

Javadoc comments and javadoc

Javadoc stands for Java documentation. A Javadoc comment has the form

```
/** write your comment here <br>
 * and here <br>
 * and here –add more lines if you want.*/
```

Each method and class in Java is generally *preceded* by such a Javadoc comment that gives the specification of that method or information about the class. When you hover your mouse over the name of a method or class, that Javadoc comment generally appears as a note for you, helping you understand what that name or class is for. Also, you can create a webpage, as discussed below, that contains all these Javadoc comments, giving you the specification of the class.

Above, you see the html tag `
`. That is a line-break. We expect that you installed a file of Eclipse preferences for formatting. Some of these have to do with formatting Javadoc comments. Put the tag `
`. Where you want a line break. If you do not put those tags, when your program is saved, all the lines will be run together. For example, this

```
/** write your comment here <br>
 * and here <br>
 * and here –add more lines if you want.*/
```

will be change to this:

```
/** write your comment here and here and here –add more lines if you want.*/
```

Javadoc webpages

In Eclipse, suppose you have a project selected as in the image to the right and you want to create a web page that describes classes PhD and PhDTest. Use menu item *Project -> Generate Javadoc*.

In the window that opens, shown to the right below, you should see a check mark next to the project (2018sp_a1). That indicates that Javadoc will be created for all the .java files in the project.

You see that Javadoc will be created only for public classes.

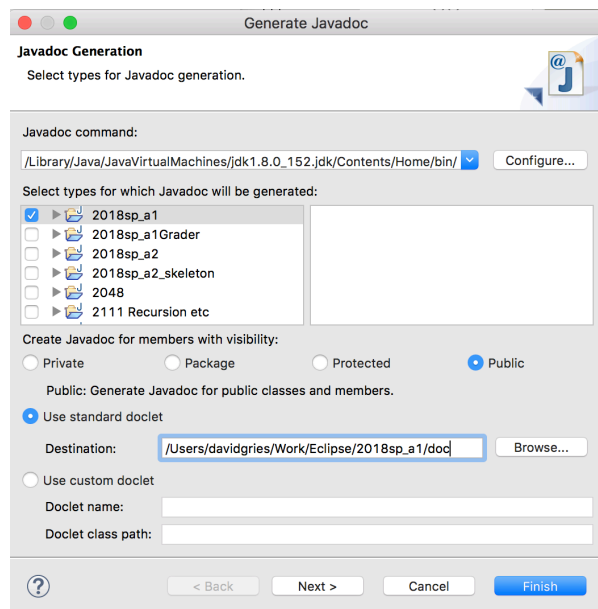
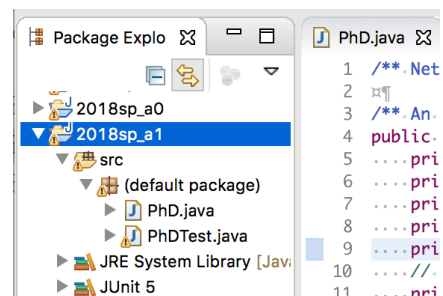
The Destination field should show that the documentation will be created in the project (in this case, 2018sp_a1) in a new directory named *doc*. If it doesn't, you may have to browse to navigate to that project and put in */doc*.

Click button *Finish*. A window may pop up asking whether you want to use the chosen destination folder. Click button *Yes To All*.

You may get some warnings in the Eclipse Console. Disregard them.

The project now contains a directory *doc*, as shown to the right. Expand that directory and double-click file *index.html*. You will see the Javadoc open! Look at it. It looks just like the documentation in the Java API documentation. Java created all that documentation using a Javadoc command.

If you wrote appropriate Javadoc specifications for you methods, they will have been extracted into this



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documentation.

You can also open it in your favorite browser by double-clicking *index.html* in a Finder window (Mac) or Explorer window (PC).

What if button **Finish** is grayed out and I can't click it?

If button *Finish* is grayed out, that usually means that the location on your hard drive of command *javadoc* is not known. In the big *Generate Javadoc* window above, look at field *Javadoc command*. It may not contain anything, or what it contains is wrong. You have to fix it.

The application *Javadoc.exe* should reside in a directory called *bin* on your hard drive. Here is what the path to directory *bin* looks like on a Macintosh.

```
/Library/Java/JavaVirtualMachines/jdk1.8.0_152.jdk/Contents/Home/bin
```

For a Windows machine, the path is something like (this example shows Java 7):

```
C:\Program Files\Java\jdk1.7.0_21\bin
```

For linux users, the path may look like this:

```
/usr/lib/jvm/jdk1.8.0_21/bin
```

Look on your hard drive for such a path. You may have several jdk's. You will have to choose which one to use. Then put such an address into field *Javadoc Command* in the window above. That should fix the error for this time.

A larger problem

A larger problem may be that Eclipse does not have a valid path to an installed JRE elsewhere. This happened once when I deleted several old java versions, so the one that Eclipse knew about was deleted.

Knowing a path to that bin directory as described above, do the following:

Step 1. Use Eclipse menu item *Project -> Properties*. This opens a window. In the left column, select *Java Build Path* and then pane *Libraries*. Expand directory *JRE System Library*, then expand directory *rt.jar*. Finally, select *Source attachment: src.zip ...* The window should look something like that below (on a Macintosh).

Step 2. Look carefully at the path in the selection. It should look like your path as described at the bottom of the previous page. If not, click button *Edit* to fix it.

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