

May the Force of Javadoc be with You

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Why Javadoc?

- Your friend needs to reuse your wonderful Java code
- You don't want him/her to see your implementation
- Let's give him/her the class file
- Your friend asks you, "How to use your Java class?"
- [We need documentation!](#)

What is Javadoc?

- A utility of Java that generates [API documentation](#) as HTML pages from [Java source file](#)
- A standard for documenting Java classes
- Included in Java JDK/SDK from Sun Microsystems

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What does Javadoc Look Like?

Package	Class	Tree	Deprecated	Index	Help
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PREV CLASS	NEXT CLASS	FRAMES	NO FRAMES	All Classes
SUMMARY: NESTED FIELD	CONSTR METHOD	DETAIL: FIELD	CONSTR	METHOD

Class Circle

java.lang.Object
└ **Circle**

```
public class Circle
extends java.lang.Object
```

Circle is a class representing the mathematical concept of circle. This class includes the following operations:

- Increase the size
- Decrease the size
- Report the circumference

This class is written for the Java tutorials of SE2AA4 (Winter 07).

Constructor Summary
Circle() The diameter of the circle is 10cm by default.
Circle(double d)

How to Make Javadoc?

- Write comments in your code following a specific format
- Run javadoc
- Voila! You have the documentation of your Java class

Format of Javadoc

- Comments must be included using `/** */`
(Note the **two asterisk** at the beginning of the comment)
- Some HTML tags are recognized
 - `<p>` – paragraph
 - `` – unordered list
 - `` – list item
- `@` indicates a Javadoc tag
(Don't panic. We will talk about Javadoc tags in a moment!)

Circle Class Revisited

- The beginning of `Circle.java` now contains

```
/**
 * Circle is a class representing the mathematical concept of circle.
 * This class includes the following operations:
 * <ul>
 *   <li>Increase the size</li>
 *   <li>Decrease the size</li>
 *   <li>Report the circumference</li>
 * </ul>
 * <p>
 * This class is written for the Java tutorials of SE2AA4 (Winter 07).
 *
 * @author Clare So
 */
```

Circle Class Revisited

- Here we include the description of the constructors in the comments

```
public class Circle {

    private double diameter; // The diameter of the circle

    /**
     * The diameter of the circle is 10cm by default.
     */
    public Circle() { diameter = 10.0; }

    /**
     * The circle can be initialized of other sizes.
     *
     * @param d diameter of the new circle
     */
    public Circle(double d) { diameter = d; }
```

Circle Class Revisted

- The Javadoc tags `@param` and `@return` describe the parameters and return type of the Java methods

```
/**
 * Make the circle bigger
 *
 * @param factor Centimetres to be added to the diameter
 * @return updated diameter
 */
public double grow(double factor) {
    diameter = diameter + factor;
    return diameter;
}
```

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Using Javadoc in Command Line

```
[clare@dimsum-cart tutorials]$ javadoc Circle.java
Loading source file Circle.java...
Constructing Javadoc information...
Standard Doclet version 1.4.2-02
Generating constant-values.html...
Building tree for all the packages and classes...
Building index for all the packages and classes...
Generating overview-tree.html...
Generating index-all.html...
Generating deprecated-list.html...
Building index for all classes...
Generating allclasses-frame.html...
Generating allclasses-noframe.html...
Generating index.html...
Generating packages.html...
Generating Circle.html...
Generating package-list...
Generating help-doc.html...
Generating stylesheet.css...
[clare@dimsum-cart tutorials]$
```

Some Javadoc Tags

- `@param` – Parameters
(More than one `@param` can be used for the same method)
- `@return` – Object returned by the method
- `@exception` and `throws` – Exceptions that can be generated by the method
- `@author` – Author of the class
- `@version` – Version of the class
- `@deprecated` – Indicates deprecated methods