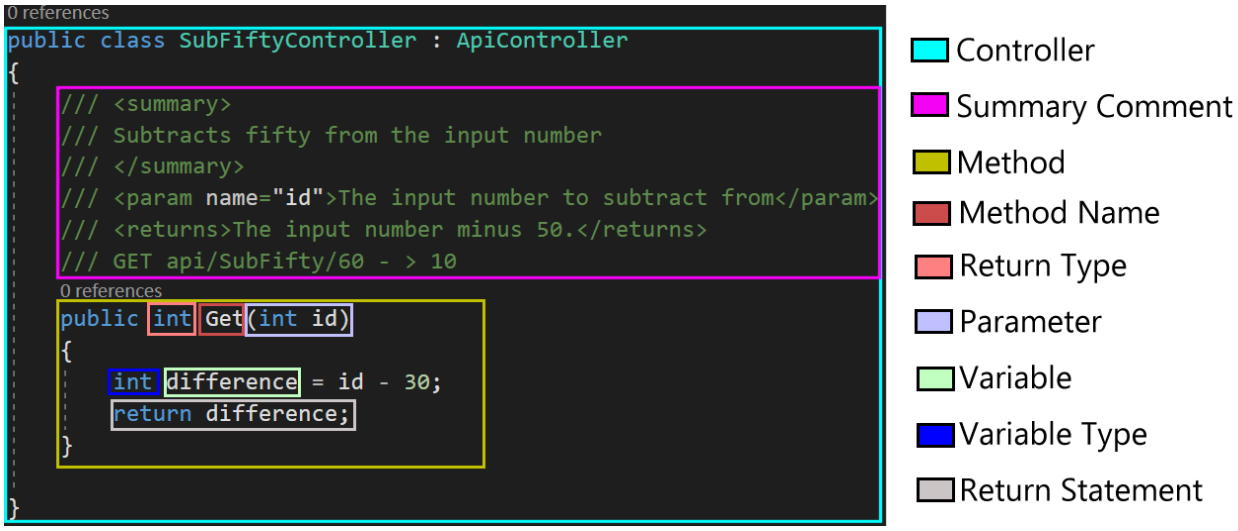
C# Terminology

A quick lookup guide for terminology related to C# code and methods.



Controller

A type of file which is organized into the /Controllers folder of a project. This file will contain instructions for how a web server should respond to different HTTP requests. The controller may contain several methods; each dealing with one kind of HTTP request.

Method

A set of instructions to describe what the web server should do when receiving a particular HTTP request. These instructions usually consist of one or more inputs and an output. The method body is between curly braces { }, otherwise known as a ‘code block’. In this example, there are two instructions in the method body.

Summary Comment

A non-code element which is written above the method. It contains a qualitative description of what the method is supposed to do. It also contains an example of how to call the method (a GET request to api/SubFifty/60 should yield a response of 10).

Method Name

The name of the method. In this example, the method name is “Get”. By convention, the web server will know that this method should be executed for an HTTP GET request. Each method name must be unique within the controller.

Return Type

The expected data type output for this method. In this example, subtracting 50 from an integer should always yield an integer. So the expected output is an integer.

Parameter

The expected data type for the input to this method. In this example, we are expecting one integer input. The input will then be stored as a variable called ‘id’. A method can have many parameters. In this example, sending a GET request to api/SubFifty/60 will make the value of id equal to 60.

Variable

A piece of information in the program. We can get information from the variable and set information to the variable. In this example, the variable ‘difference’ is computed by accessing the variable of ‘id’ and subtracting 50.

Variable / Data Type

Describes the kind of information to be stored in the variable. Here are some data types:

- (int) Short for integer. A whole number that can be positive or negative or 0.
- (string) A sequence of characters enclosed in double quotations.
- (char) A single character enclosed in single quotations.
- (decimal) A number that can be positive or negative or 0.

In C#, you must declare what kind of information you wish to work with before creating (declaring) a new variable. In this example, we are declaring the integer variable called ‘difference’.

Return Statement

A special instruction in a method which outputs the value and terminates the method. No instructions after the return statement will be executed.