



Working with Strings

Session Goals



By the end of this session, you should be able to demonstrate how to:

- **Use String class in Java**
- **Use built-in methods of String class**

Context Setting



Let Us Try To Find Out



- **What are Strings?**
- **Why use Strings?**
- **How Strings work?**
- **What are Mutable and Immutable Strings?**
- **Which are the important built-in methods of String?**

How Can We Create a String?

- String literal
`String msg="Hello";`
- Using new keyword
`String string = new String ("Hello");`

Immutable String

```
String s1="Hello";  
s1.concat("World");  
String s2=s1.concat("world").
```

Important Methods of String

Method	Description	Example	Output
char charAt(int index)	This method returns character value of given index	String str = "Fruit"; char result = str.charAt(3); System.out.println(result);	i
int length()	This method returns length of string	String str = "newstring"; int len = str.length(); System.out.println(len);	9
static String format(String format, Object arg)	This method returns a formatted string	String str="JavaString"; String str1=String.format("Value is %s",name); String str2=String.format("Value is %f",22.44434); String str3=String.format("Value is %32.12f",22.44434);	Value is JavaString Value is 22.444340 Value is 22.444340000 000

Important Methods of String

Method	Description	Example	Output
String substring(int beginIndex, int endIndex)	This method returns substring of given begining index and end index	<pre>String Str = new String("Welcome to Java"); System.out.print("Value Returned:"); System.out.println(Str.subs tring(10));</pre>	Value Returned: Java
boolean contains(CharSequence s)	This method returns true or false after matching the given character sequence	<pre>String str_Sample = "LittleStar"; System.out.println("sequenc e 'tar': " + str_Sample.contains("tar")) ;</pre>	sequence 'tar': true

Important Methods of String

Contd.

Method	Description	Example	Output
boolean equals(Object obj)	This method checks the equality of string with the given object	<pre>String str1 = "Fruit"; String str2 = "Fruit"; boolean result = str1.equals(str2); System.out.println(result);</pre>	TRUE
boolean isEmpty()	This method checks whether string is empty or not	<pre>String str1=""; String str2="javastring"; System.out.println(str1.isEmpty()); System.out.println(str2.isEmpty());</pre>	true false
String concat(String str)	This method concatenates the given string.	<pre>String str1 = "Hello "; String str2 = "Everybody"; System.out.println(str1.concat(str2));</pre>	Hello Everybody

Important Methods of String

Contd.

Method	Description	Example	Output
String replace(char old, char new)	This method replaces all occurrences of the given character value	<pre>String Str = new String("Welcome to Java"); System.out.print("Value Returned:"); System.out.println(Str.replac e('o', 'T'));</pre>	WelcTme tT Java
Static String equalsIgnoreCase (String another)	This method compares another string by ignoring the case	<pre>String Str1 = new String("fruits"); String Str2 = new String("FRUITS"); System.out.println("Return = "+ Str1.equalsIgnoreCase(Str2));</pre>	Return = true

Important Methods of String

Contd.

Method	Description	Example	Output
<code>int compareTo(String str)</code>	This method Compares the current string object with another string.	<pre>String str1 = "fruits"; String str2 = "fruits are good"; int result = str1.compareTo(str2); System.out.println(result);</pre>	-9
<code>int indexOf(int ch)</code>	This method returns the specified character value index	<pre>String Str = new String("Welcome to Java"); System.out.print("Index Found at:"); System.out.println(Str.indexOf('o'));</pre>	Index Found at:4

Important Methods of String

Contd.

Method	Description	Example	Output
String toLowerCase()	This method returns lowercase string	<pre>String Str = new String("WELCOME TO JAVA"); System.out.print("Value Returned:"); System.out.println(Str.toLowerCase());</pre>	welcome to java
String toUpperCase()	This method returns uppercase string	<pre>String Str = new String("Welcome to Java"); System.out.print("Value Returned:"); System.out.println(Str.toUpperCase());</pre>	WELCOME TO JAVA
String trim()	This method removes spaces from beginning and ending of given string	<pre>String Str = new String(" WELCOME TO JAVA"); System.out.print("Value Returned:"); System.out.println(Str.trim());</pre>	WELCOME TO JAVA

String Demo Code

```
public class StringMethodsDemo {  
    public static void main(String[] args) {  
        stringEquals();  
        stringCompares();  
    }  
    static void stringEquals()  
    {  
        String string1 = new String("Programming");  
        String string2 = new String("Programming");  
        System.out.println(string1 == string2);  
        System.out.println(string1.equals(string2));  
    }  
  
    static void stringCompares(){  
        String string1 = "Java";  
        String string2 = "Java";  
        String string3 = "Jawa";  
        String string4 = "Jata";  
        System.out.println(string1.compareTo(string2));  
        System.out.println(string1.compareTo(string3));  
        System.out.println(string1.compareTo(string4));  
    }  
}
```

Key TakeAways

At the end of this session, you should be able to demonstrate how to:

- **Use String class in Java**
- **Use built-in methods of String class**

Thank You!