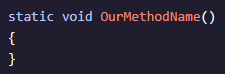
- Methods == Function – blocks of code that can be called elsewhere in a program  
- A reusable set of instructions that performs a specific task  
- Used to keep code organized, maintainable, and repeatable  
- Can also take inputs and produce outputs

**Calling Methods:**

- Methods are called by adding parentheses to the end of a method name  
- Methods accept inputs called arguments, and can return values

**Method Definition:**

 - PascalCase (every word first letter capitalized) is used to name methods

A screen shot of a computer

Description automatically generated - Code goes in-between curly braces

 - Code is executed in program by calling method name with ();

**Method Parameters:**

- Used to define a data type and how it will be used in a method  
- Essentially a placeholder for data that will be entered by customers

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Description automatically generated

- Multiple parameters can be defined within a single method definition

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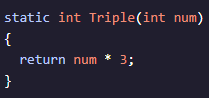
Description automatically generated

- When a method is called, variables put into the ( ) are called arguments



**Return Statement:**

- Used when we want a method to return a value  
- Data type must be declared before value

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**Method Overloading:**

- Methods that have the same name but each has a unique set of parameters (known as ***Method Overloading***)  
- Each ‘version’ is known as ***overload***- Useful when we want the same method to have different behavior based on its inputs



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**-** Can overload a method by defining two methods with the same name but different sets of parameters

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**Out Parameters:**

- Useful when we need to return multiple values

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**Optional Parameters:**

- Used to assign default values to parameters so if a user doesn’t input one it automatically outputs one  
- Defined in method body by using the = sign  
- Can have an unlimited number of optional parameters

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**Named Arguments:**

- **Positional Arguments** correspond to the order that parameters are defined in

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Description automatically generated  
**- Named arguments** allow us to specify which parameter a given argument should be assigned to.

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Description automatically generated with medium confidence

- Can also mix named and positional arguments but named must come first

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