Methods

ACTLEA
Active Learning

Learning objectives

- Methods
- Access modifiers
- Method overloading

Methods

- Methods are like functions within classes, defines the behavior of the program
- Methods have a name, a return type and possibly input arguments
- Methods can be static (belong to the class) or non-static (belong to the object)
- Methods also have an access modifier (private, default, protected, public)

Access modifiers

Access modifier	Within Class	Within Package	Outside Package and in Subclass	Outside Package
Private	Y	N	N	N
Default	Y	Y	N	N
Protected	Y	Y	Y	N
Public	Y	Y	Y	Y

Access modifiers

- Access modifiers apply to both methods and variables in the class
- (Local variables inside methods do not have access modifiers)

Demo 1 - Programming structure

- Methods
- Return types and Access modifiers

Overloaded methods

- Multiple methods with the same name but different parameters
- Input arguments can differ in number, type, or both
- The name of a method does not need to be unique
- The signature of a method needs to be unique (name and parameters)

Demo 2 - Overloaded methods

- Defining a varargs argument
- Using a varargs argument

Exercise 1 - FizzBuzz

- Reuse the FizzBuzz solution from before
- Still have the loop in the main method, but put the calculation of Fizz/Buzz/FizzBuzz/number in a separate method and call it from the loop
- The method should take an int as an input argument and return a String that can be printed to the console from the loop

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