Input and Output

Learning objectives

‣ Input

‣ Output

Output to the console (System.out)

‣ System.out.println prints a line with a line break

‣ System.out.print prints a line without a line break

‣ System.out.format prints a line without a line break. It can be used to format the line and uses format specifiers (wildcards) that can be replaced with arguments

Explaining System.out.println

▸ System is a class

▸ out is a PrintStream object inside the System class that represents the standard output stream (the console)

▸ println is a method in the PrintStream object that prints a line to the standard output stream (the console)

▸ The PrintStream object also contains other methods like print and format

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Demo 1 - Output with System.out

‣ Using System.out.println

‣ Using System.out.print

‣ Using System.out.format

Input from the console (System.in)

‣ The Scanner object can be used to read input into the program

‣ To read input from the console the Scanner object is given a reference to System.in (the standard output stream) when it is created

‣ The Scanner object has different methods for reading input, like reading an entire line as a String, or reading types like int, long and boolean

‣ Scanner is a class in another package and needs to be imported

Demo 2 - Input with System.in

▸ Creating a Scanner object with System.in

▸ Importing the Scanner class

▸ Using methods in the Scanner object, like nextLine, next and nextInt

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Exercise 1 - Input and output

▸ Task 1: Create a program that asks for the name of the user (input) and then prints a greeting with the name (output), for example prints the greeting "Hello Andreas!" if the name "Andreas" is entered

▸ Task 2: Create a program that doubles numbers (that asks for a number and then prints out that number times two), use int as the type

▸ Task 3: Create a program that adds two int numbers (ask for one number, then ask for the other number, then print the sum of the two numbers)

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