Computer Programing in Java

Lecture 4
Java Strings

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Java Strings

- String greeting = "Hello";
- String Length

String txt = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";

System.out.println("The length of the txt string is: " + txt.length());

String Methods

- There are many string methods available, for example toUpperCase() and toLowerCase():

String txt = "Hello World";

System.out.println(txt.toUpperCase());   // Outputs "HELLO WORLD"

System.out.println(txt.toLowerCase());   // Outputs "hello world"

Finding a Character in a String

- The indexOf() method returns the index (the position) of the first occurrence of a specified text in a string (including whitespace):

String txt = "Please locate where 'locate' occurs!";

System.out.println(txt.indexOf("locate")); // Outputs 7

Java String Concatenation

- String Concatenation

The + operator can be used between strings to combine them. This is called concatenation:

String firstName = "John";

String lastName = "Doe";

System.out.println(firstName + " " + lastName);

- You can also use the concat() method to concatenate two strings:

String firstName = "John ";

String lastName = "Doe";

System.out.println(firstName.concat(lastName));

Java Numbers and Strings

- WARNING!

  Java uses the + operator for both addition and concatenation.

  Numbers are added. Strings are concatenated.

- If you add two numbers, the result will be a number:

  ```
  int x = 10;
  int y = 20;
  int z = x + y;  // z will be 30 (an integer/number)
  ```

- If you add two strings, the result will be a string concatenation:

  String x = "10";
  String y = "20";
  String z = x + y; // z will be 1020 (a String)

- If you add a number and a string, the result will be a string concatenation:

```
String x = "10";
int y = 20;
String z = x + y;  // z will be 1020 (a String)
```

Java Special Characters

Escape character	Result	Description
\'	'	Single quote
\"	"	Double quote
\\	\	Backslash