

# USING THE ONLINE API DOCUMENTATION

The documentation of the Application Programming Interface (API) is available online. To access it, you can Google: *Java API documentation* and click the link that begins with `docs.oracle.com/javase`, such as the one shown below:

<http://docs.oracle.com/javase/7/docs/api/>

To quickly locate the documentation on a particular class, you can Google the class's name and then click the link to the class's documentation. The following link was displayed after Googling *Java Math class*:

<http://docs.oracle.com/javase/7/docs/api/java/lang/Math.html>

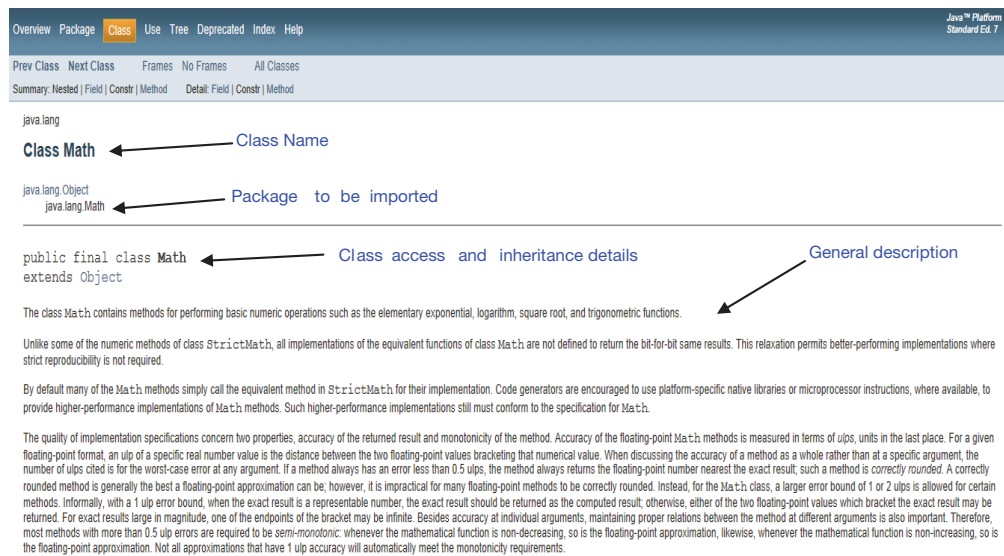
Clicking this link displays the information shown in Figure G.1, which is typical of the format of the documentation for any class. As shown in the figure, the class name is at the top of the documentation. Below it is the package that is imported into a class to gain access to the API class and its methods. This package name can be copied from the documentation and pasted into the class's file just before its class heading. It is preceded by the keyword `import` and followed by a semicolon.

Below the package name is the specification of the class's access and inheritance details. In the case of the `Math` class, this information indicates that the class's access is public, the class is final (which means it cannot be extended as a parent class), and its parent class is the class `Object`. Below that is a general description of the class.

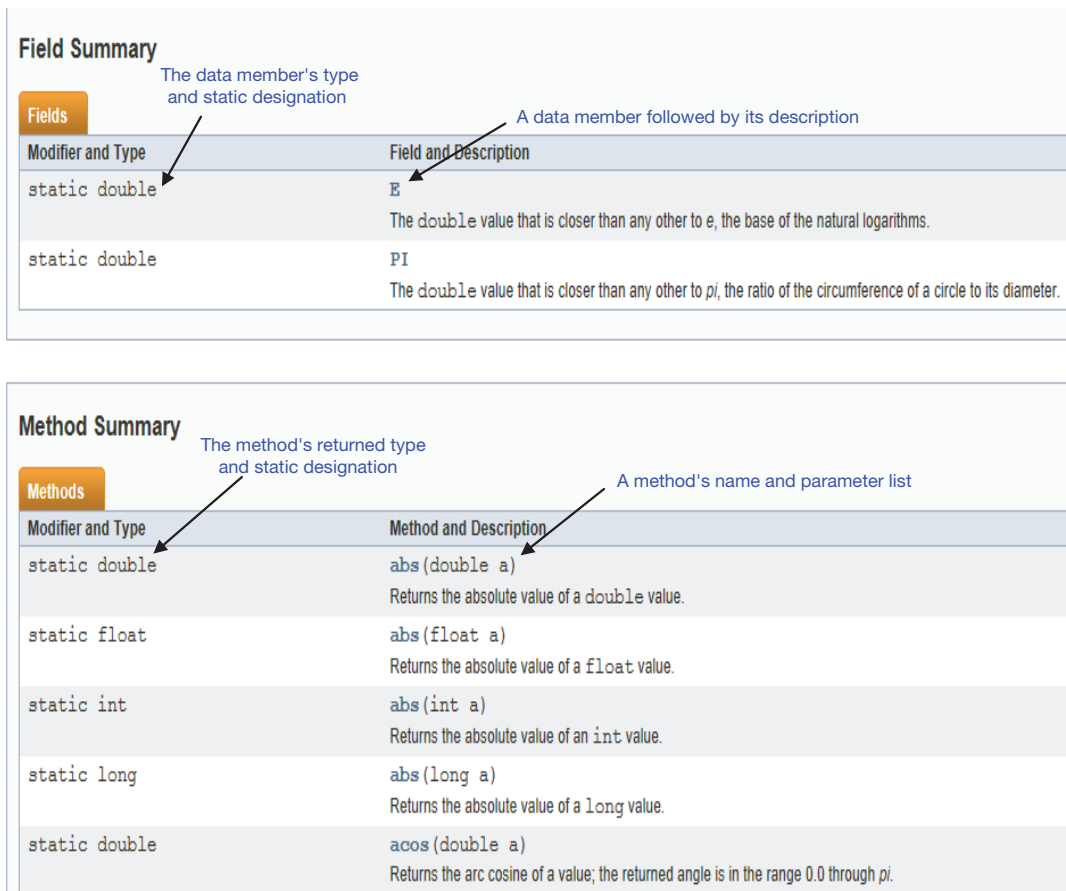
Below the general descriptive information is a *Field Summary* (Figure G.2), which is a tabulation of the name and description of all of the data members contained in the class. This is followed by a *Method Summary*, which is a tabulation of the names of each method in the class and their parameter list followed a brief description of the method's functionality.

To the left of each data member's name in the Field Summary is its type, which may be preceded by the key word `static`. Static data members are accessed by preceding their name with the name of the class followed by a dot. To the left of each method's name in the Method Summary is the method's returned type, which may be preceded by the key word `static`. Static methods are invoked by preceding their name with the name of the class followed by a dot. Non-static methods are invoked by preceding their name with the name of an instance of the class followed by a dot.

More detained documentation on a data member or a method can be displayed by clicking the name of the data member in the Field Summary or the name of the method in the Method Summary. Figure G.3 was displayed when the method name `acos`, shown at the bottom of Figure G.2, was clicked.



**Figure G.1**  
The top portion of the online documentation of the `Math` class.



**Figure G.2**  
The partial Field Summary and Method Summary of the API `Math` class.

**acos**

```
public static double acos(double a)
```

Returns the arc cosine of a value; the returned angle is in the range 0.0 through  $\pi$ . Special case:

- If the argument is NaN or its absolute value is greater than 1, then the result is NaN.

The computed result must be within 1 ulp of the exact result. Results must be semi-monotonic.

**Parameters:**

**a** - the value whose arc cosine is to be returned.

**Returns:**

the arc cosine of the argument.

**Figure G.3**

Detailed documentation of the Math class's **acos** method.

