***Some String Methods in JAVA***

1. **charAt()**

Returns the character at a specified index in a string.

**Example:**

String str = "Hello";

char ch = str.charAt(1); // 'e'

System.out.println(ch); // Output: e

1. **length()**

Returns the length of the string.

**Example:**

String str = "Hello";

int len = str.length(); // 5

System.out.println(len); // Output: 5

1. **concat()**

Concatenates the specified string to the end of another string.

**Example:**

String str1 = "Hello";

String str2 = "World";

String result = str1.concat(str2); // "HelloWorld"

System.out.println(result); // Output: HelloWorld

1. **indexOf()**

Returns the index within the string of the first occurrence of the specified character or substring.

**Example:**

String str = "Hello";

int index = str.indexOf('e'); // 1

System.out.println(index); // Output: 1

1. **lastIndexOf()**

Returns the index within the string of the last occurrence of the specified character or substring.

**Example:**

String str = "HelloHello";

int lastIndex = str.lastIndexOf('e'); // 6

System.out.println(lastIndex); // Output: 6

1. **startsWith()**

Checks if the string starts with the specified prefix.

**Example:**

String str = "Hello";

boolean starts = str.startsWith("He"); // true

System.out.println(starts); // Output: true

1. **endsWith()**

Checks if the string ends with the specified suffix.

**Example:**

String str = "Hello";

boolean ends = str.endsWith("lo"); // true

System.out.println(ends); // Output: true

1. **trim()**

Removes leading and trailing whitespace from the string.

**Example:**

String str = " Hello ";

String trimmedStr = str.trim(); // "Hello"

System.out.println(trimmedStr); // Output: "Hello"

1. **substring()**

Returns a new string that is a substring of the original string.

**Example:**

String str = "HelloWorld";

String subStr = str.substring(0, 5); // "Hello"

System.out.println(subStr); // Output: Hello

**10.toLowerCase()**

Converts all characters in the string to lowercase.

**Example:**

String str = "Hello";

String lowerStr = str.toLowerCase(); // "hello"

System.out.println(lowerStr); // Output: hello

**11. toUpperCase()**

Converts all characters in the string to uppercase.

**Example:**

String str = "Hello";

String upperStr = str.toUpperCase(); // "HELLO"

System.out.println(upperStr); // Output: HELLO

**12. valueOf()**

Converts different types of values (like int, double, etc.) to a string.

**Example:**

int num = 123;

String str = String.valueOf(num); // "123"

System.out.println(str); // Output: 123

**Reading Input String from Keyboard**

Reading a string input from the user using Scanner.

**Example:**

import java.util.Scanner;

Scanner scanner = new Scanner(System.in);

System.out.println("Enter a string:");

String input = scanner.nextLine();

System.out.println("You entered: " + input);

**Converting Strings to Numbers**

Convert string to integer or double using parseInt() or parseDouble().

**Example for parseInt():**

String str = "123";

int num = Integer.parseInt(str); // 123

System.out.println(num); // Output: 123

**Example for parseDouble():**

String str = "123.45";

double num = Double.parseDouble(str); // 123.45

System.out.println(num); // Output: 123.45

**Useful Methods and Values in Class Integer and Class Double**

**Explanation:** Common methods like parseInt(), parseDouble(), MAX\_VALUE, MIN\_VALUE. **Example:**

String str = "123";

int num = Integer.parseInt(str); // 123

System.out.println(Integer.MAX\_VALUE); // Output: 2147483647

System.out.println(Integer.MIN\_VALUE); // Output: -2147483648

**Reading Formatted Input using Scanner**

**Explanation:** Reading different types of input (int, double, boolean) using Scanner. **Example for next():**

Scanner scanner = new Scanner(System.in);

System.out.println("Enter a word:");

String word = scanner.next();

System.out.println("You entered: " + word);

**Example for nextInt()**

Scanner scanner = new Scanner(System.in);

System.out.println("Enter an integer:");

int number = scanner.nextInt();

System.out.println("You entered: " + number);

**Example for nextDouble()**

Scanner scanner = new Scanner(System.in);

System.out.println("Enter a double:");

double number = scanner.nextDouble();

System.out.println("You entered: " + number);