code examples to illustrate different aspects of string manipulation in Java.

Example 1: Concatenating Strings

In this example, we'll concatenate (join) two strings together using the `+` operator and the `concat` method.

```
```java
public class StringConcatenationExample {
 public static void main(String[] args) {
 String firstName = "John";
 String lastName = "Doe";

 // Using the + operator for string concatenation
 String fullName1 = firstName + " " + lastName;
 System.out.println("Using + operator: " + fullName1);

 // Using the concat method for string concatenation
 String fullName2 = firstName.concat(" ").concat(lastName);
 System.out.println("Using concat method: " + fullName2);
 }
}
```
```

In this code, we have two strings, `firstName` and `lastName`, and we concatenate them using both the `+` operator and the `concat` method. The output will be:

```
...
Using + operator: John Doe
Using concat method: John Doe
...
```

Example 2: String Splitting and Substring

In this example, we'll split a string into substrings using a delimiter and extract a substring from the original string.

```
```java
public class StringSplitAndSubstringExample {
 public static void main(String[] args) {
```

```

String sentence = "This is a sample sentence for splitting and substring.";

// Splitting the sentence into words using space as a delimiter
String[] words = sentence.split(" ");
System.out.println("Words in the sentence:");

for (String word : words) {
 System.out.println(word);
}

// Extracting a substring from the original sentence
String substring = sentence.substring(10, 23); // Extracts "sample sentence"
System.out.println("Extracted Substring: " + substring);
}
}
...

```

In this code, we take a sentence and split it into words using the `split` method with space as the delimiter. Then, we extract a substring using the `substring` method. The output will be:

```

...
Words in the sentence:
This
is
a
sample
sentence
for
splitting
and
substring.
Extracted Substring: sample sentence
...

```

Certainly! Here are two more examples of string manipulation in Java:

### ### Example 3: Replacing Substrings

In this example, we'll replace a specific substring with another substring within a larger string using the `replace` method.

```

```java
public class StringReplaceExample {
    public static void main(String[] args) {

```

```

String originalString = "Hello, World!";

// Replace "World" with "Java"
String replacedString = originalString.replace("World", "Java");

System.out.println("Original String: " + originalString);
System.out.println("Replaced String: " + replacedString);
}
}
...

```

In this code, we have an `originalString`, and we use the `replace` method to replace the substring "World" with "Java". The output will be:

```

...
Original String: Hello, World!
Replaced String: Hello, Java!
...

```

Example 4: Converting Case

In this example, we'll convert the case of a string, changing it from uppercase to lowercase and vice versa using the `toUpperCase` and `toLowerCase` methods.

```

```java
public class StringCaseConversionExample {
 public static void main(String[] args) {
 String originalString = "Hello, World!";

 // Convert to uppercase
 String upperCaseString = originalString.toUpperCase();

 // Convert to lowercase
 String lowerCaseString = originalString.toLowerCase();

 System.out.println("Original String: " + originalString);
 System.out.println("Uppercase String: " + upperCaseString);
 System.out.println("Lowercase String: " + lowerCaseString);
 }
}
...

```

In this code, we have an `originalString`, and we use the `toUpperCase` method to convert it to uppercase and the `toLowerCase` method to convert it to lowercase. The output will be:

...

Original String: Hello, World!

Uppercase String: HELLO, WORLD!

Lowercase String: hello, world!

...

These examples demonstrate additional string manipulation techniques, including replacing substrings and converting the case of strings. String manipulation is a versatile concept in Java, and these examples should help you understand how to perform various operations on strings to meet your application's needs.