CS2334 Lab2

Eclipse And Debugging Survival Guide

Yu-Hsin Li and Mark Woehrer

Fall 2008

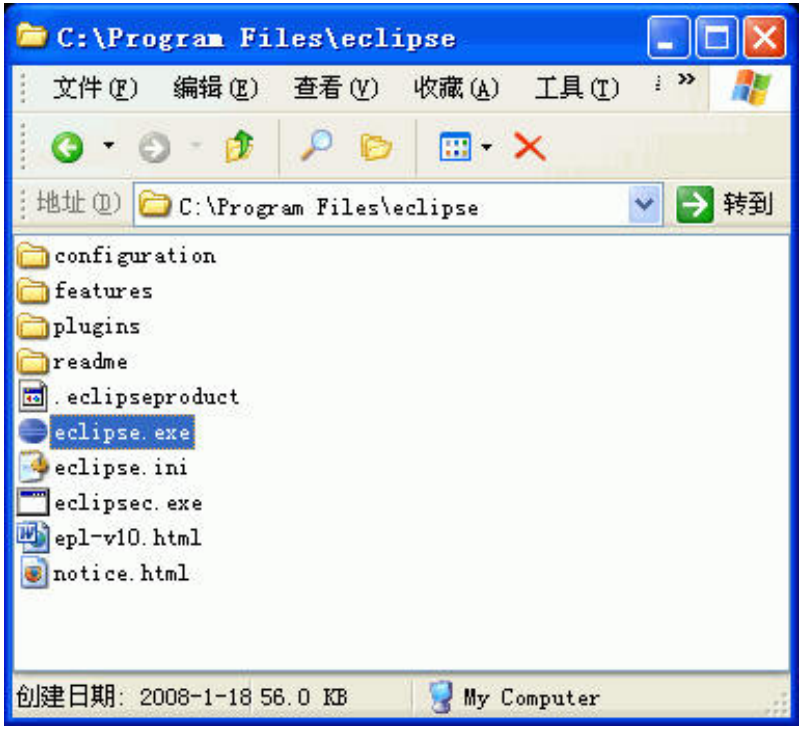
Basic Eclipse Tutorial

Basic Eclipse Debugging

Basic Eclipse Tutorial

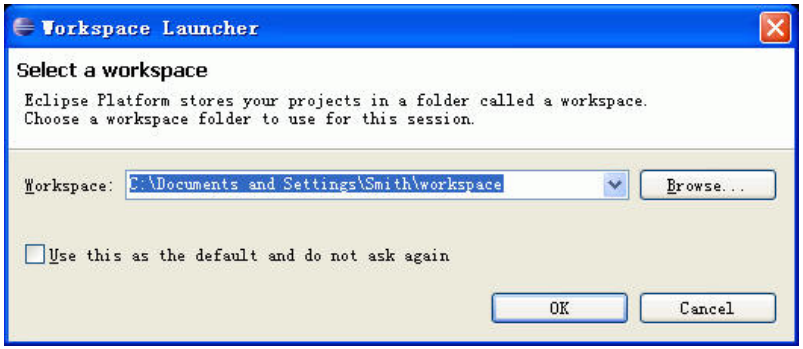
Start

- Extract the file eclipse-java-ganymede-win32.zip to C:\Program Files.
- Go to C:\Program Files\eclipse.
- Double click on eclipse.exe.

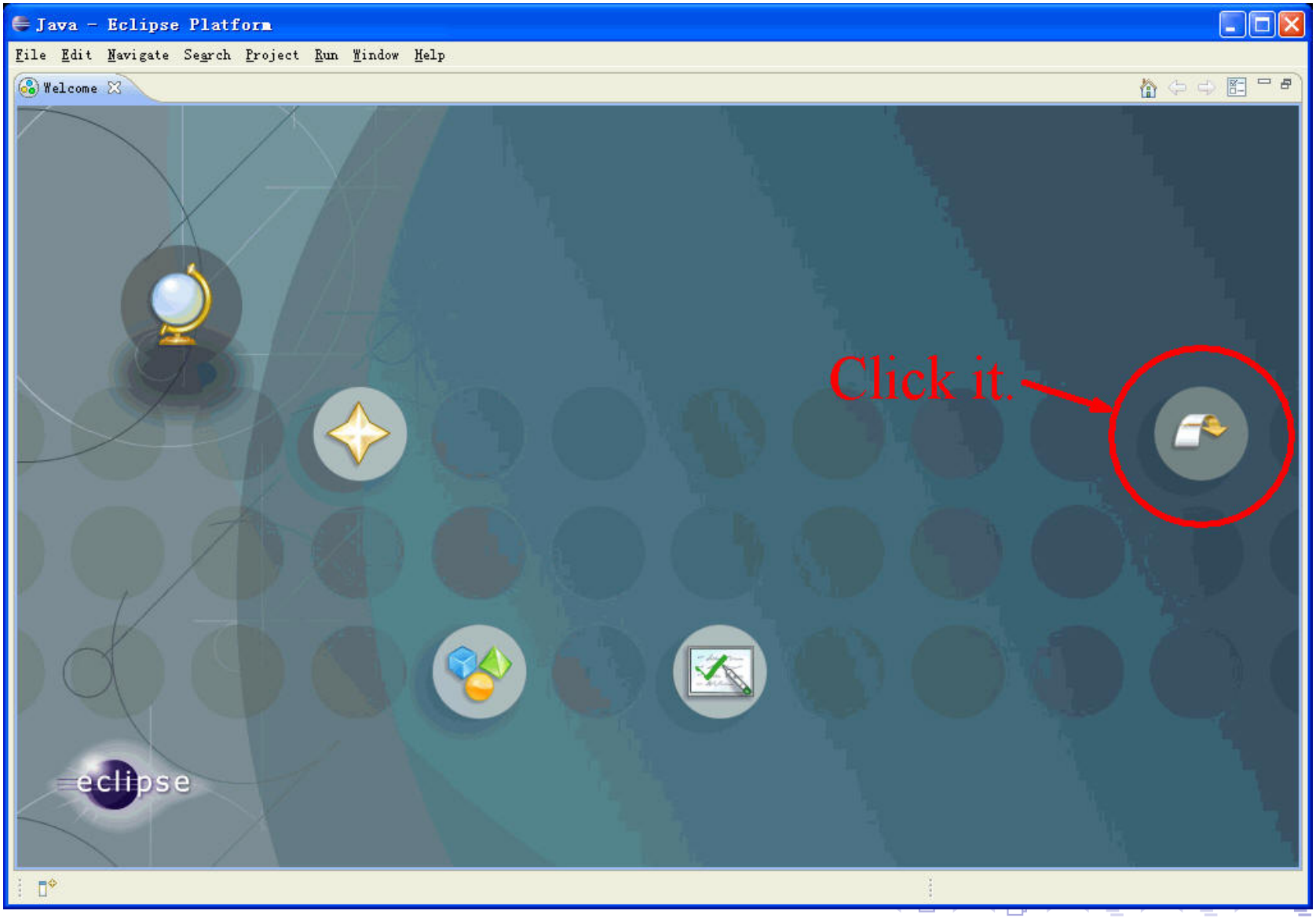


Choose a Workspace

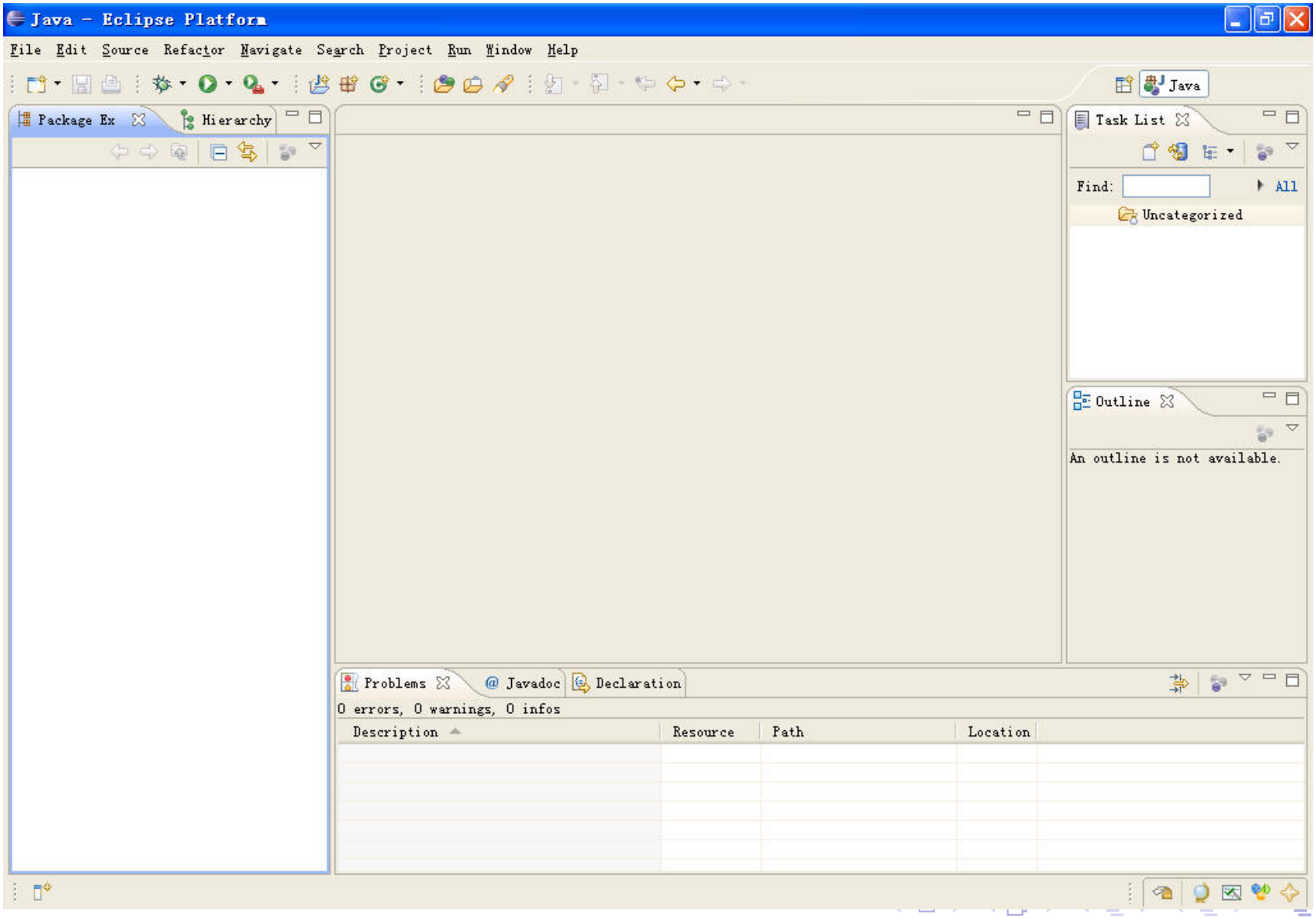
- A workspace is a folder/directory in your hard drive.
- Each workspace houses a collection of projects.
- Click OK for the default one.



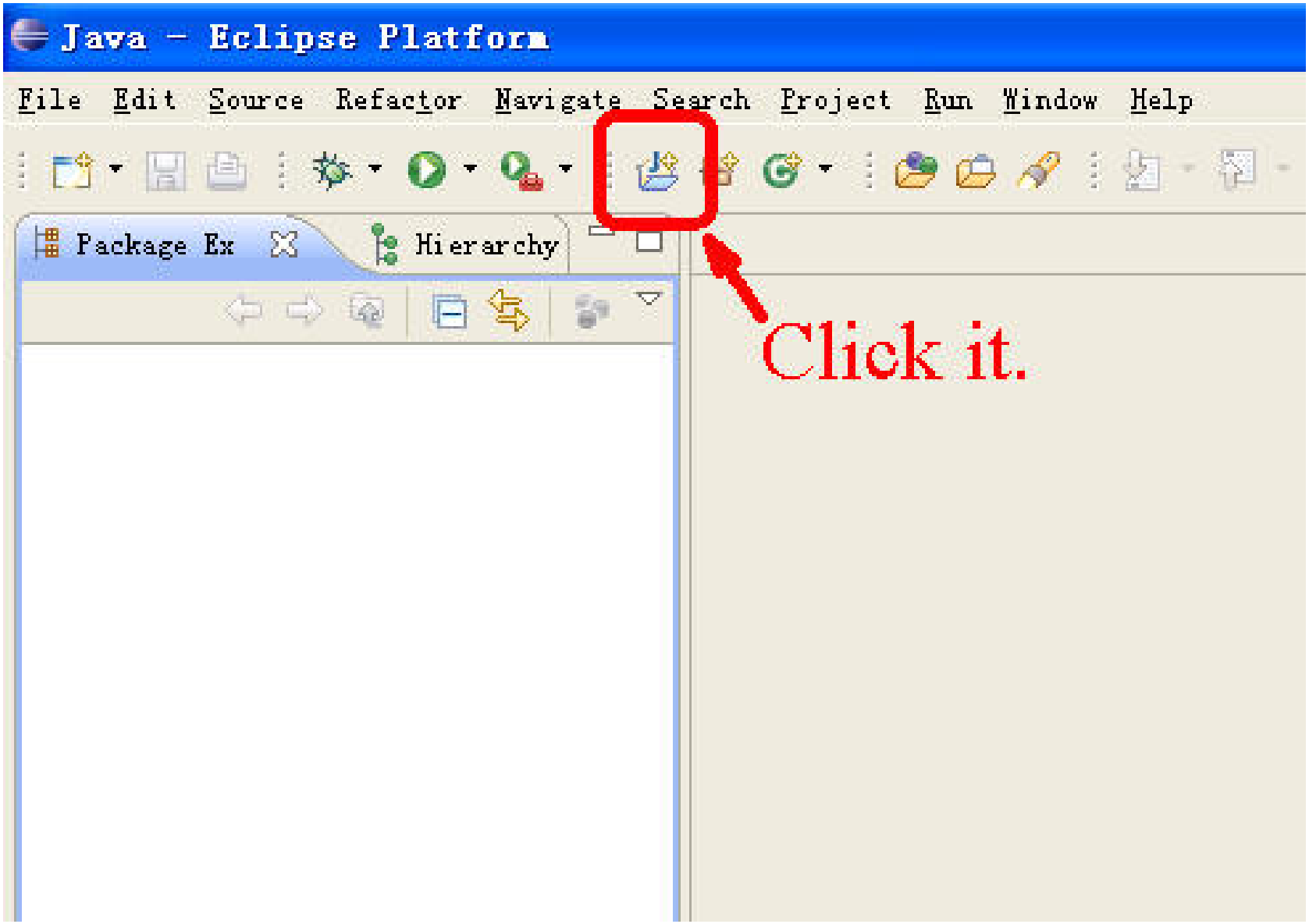
The Welcome Screen



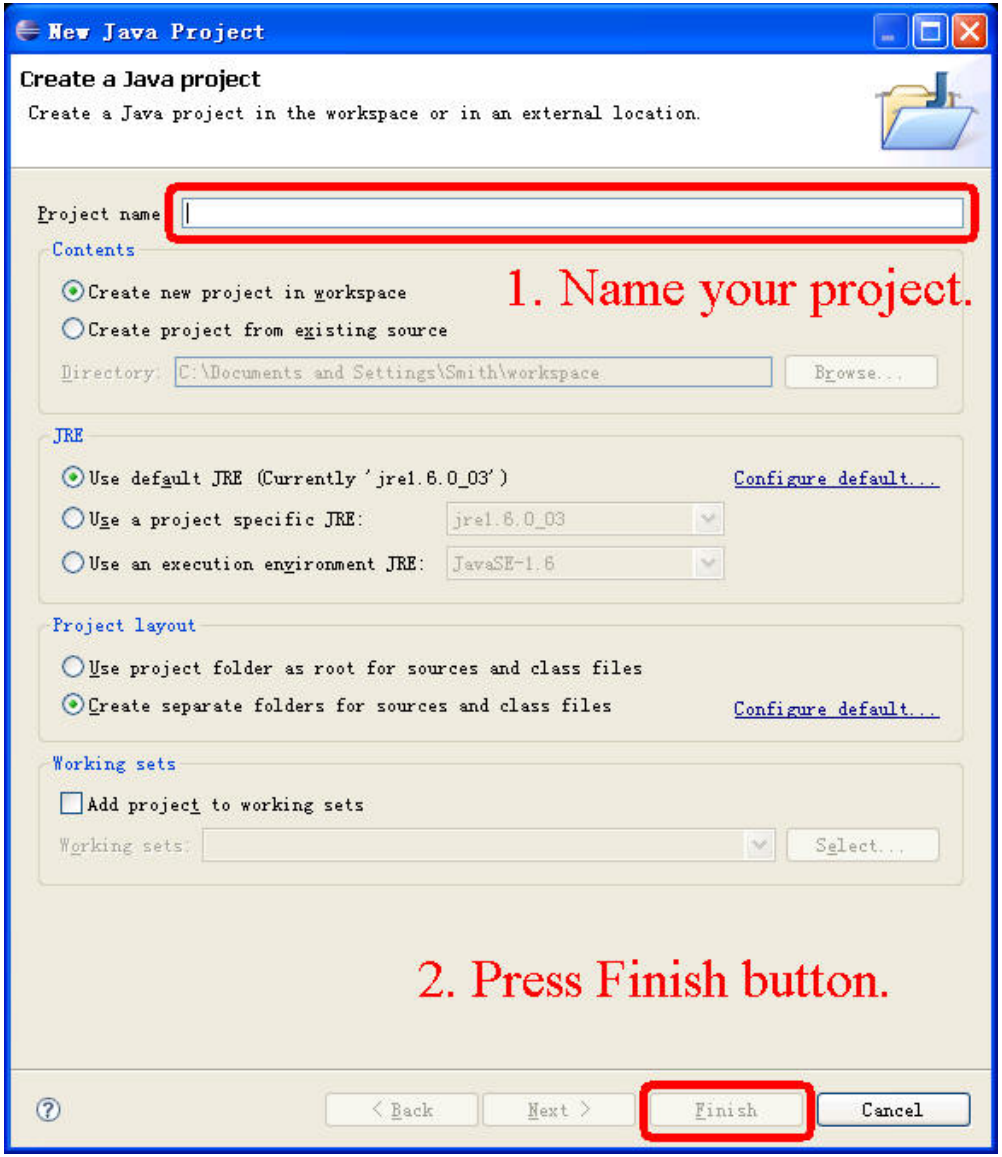
The Main Screen



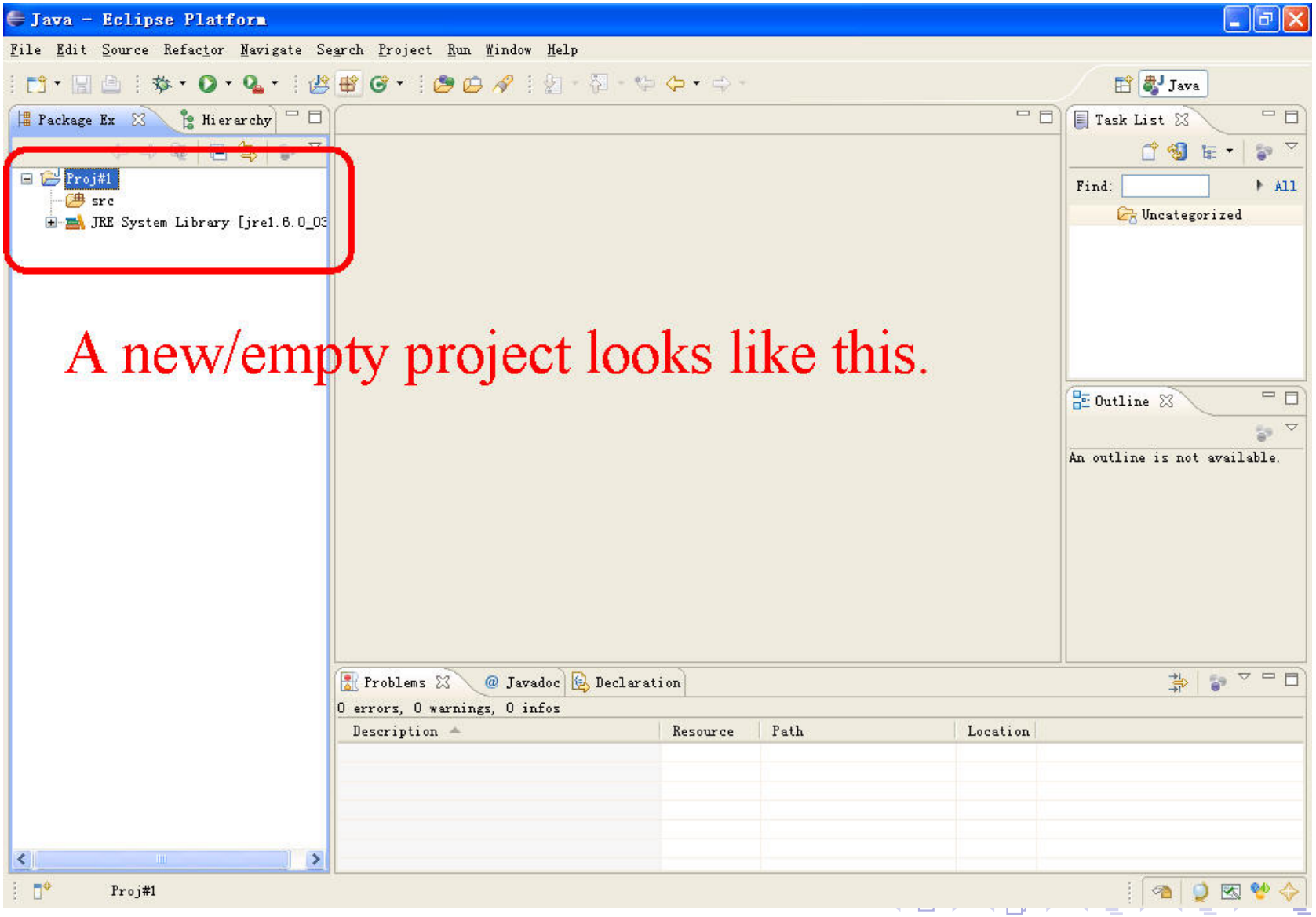
Create a New Project



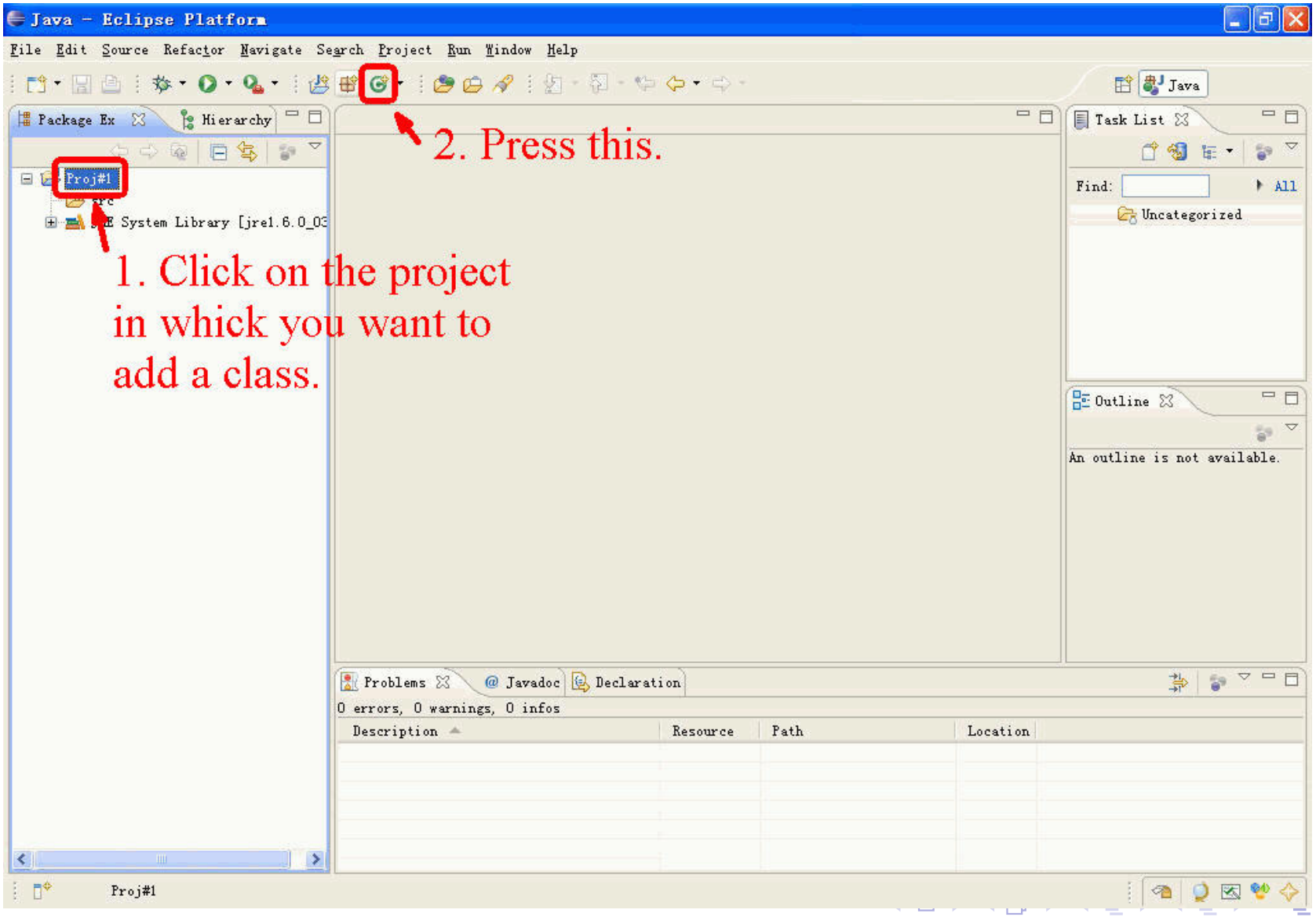
Create a New Project (Cont'd)



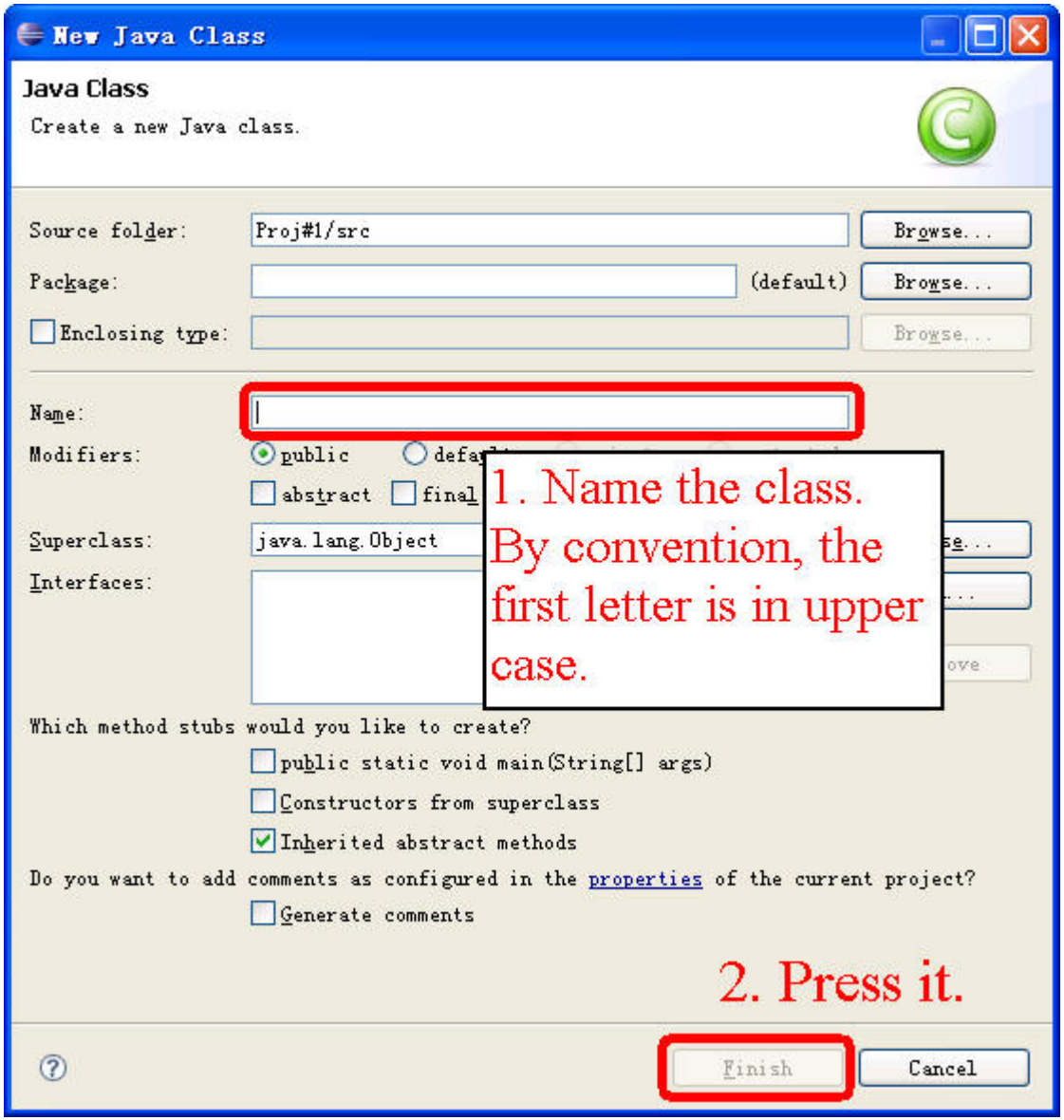
Create a New Project (Cont'd)



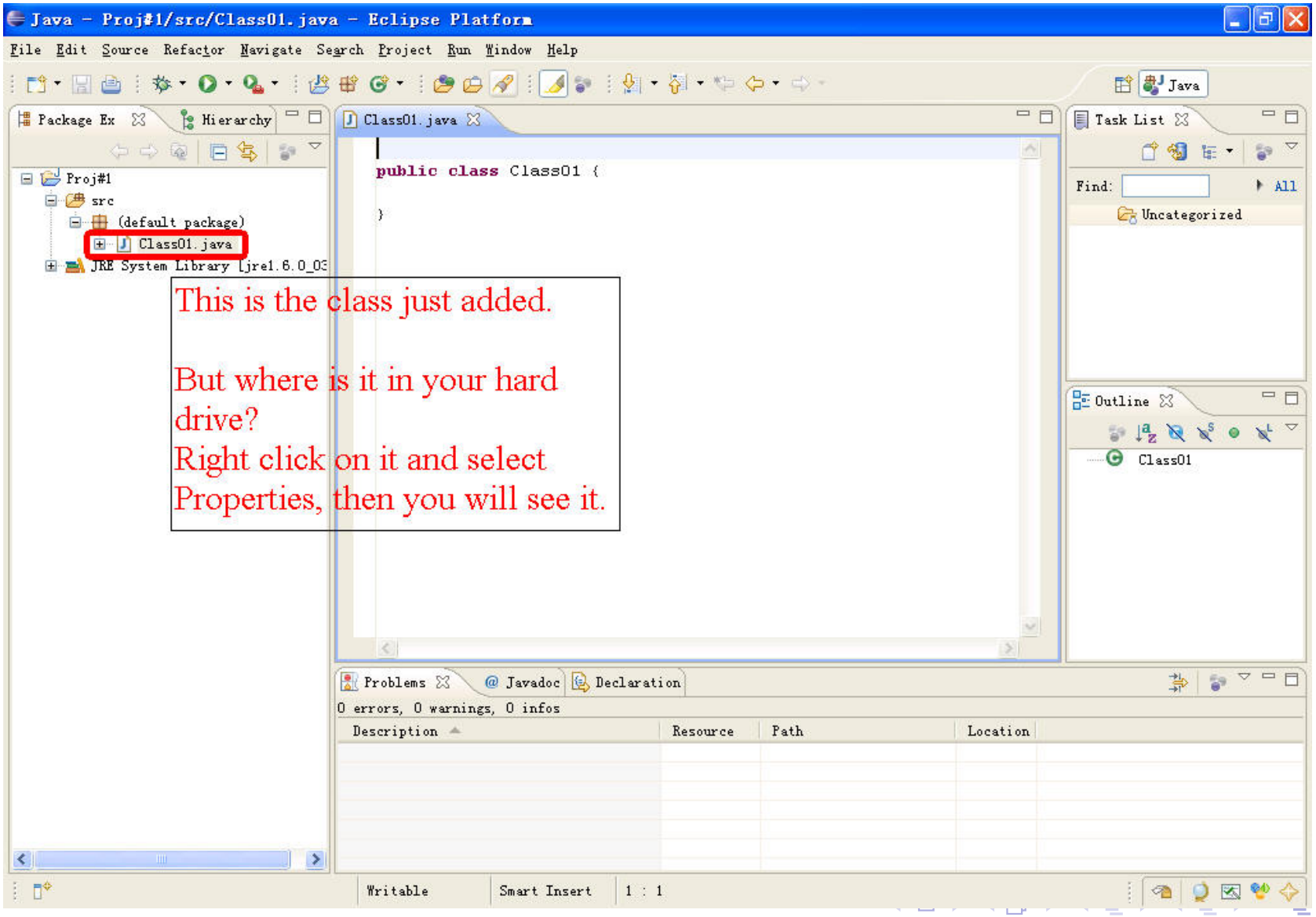
Add a Class to a Project



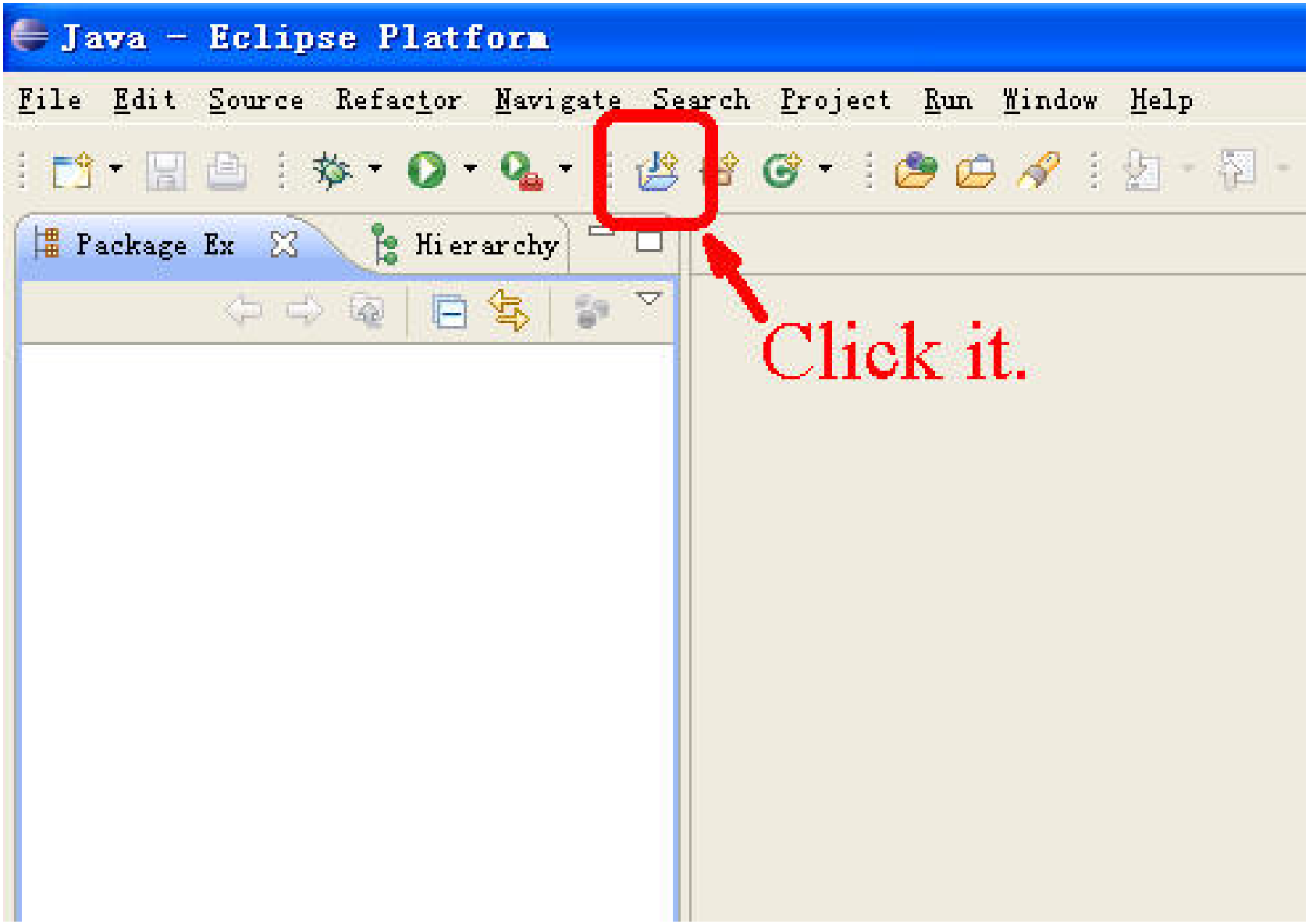
Add a Class to a Project (Cont'd)



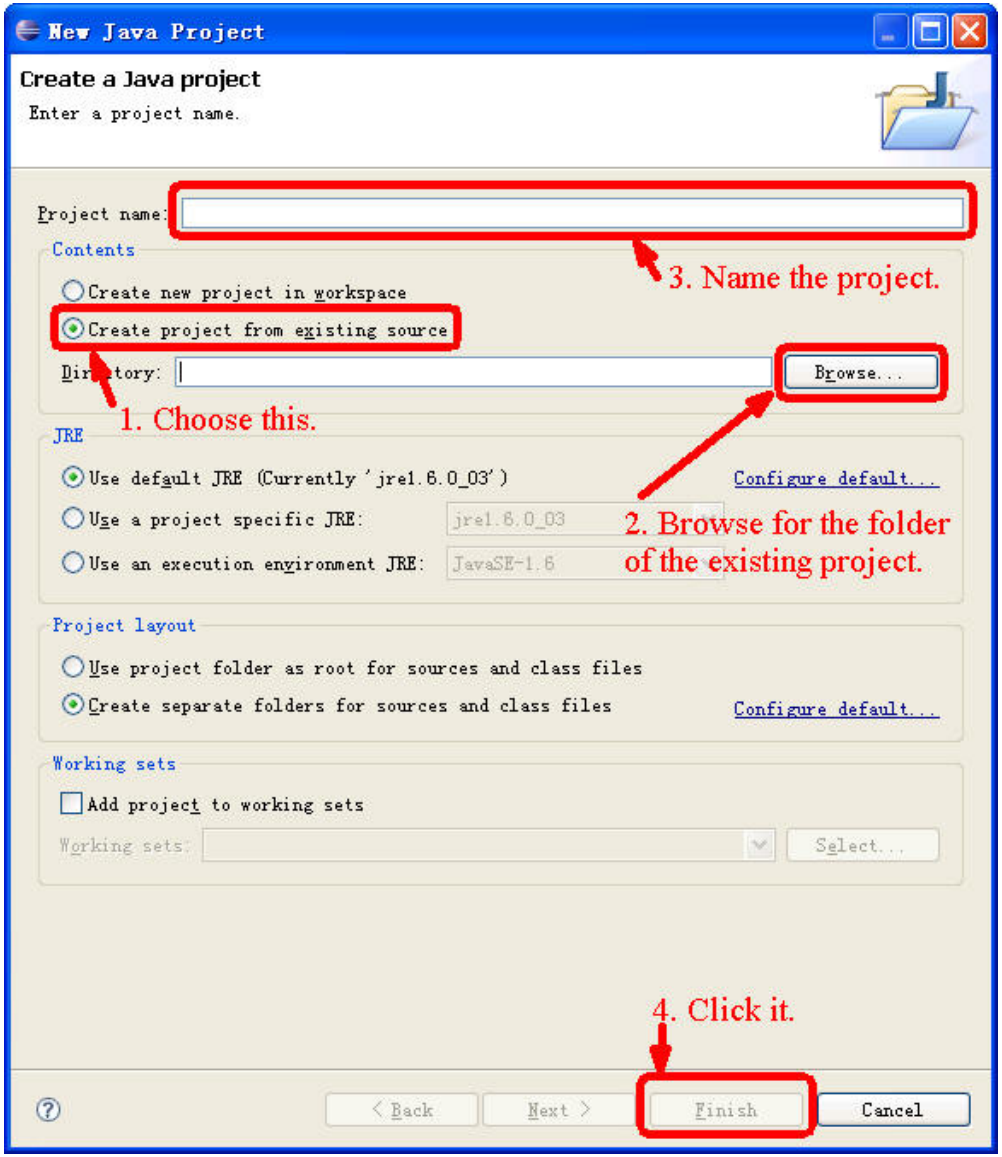
Add a Class to a Project (Cont'd)



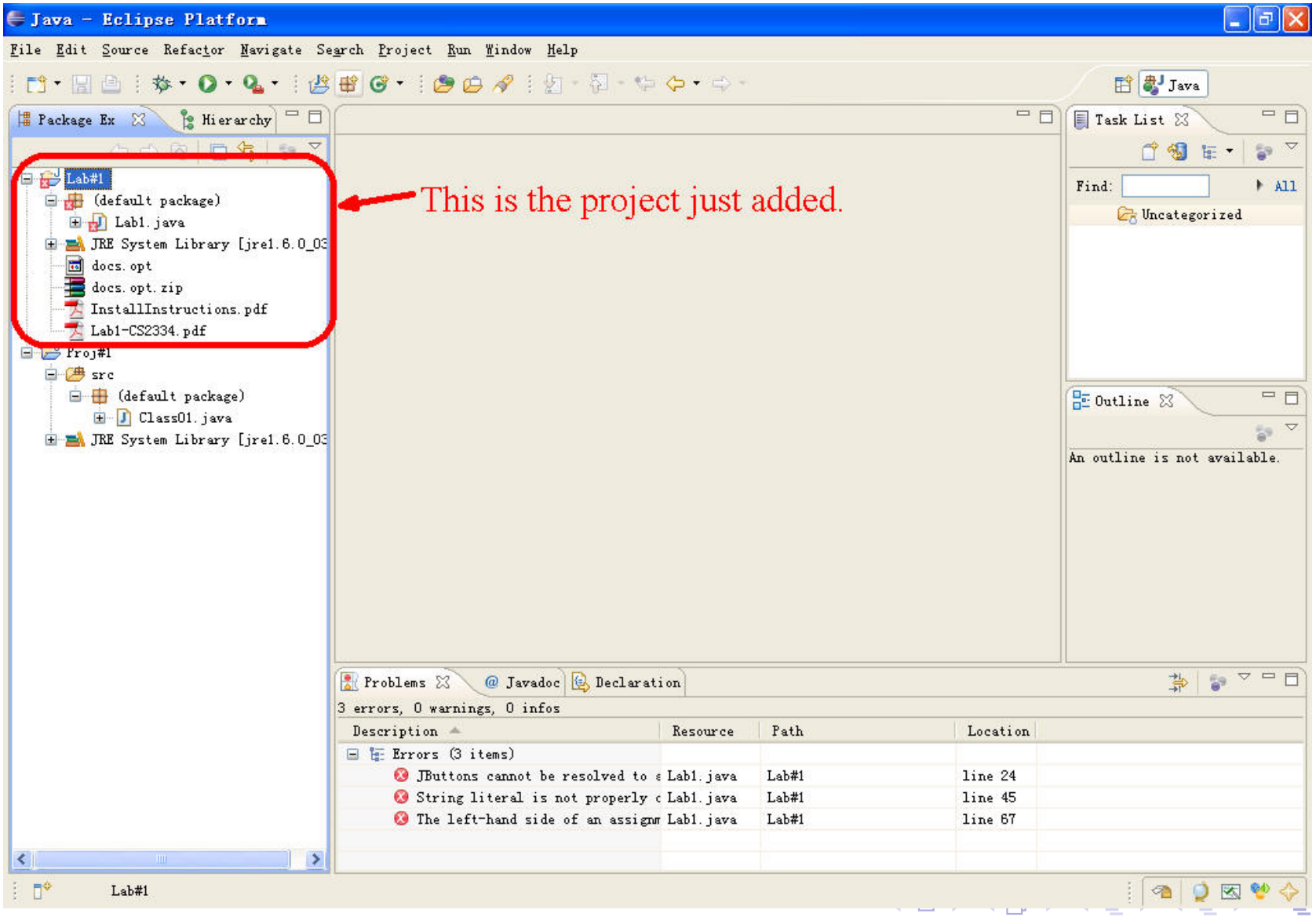
Add a Directory As a New Project



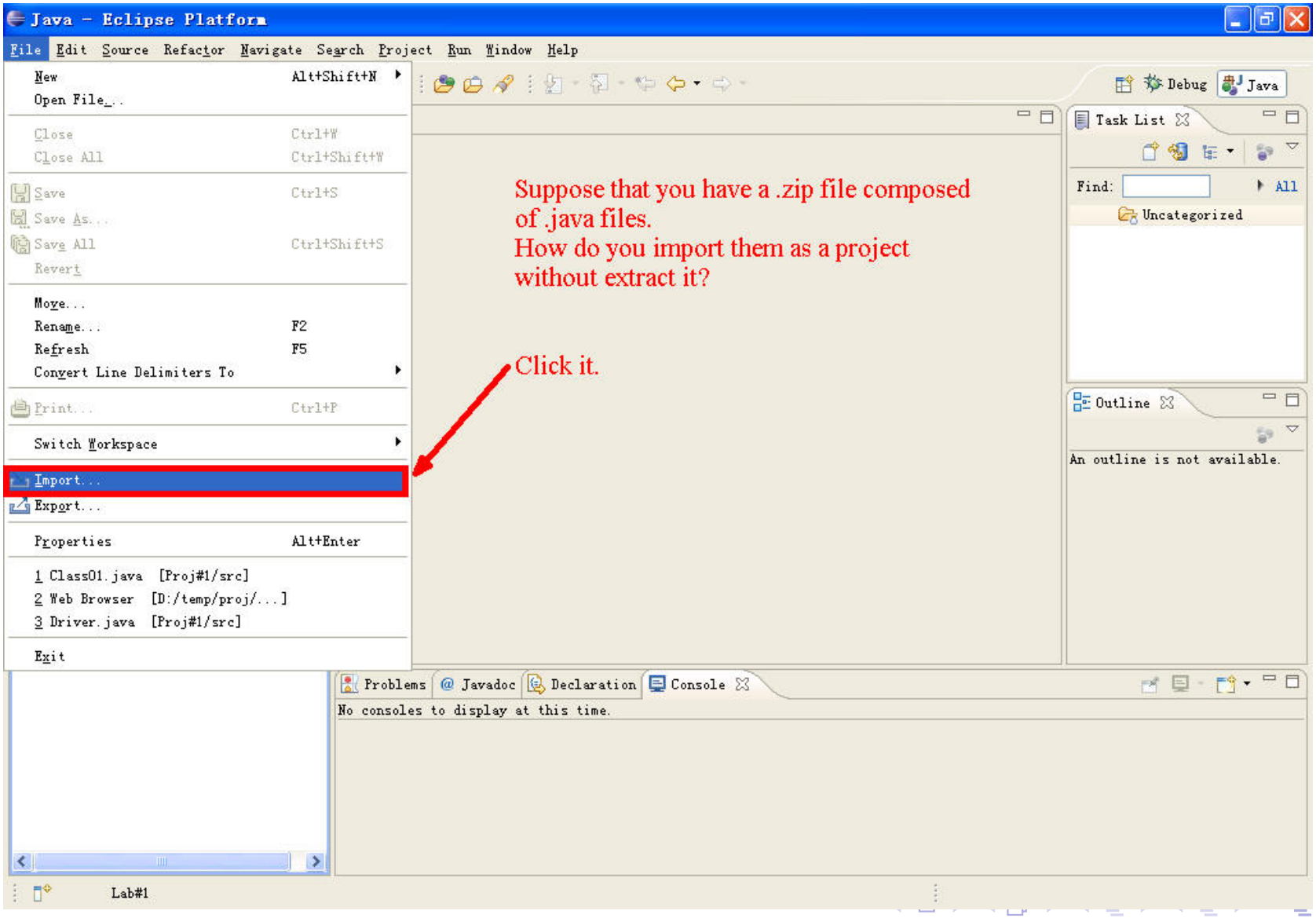
Add a Directory As a New Project (Cont'd)



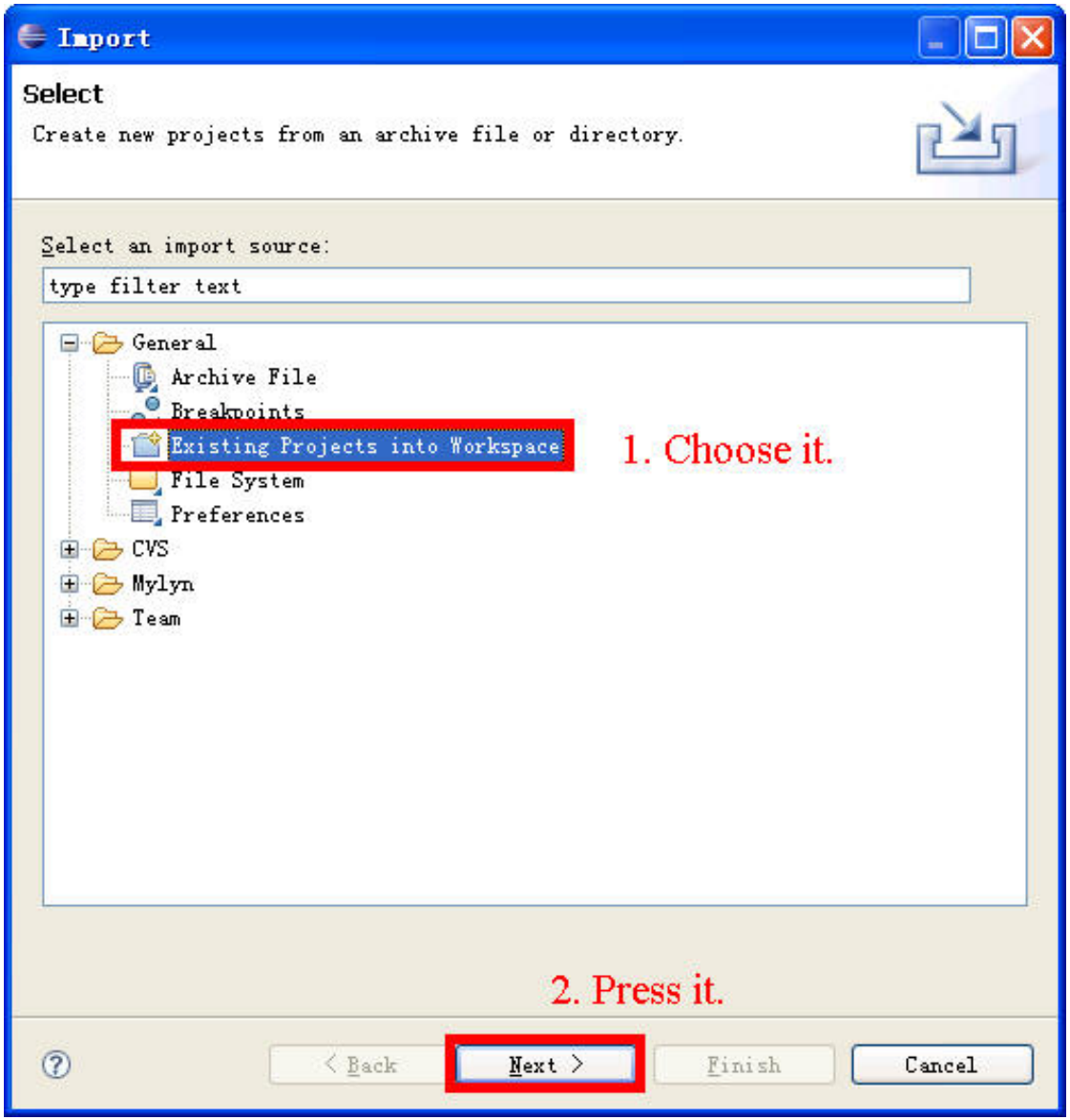
Add a Directory As a New Project (Cont'd)



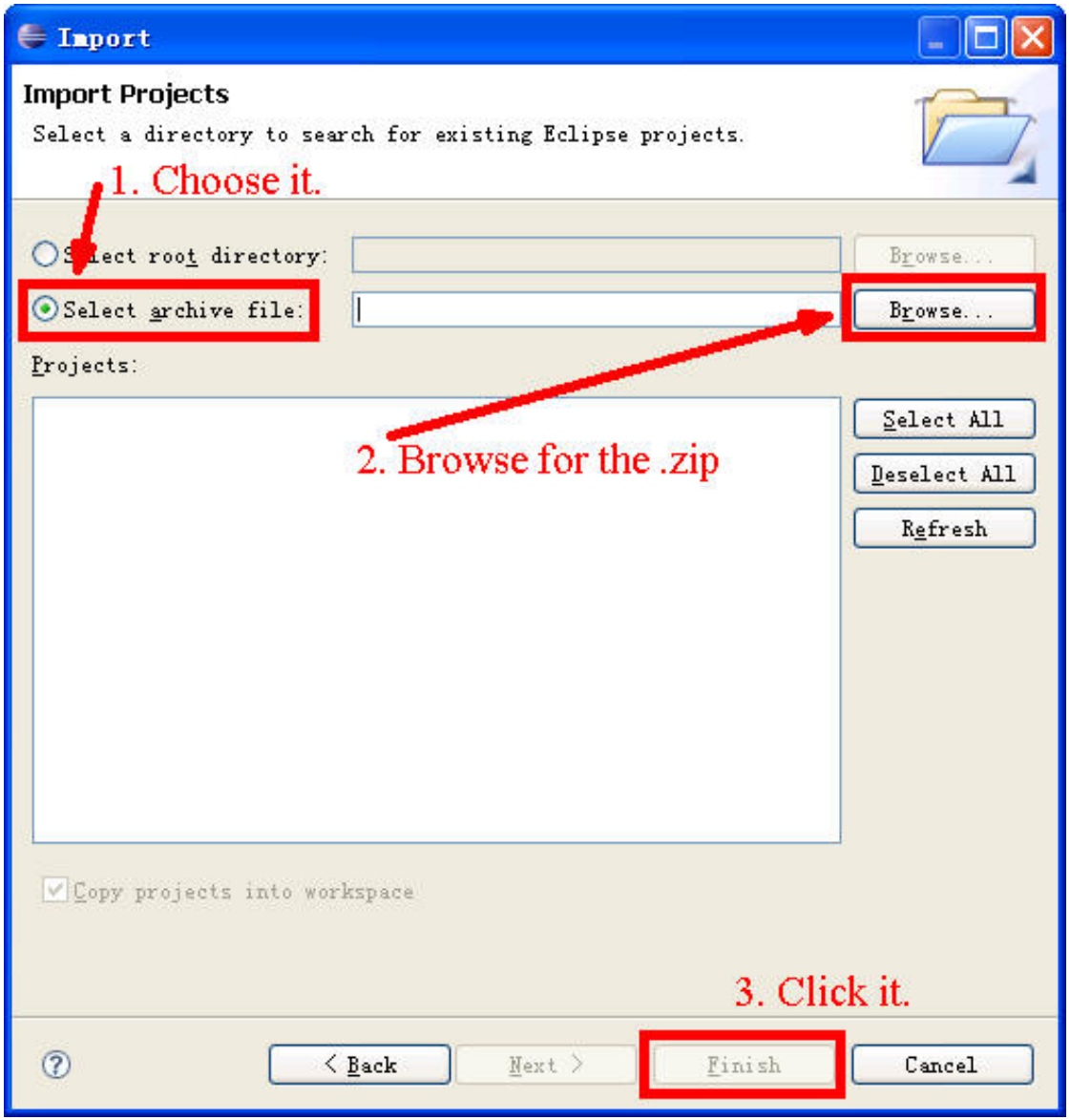
Add a .zip File As a New Project



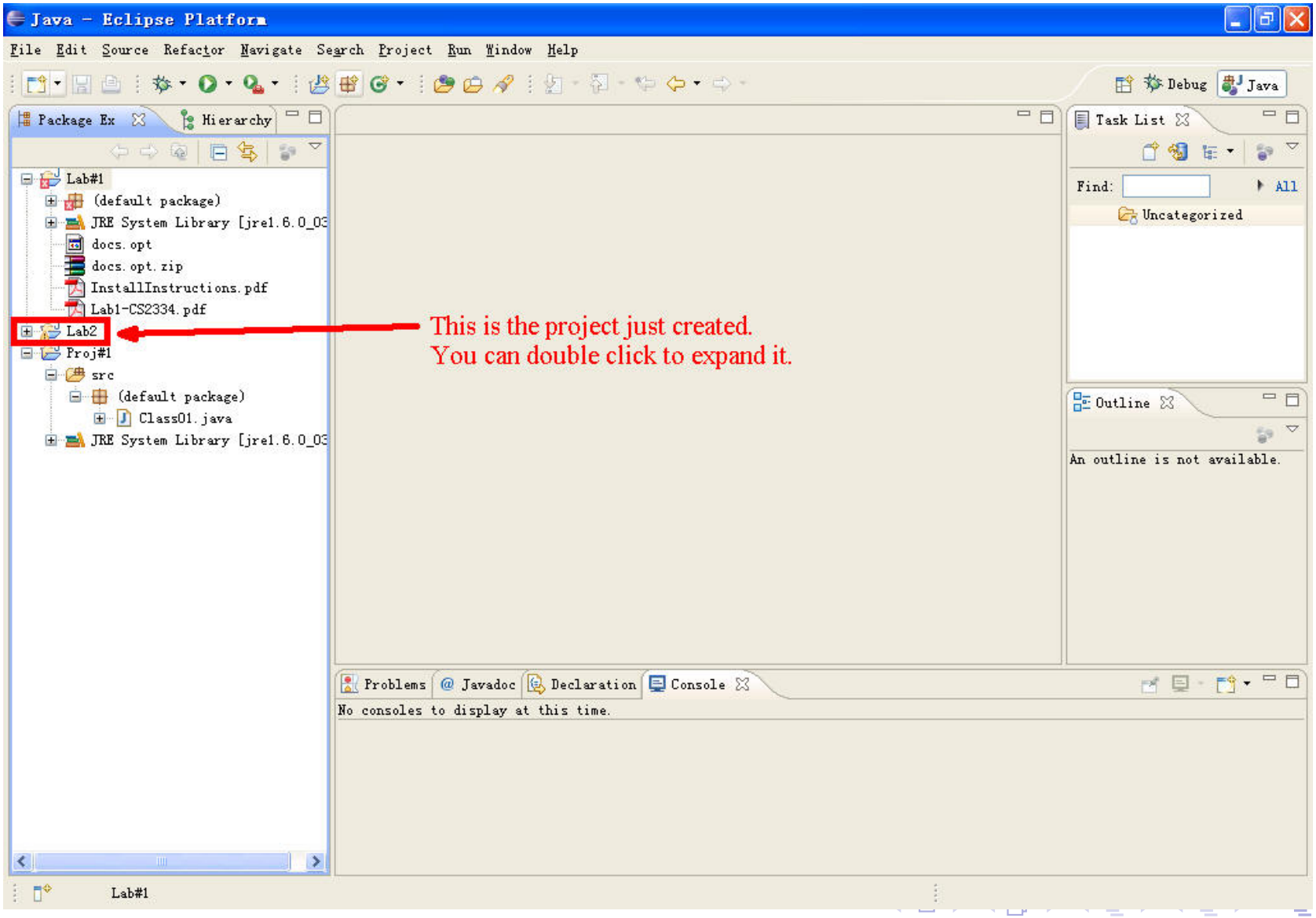
Add a .zip File As a New Project (Cont'd)



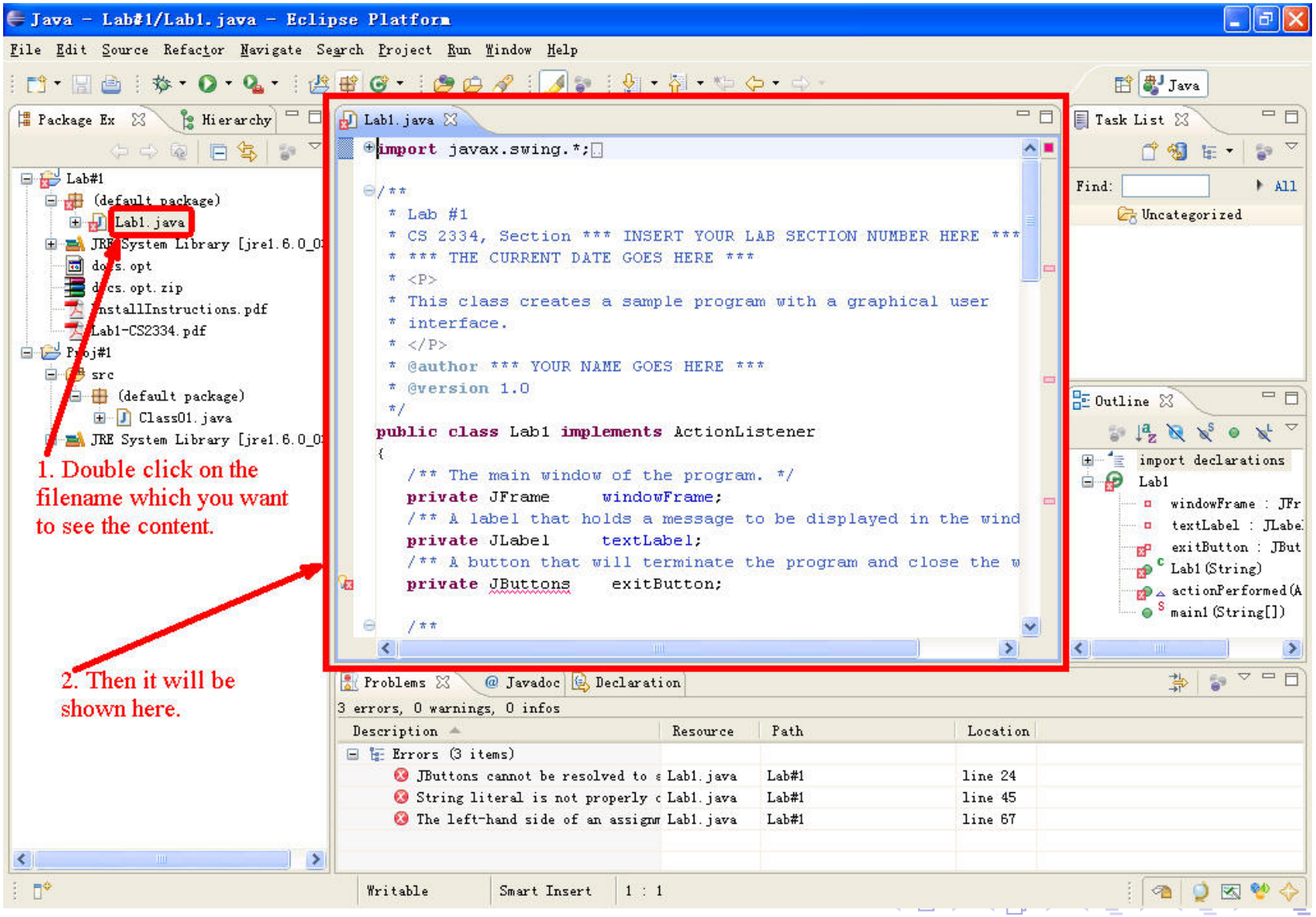
Add a .zip File As a New Project (Cont'd)



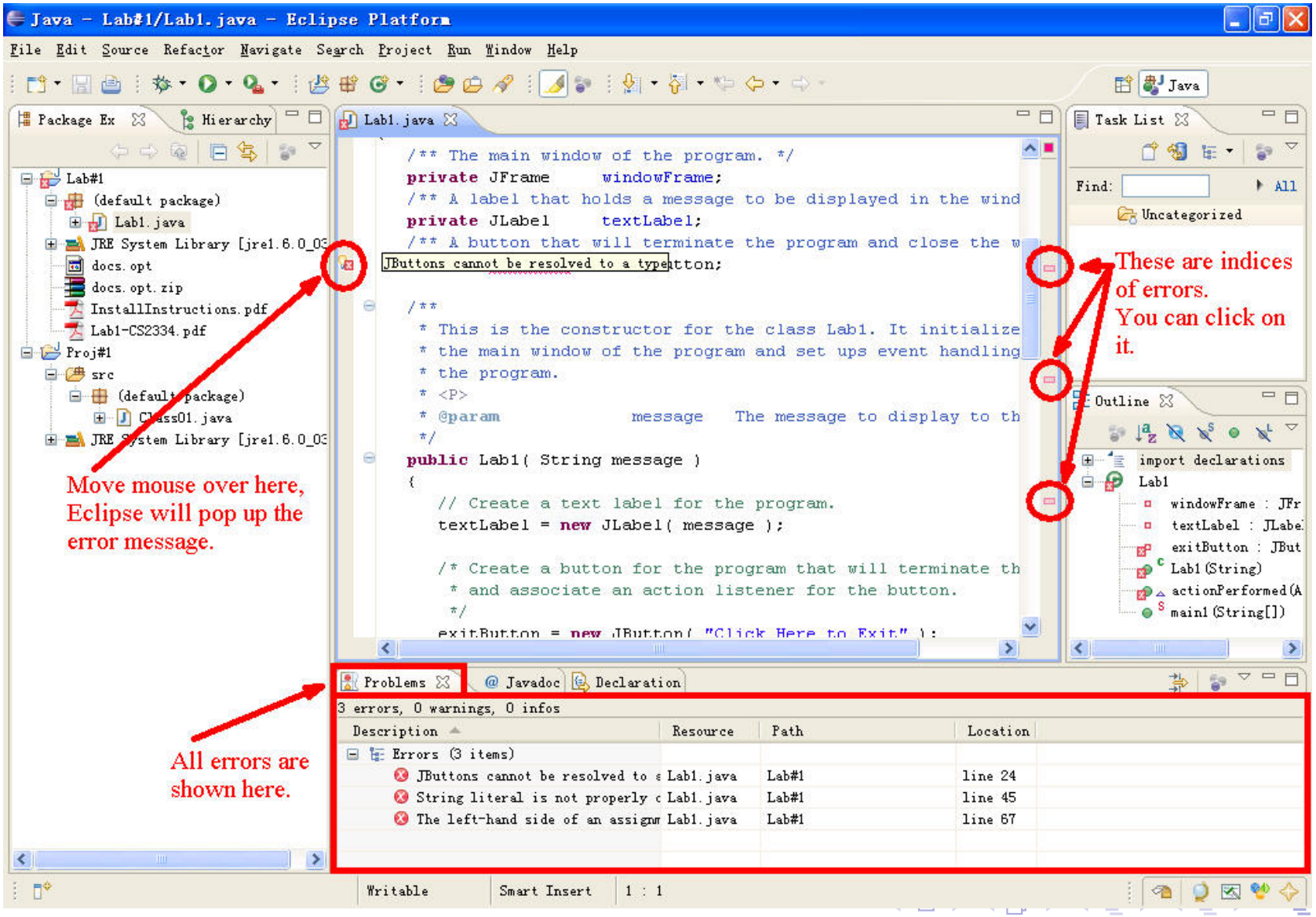
Add a .zip File As a New Project (Cont'd)



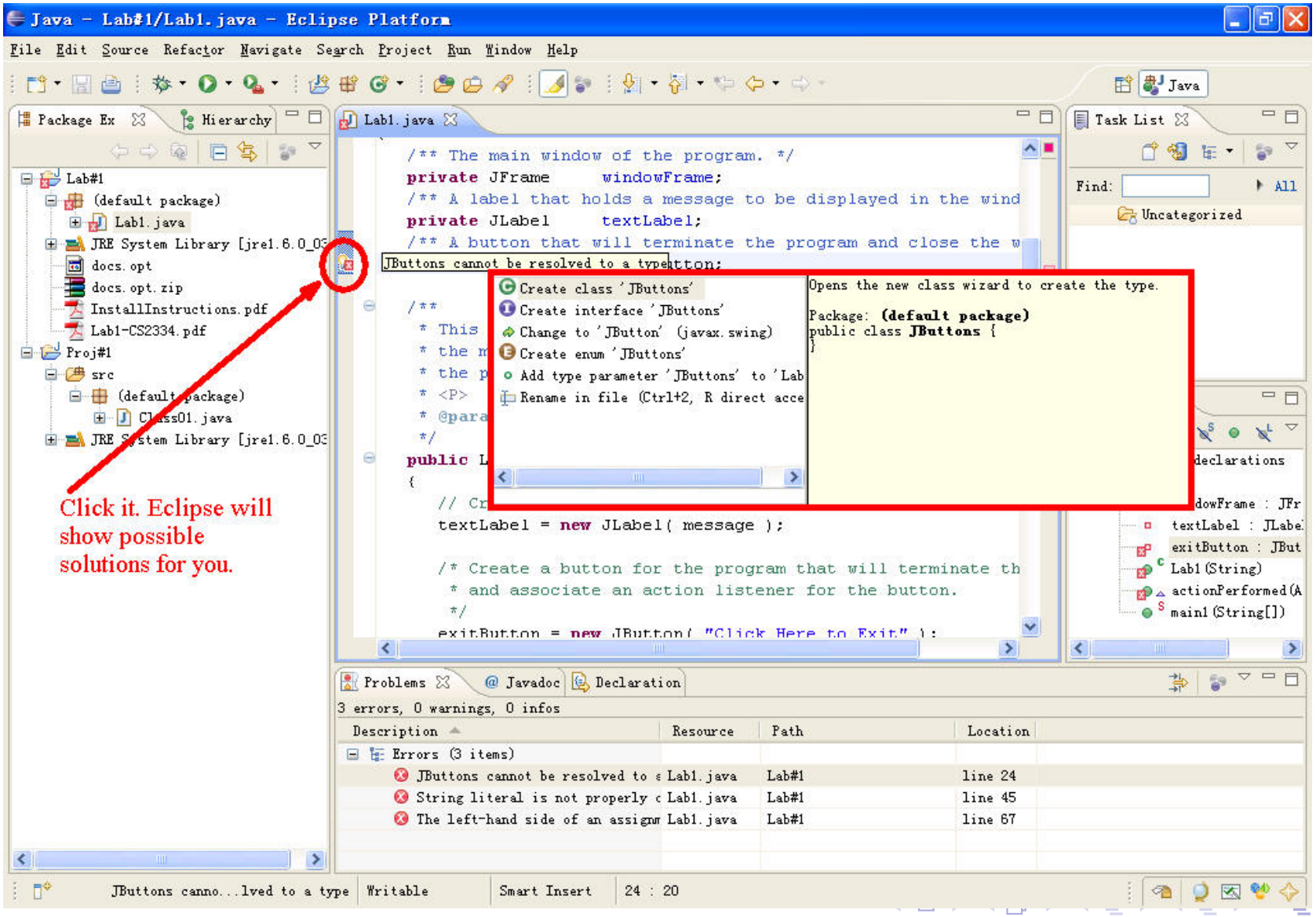
Locate Errors in a .java File



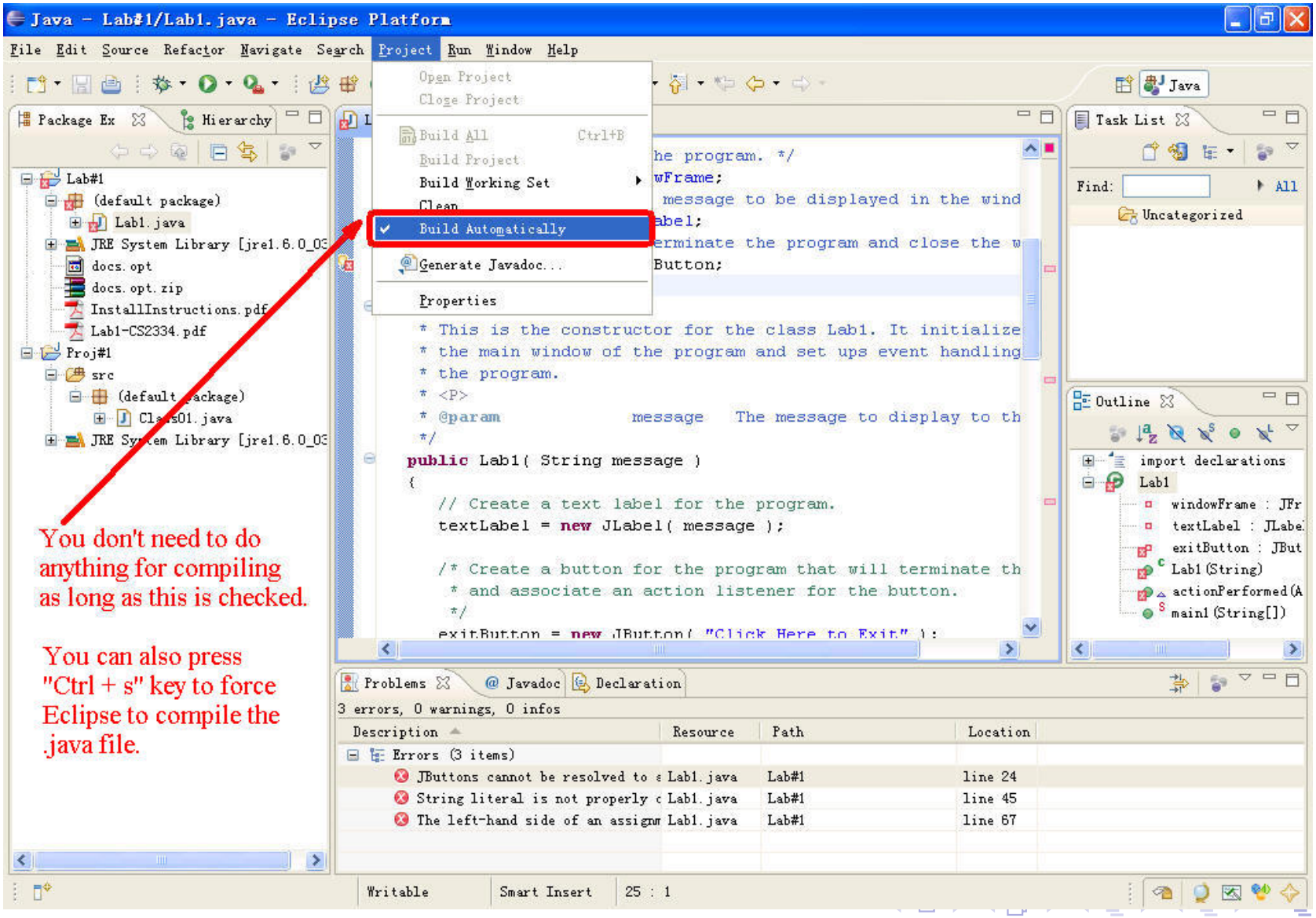
Locate Errors in a .java File (cont'd)



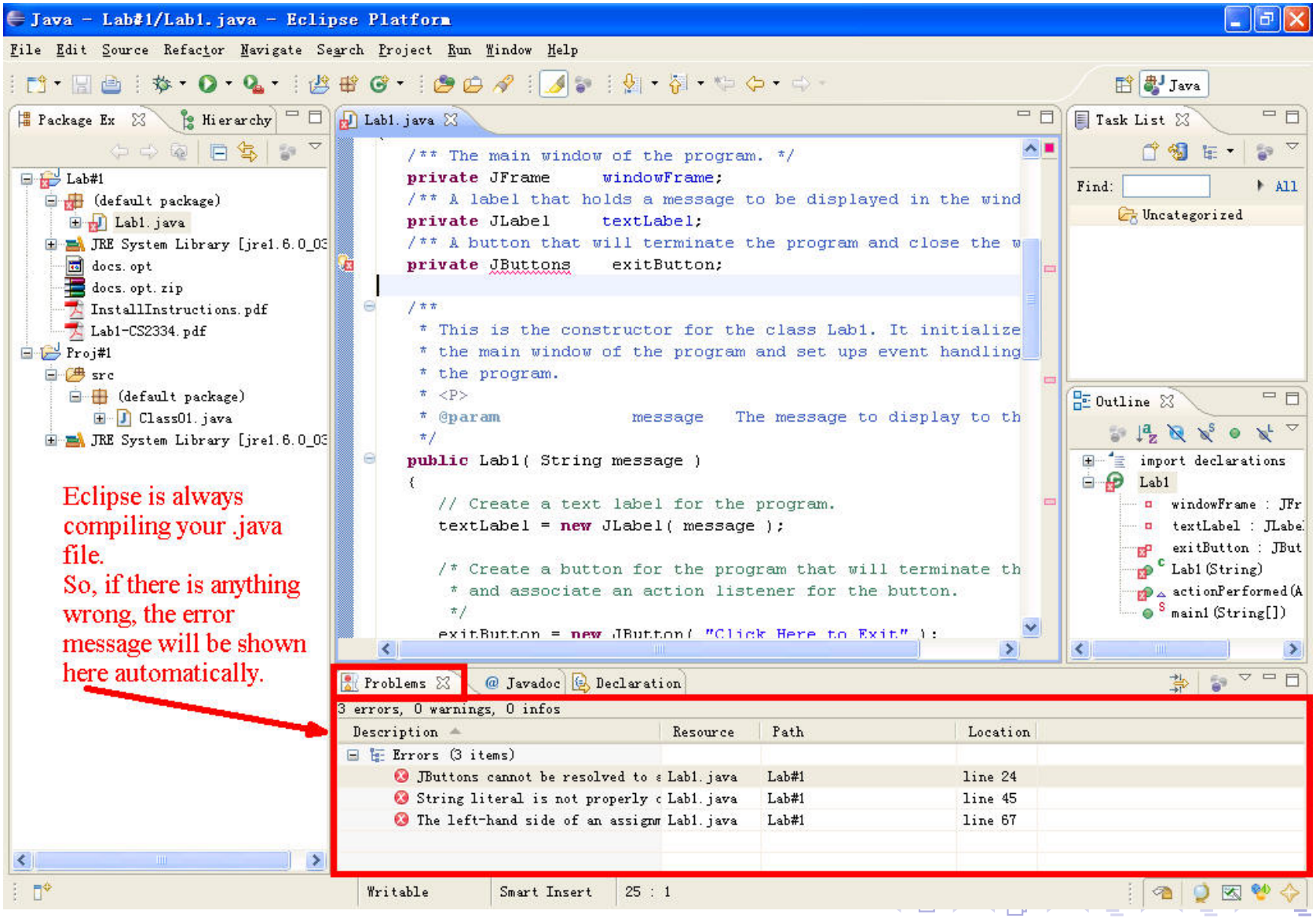
Locate Errors in a .java File (cont'd)



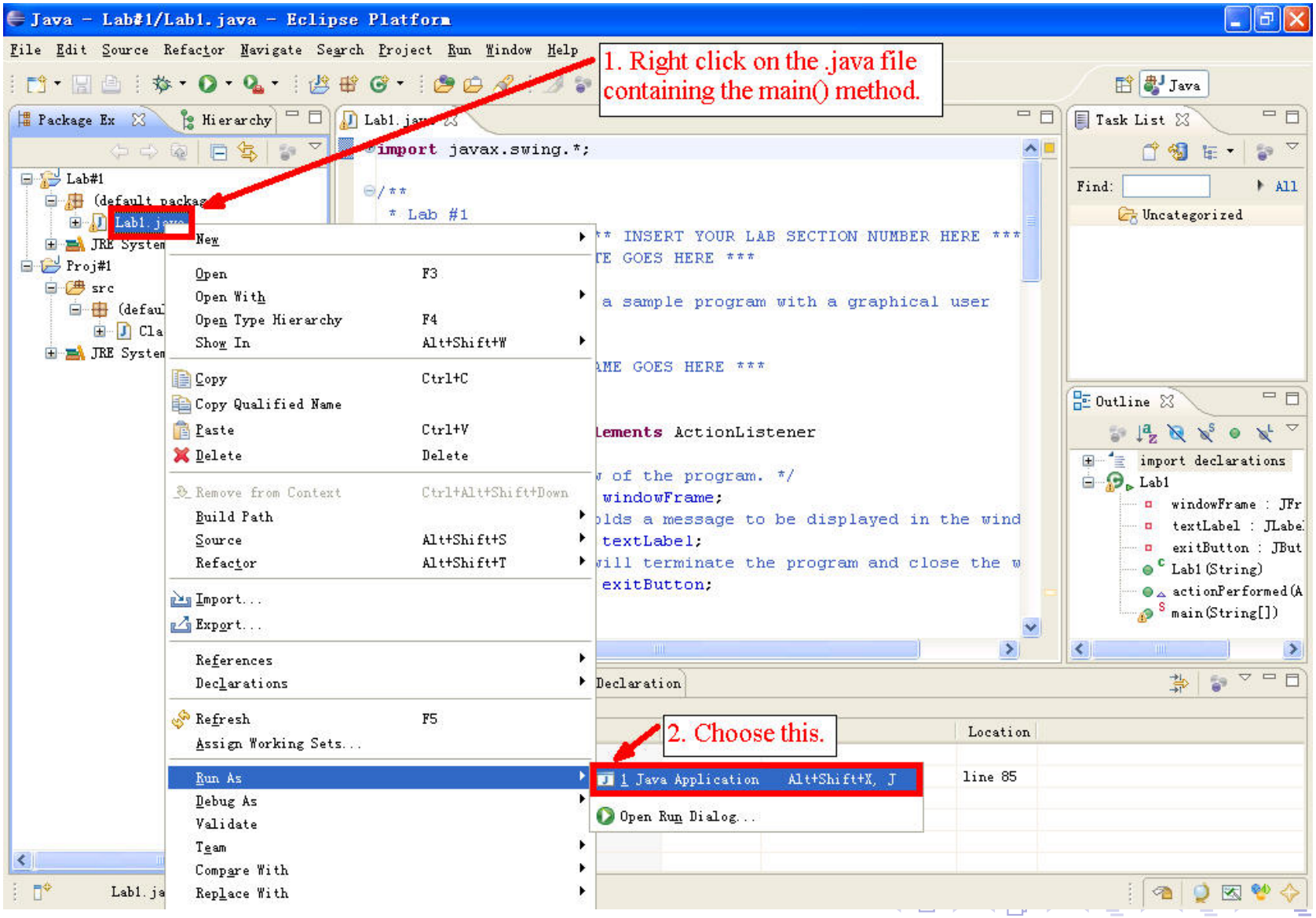
Compile a .java File



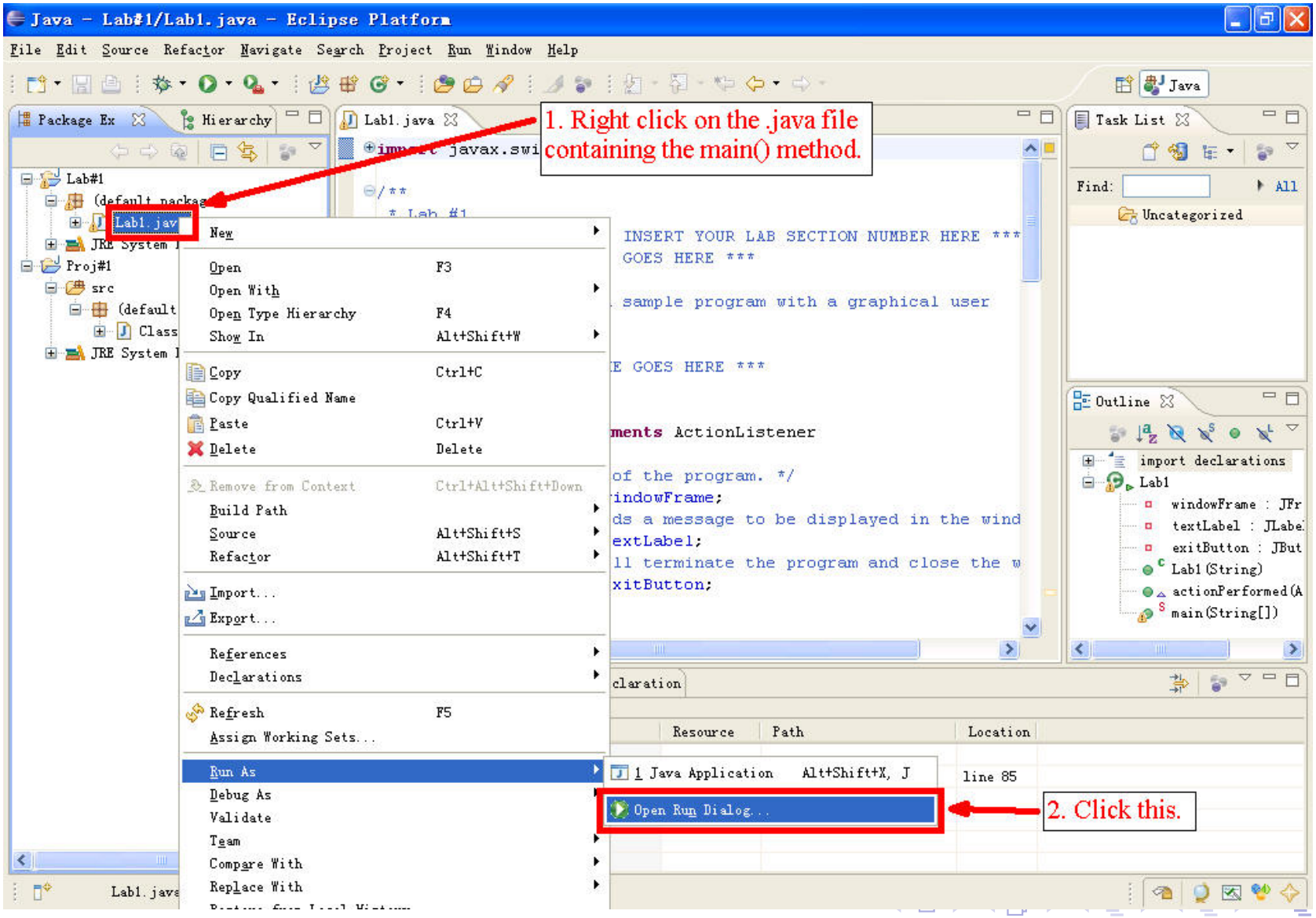
Compile a .java File (cont'd)



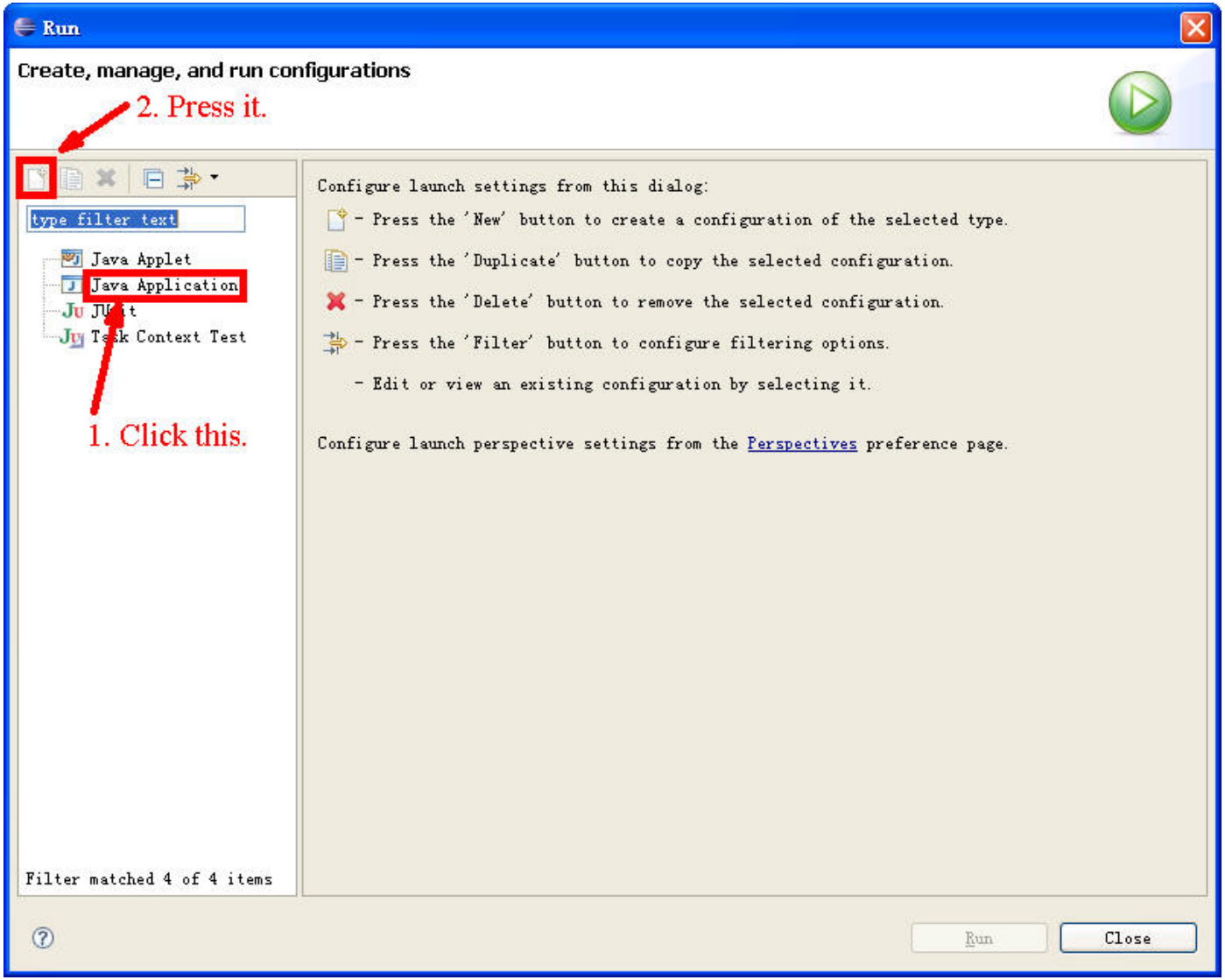
How to Run a Project



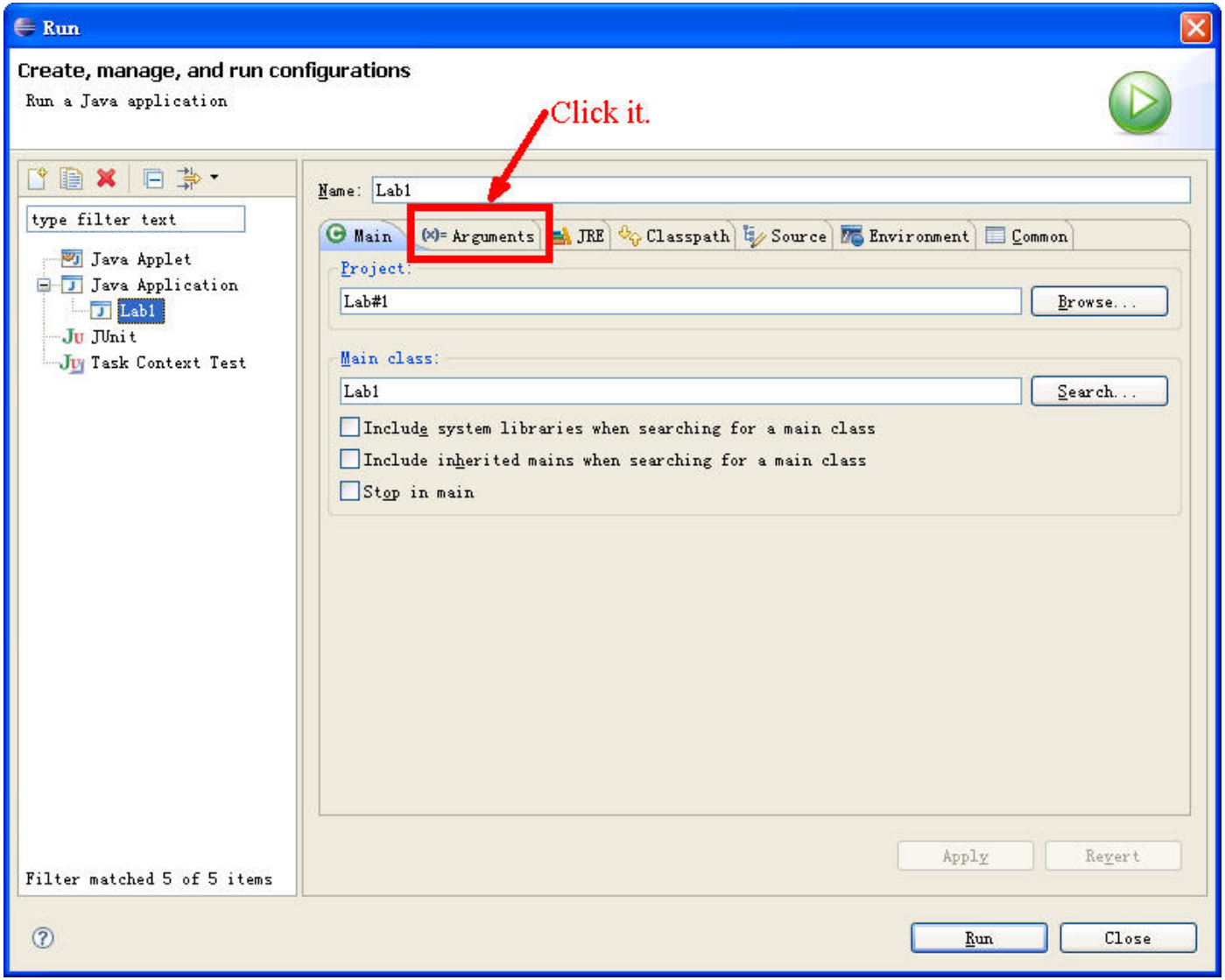
Run a Project with Command Line Arguments



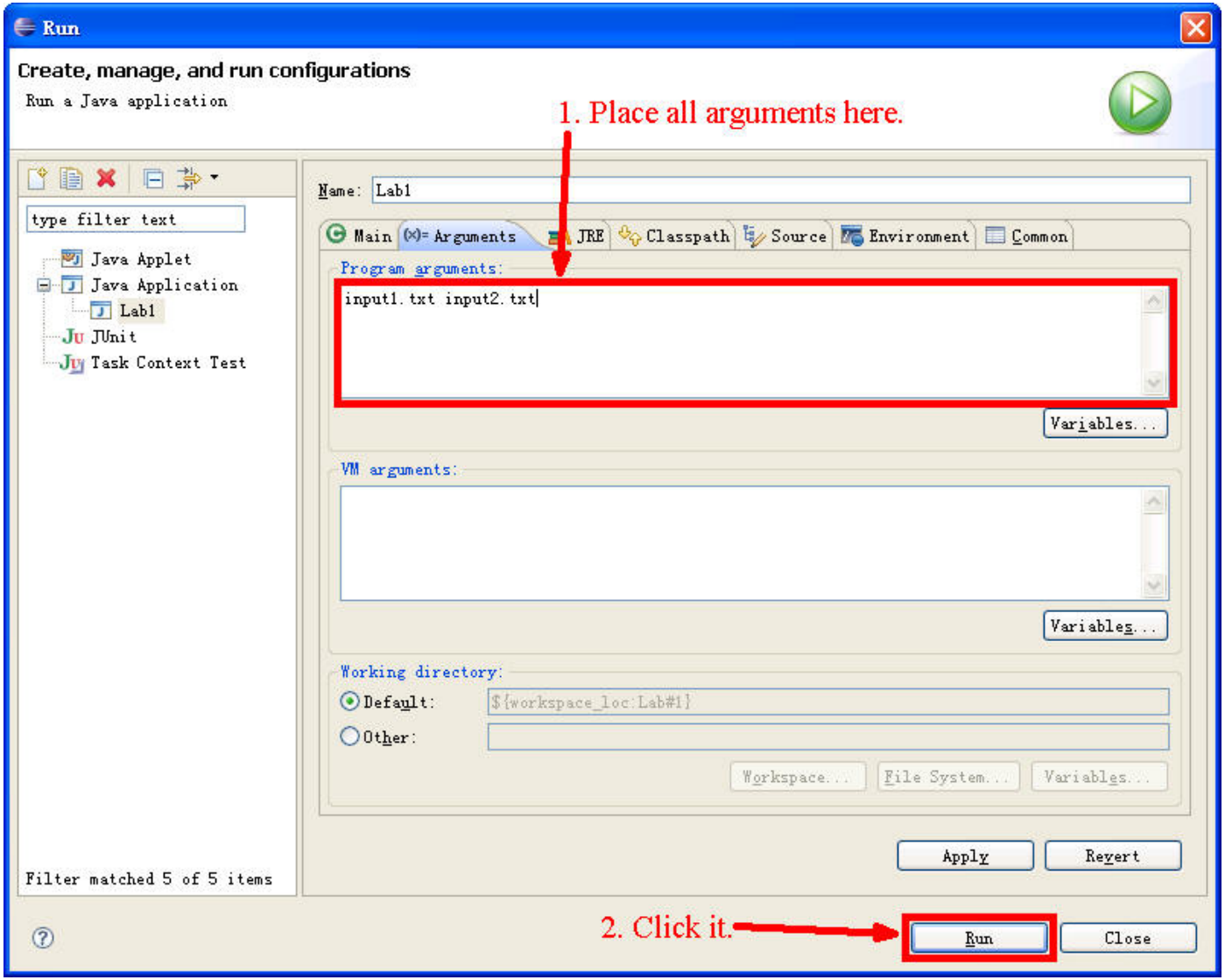
Run a Project with Command Line Arguments (cont'd)



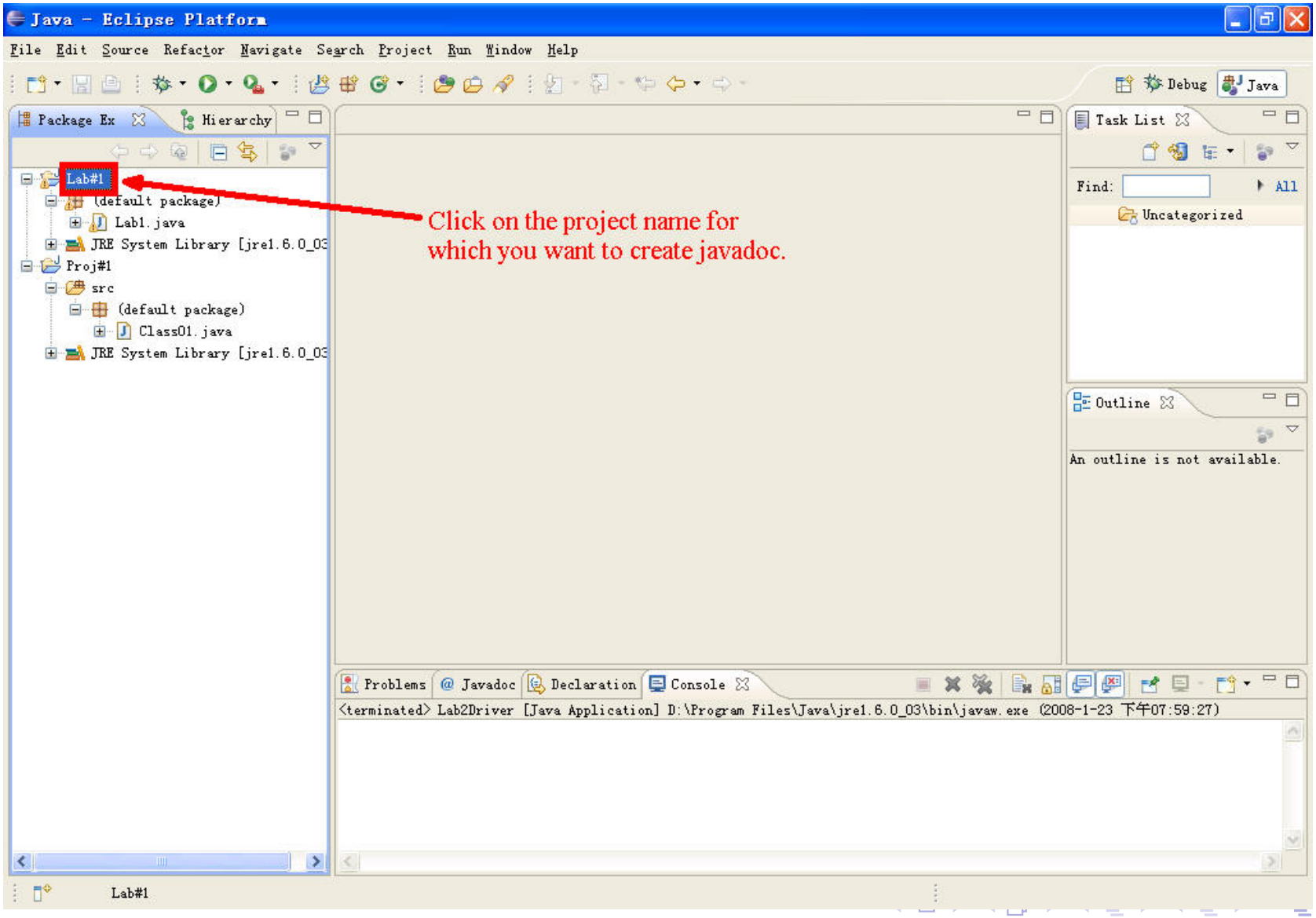
Run a Project with Command Line Arguments (cont'd)



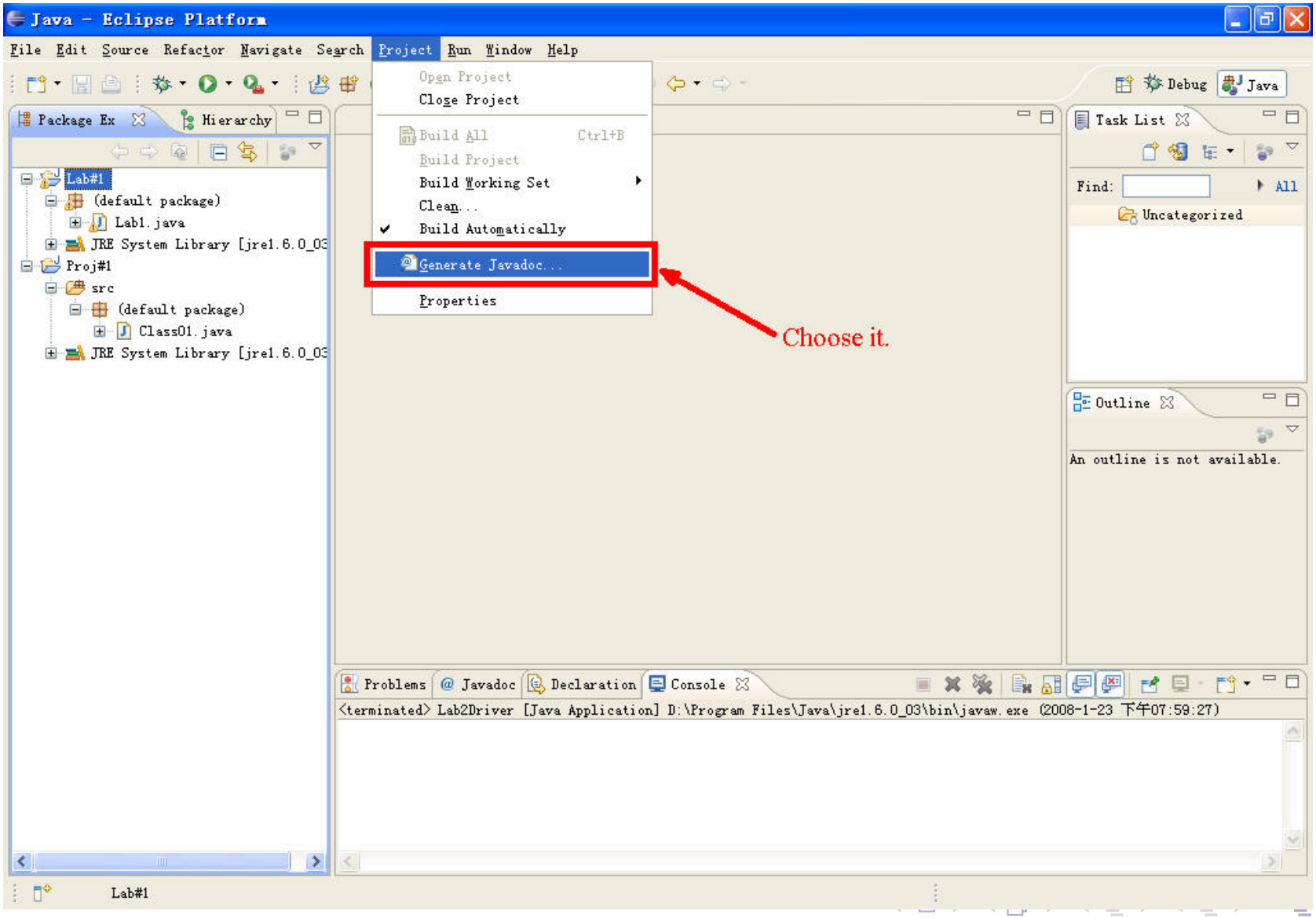
Run a Project with Command Line Arguments (cont'd)



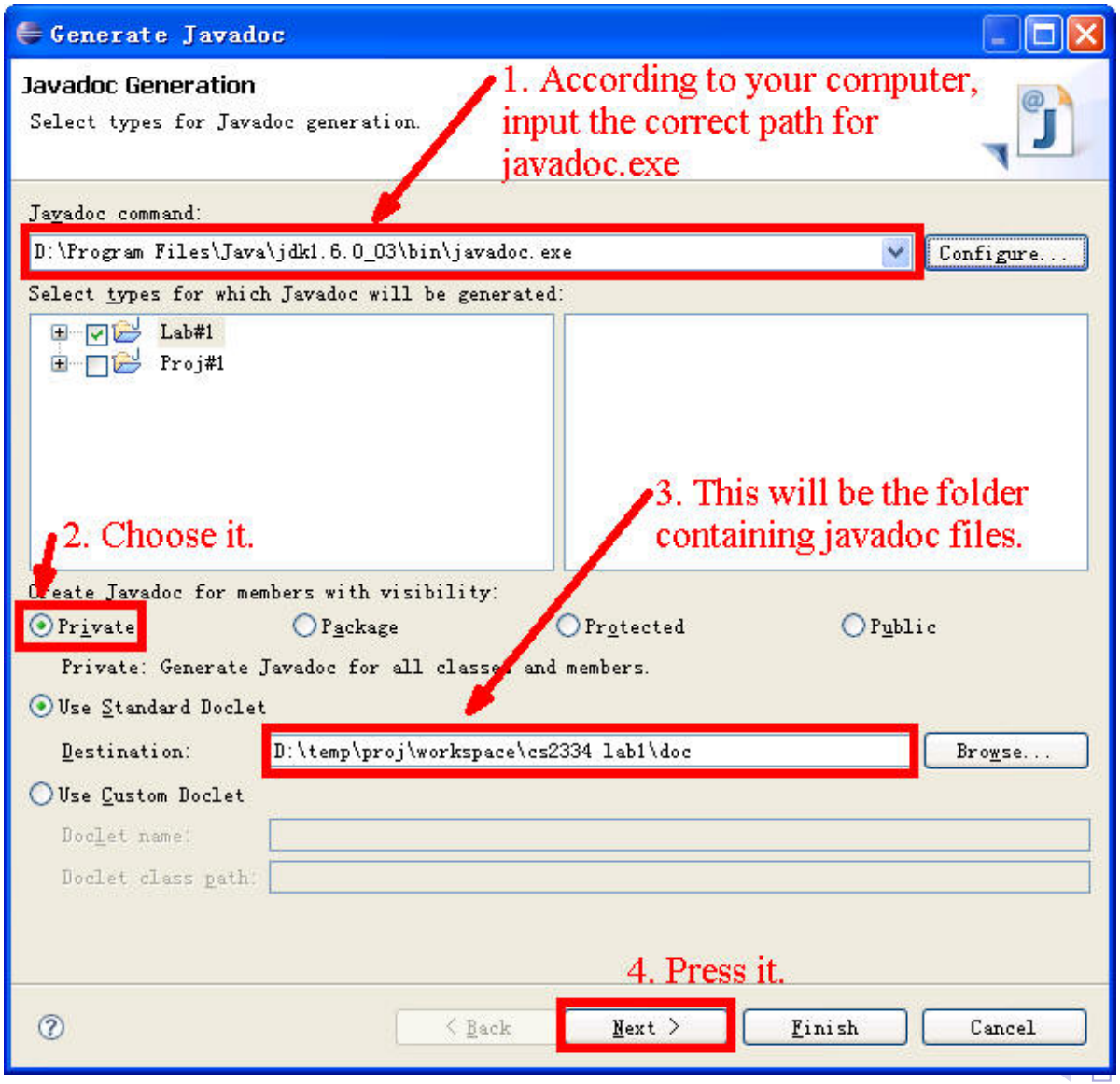
Create Javadoc



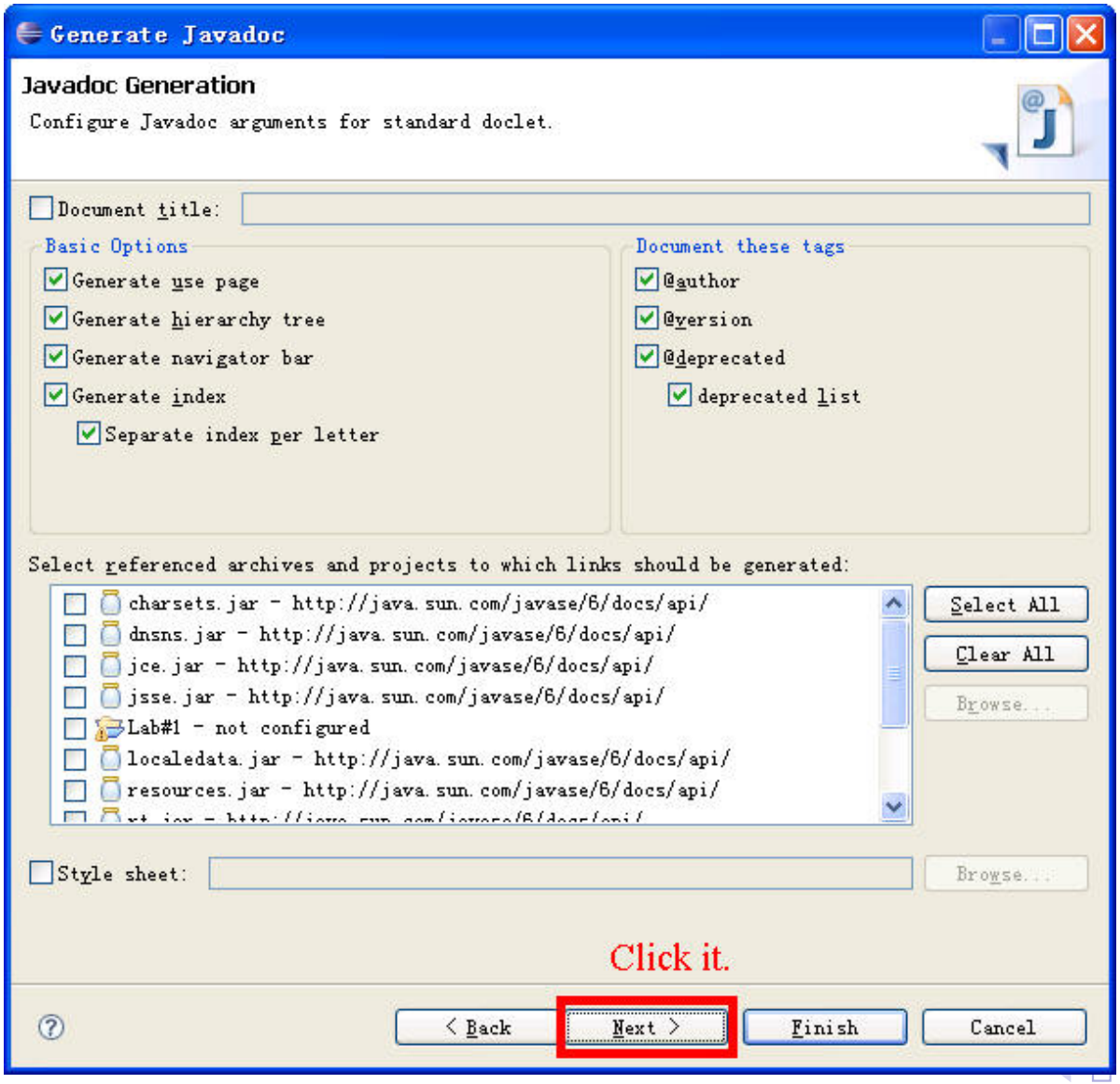
Create Javadoc (cont'd)



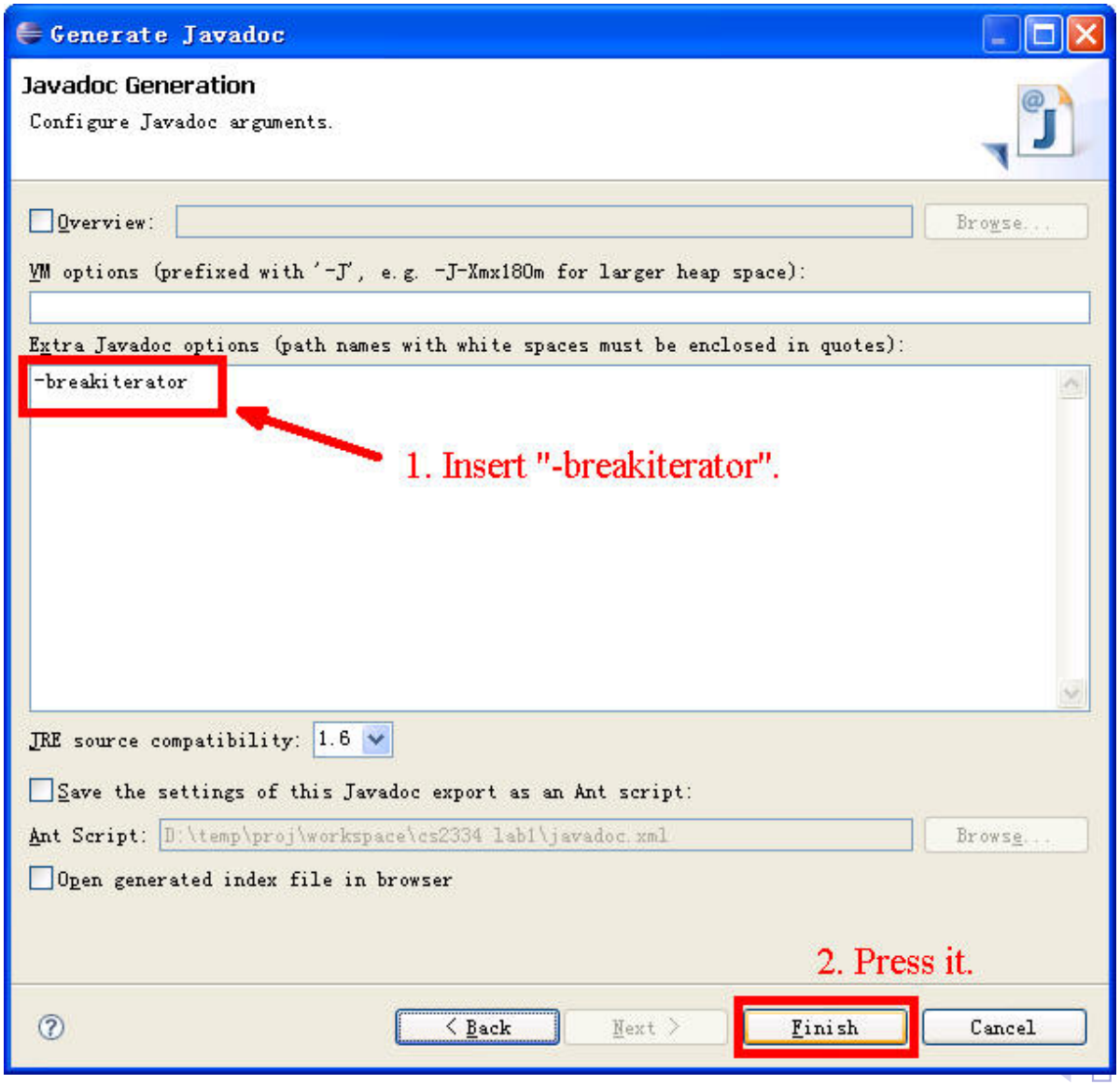
Create Javadoc (cont'd)



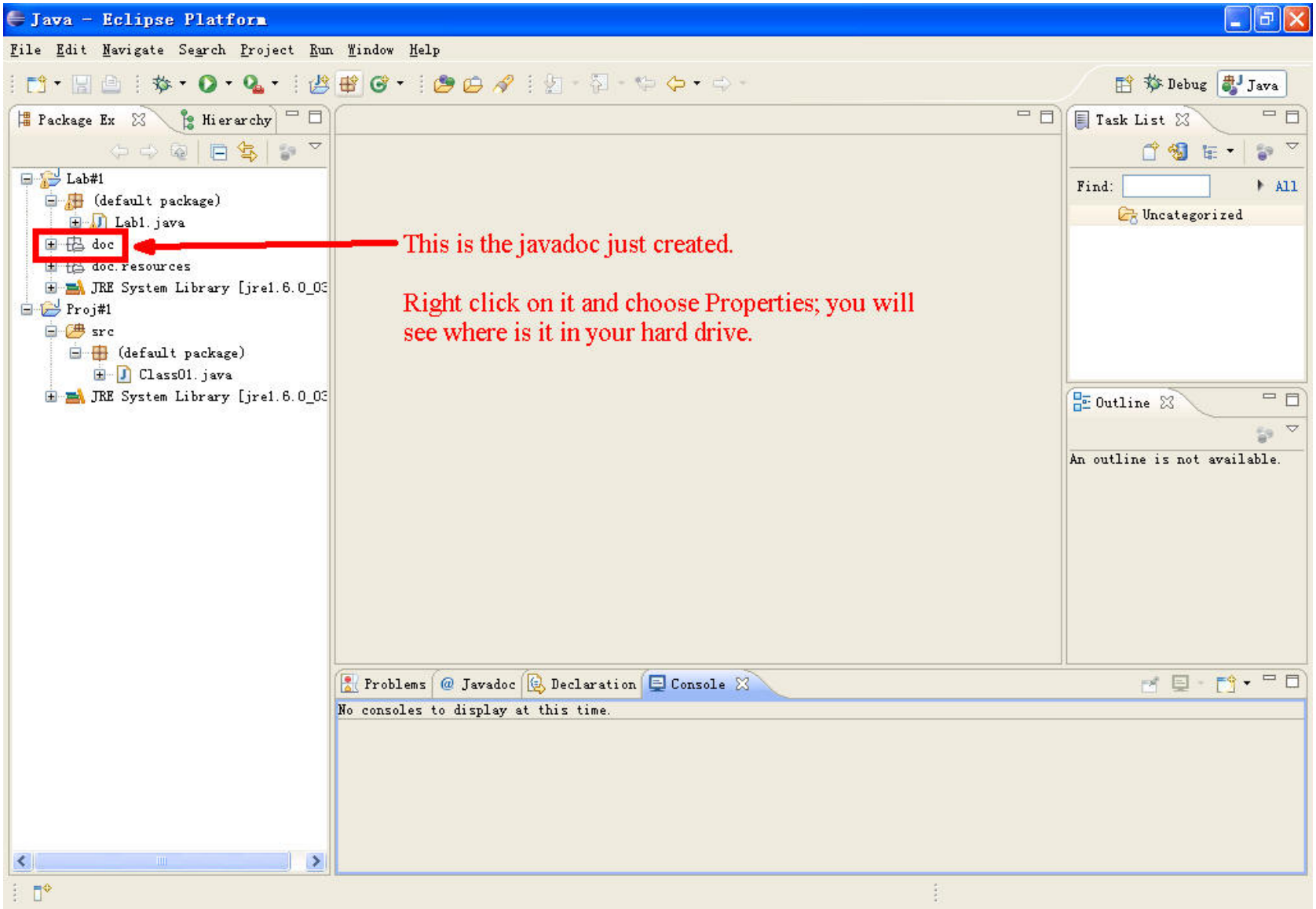
Create Javadoc (cont'd)



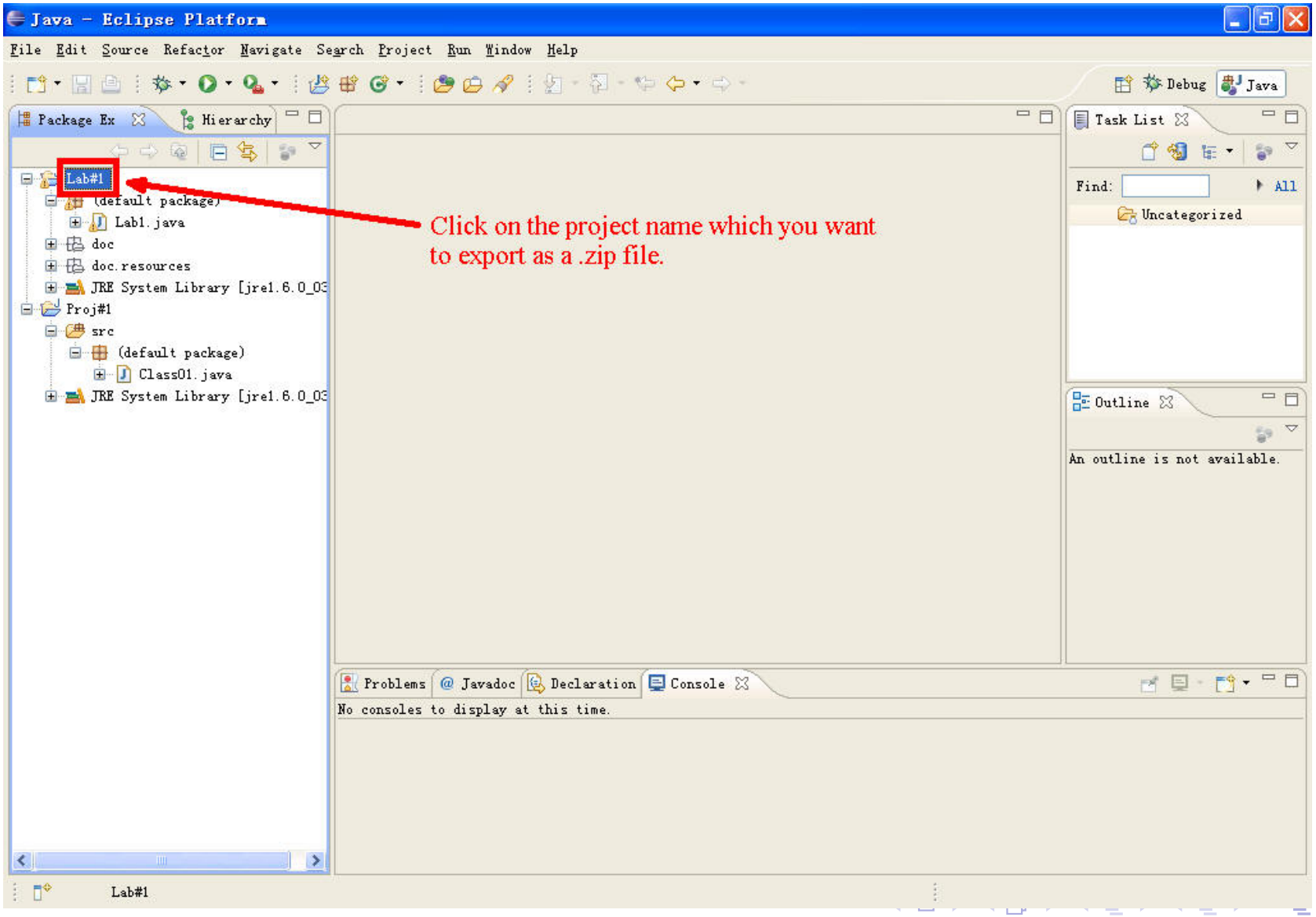
Create Javadoc (cont'd)



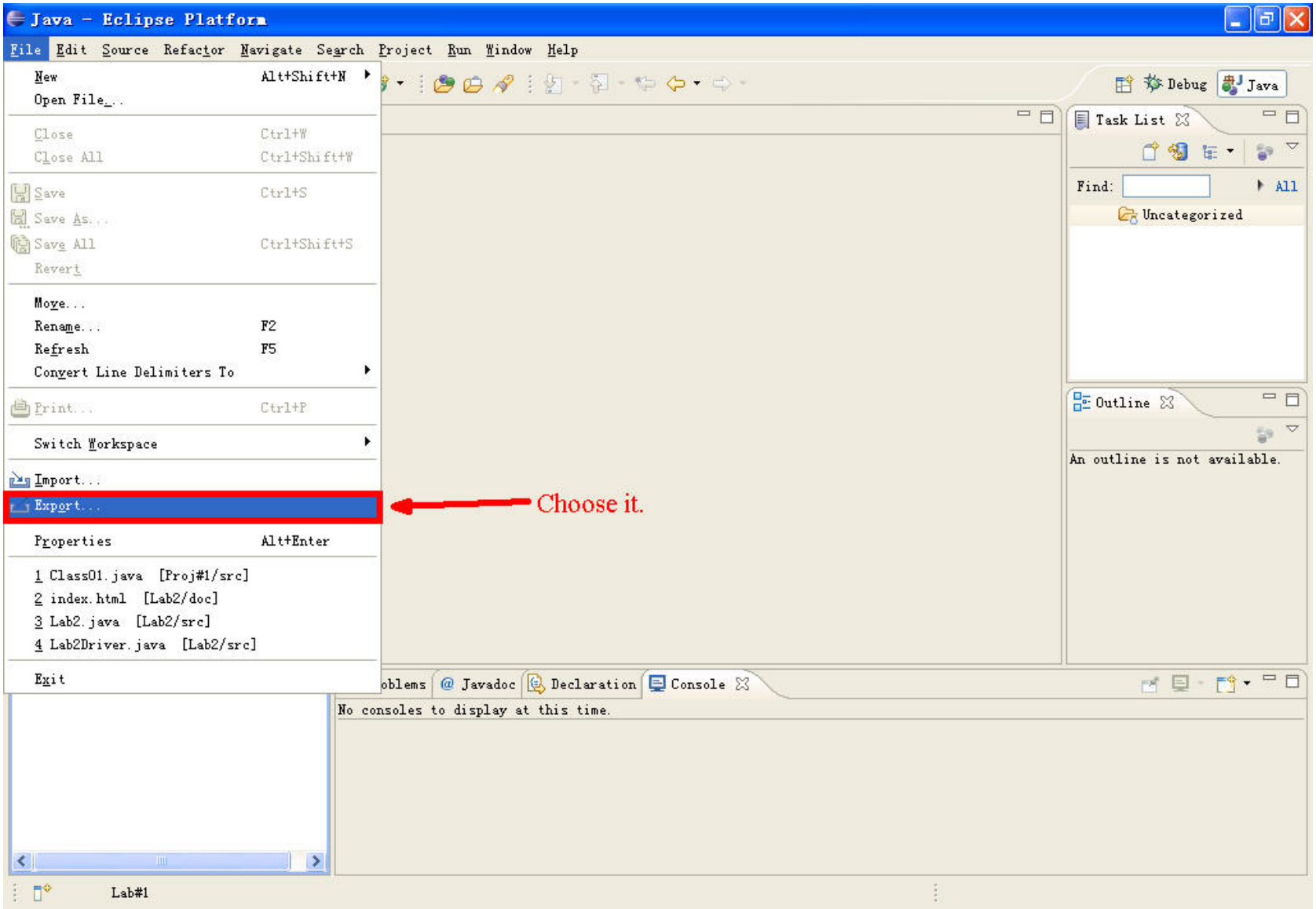
Create Javadoc (cont'd)



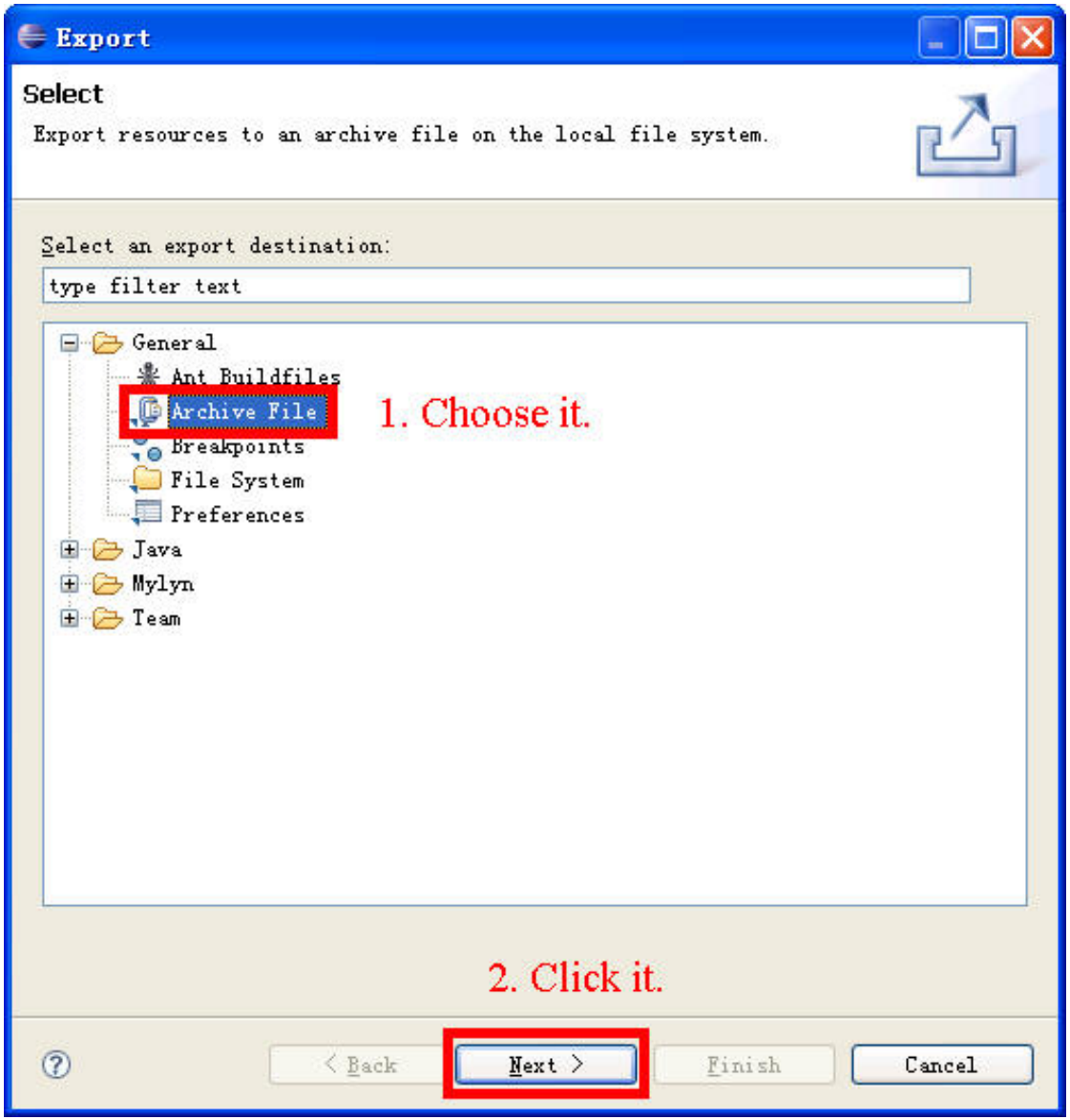
Export to a .zip File



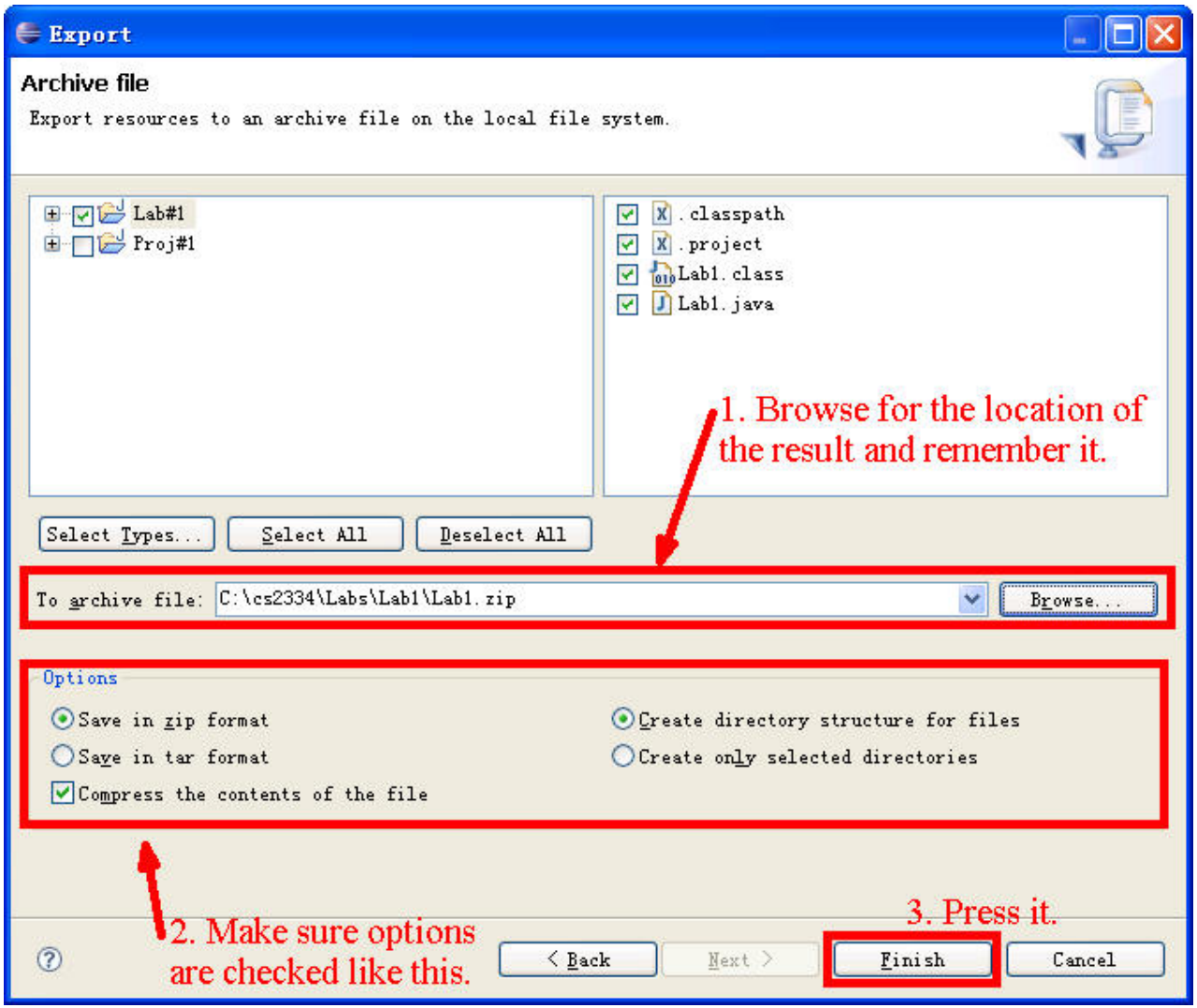
Export to a .zip File (cont'd)



Export to a .zip File (cont'd)

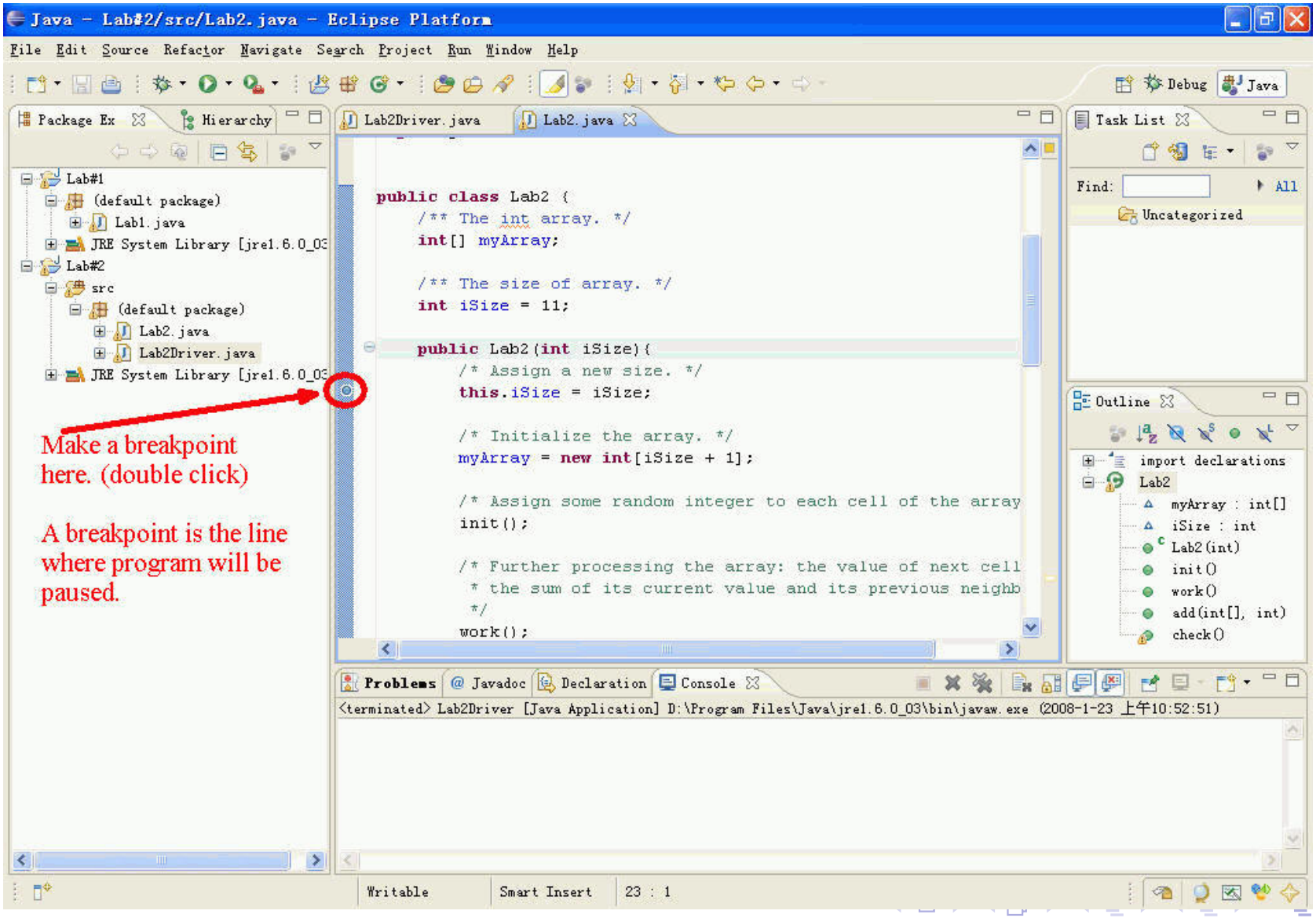


Export to a .zip File (cont'd)

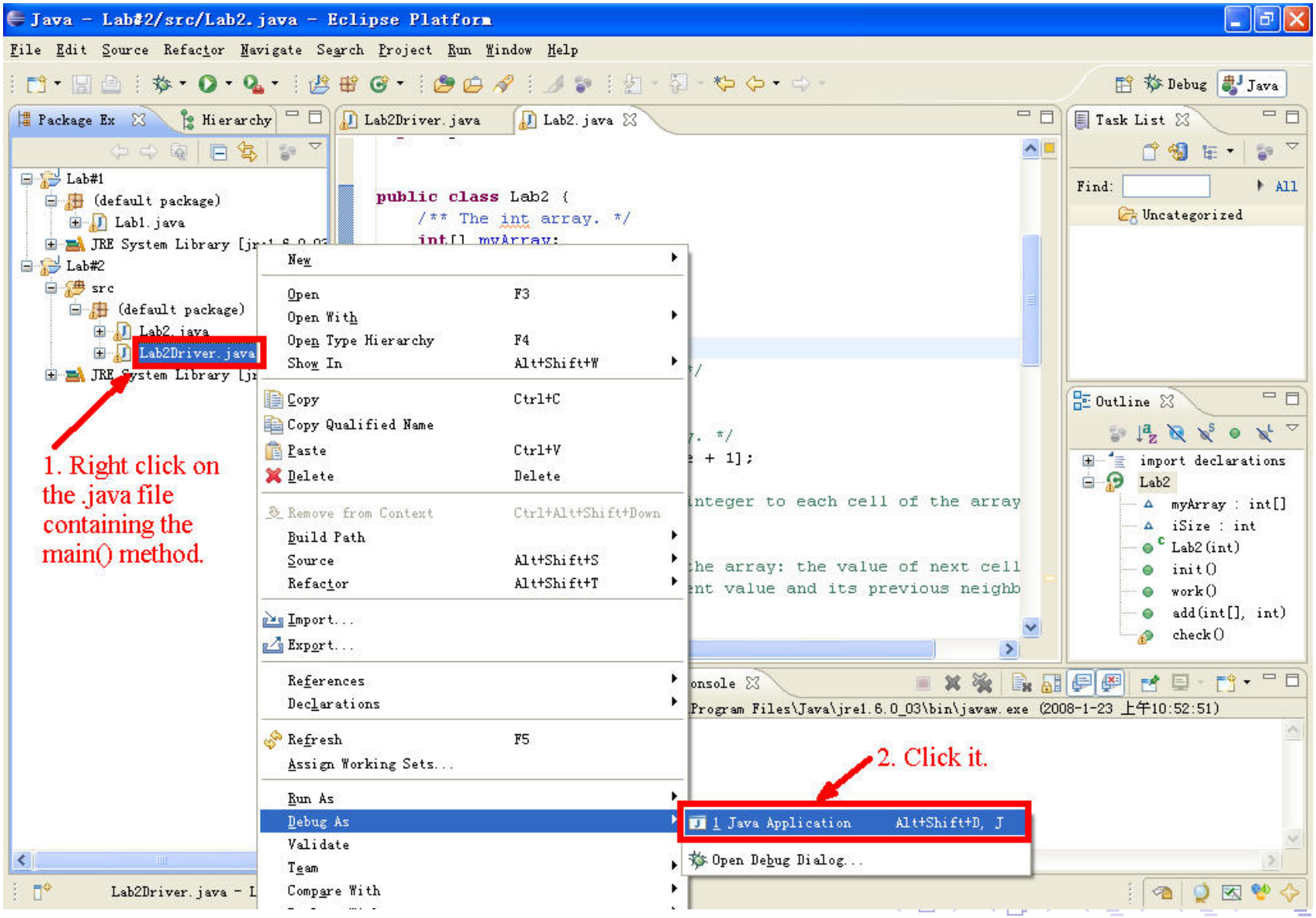


Basic Eclipse Debugging

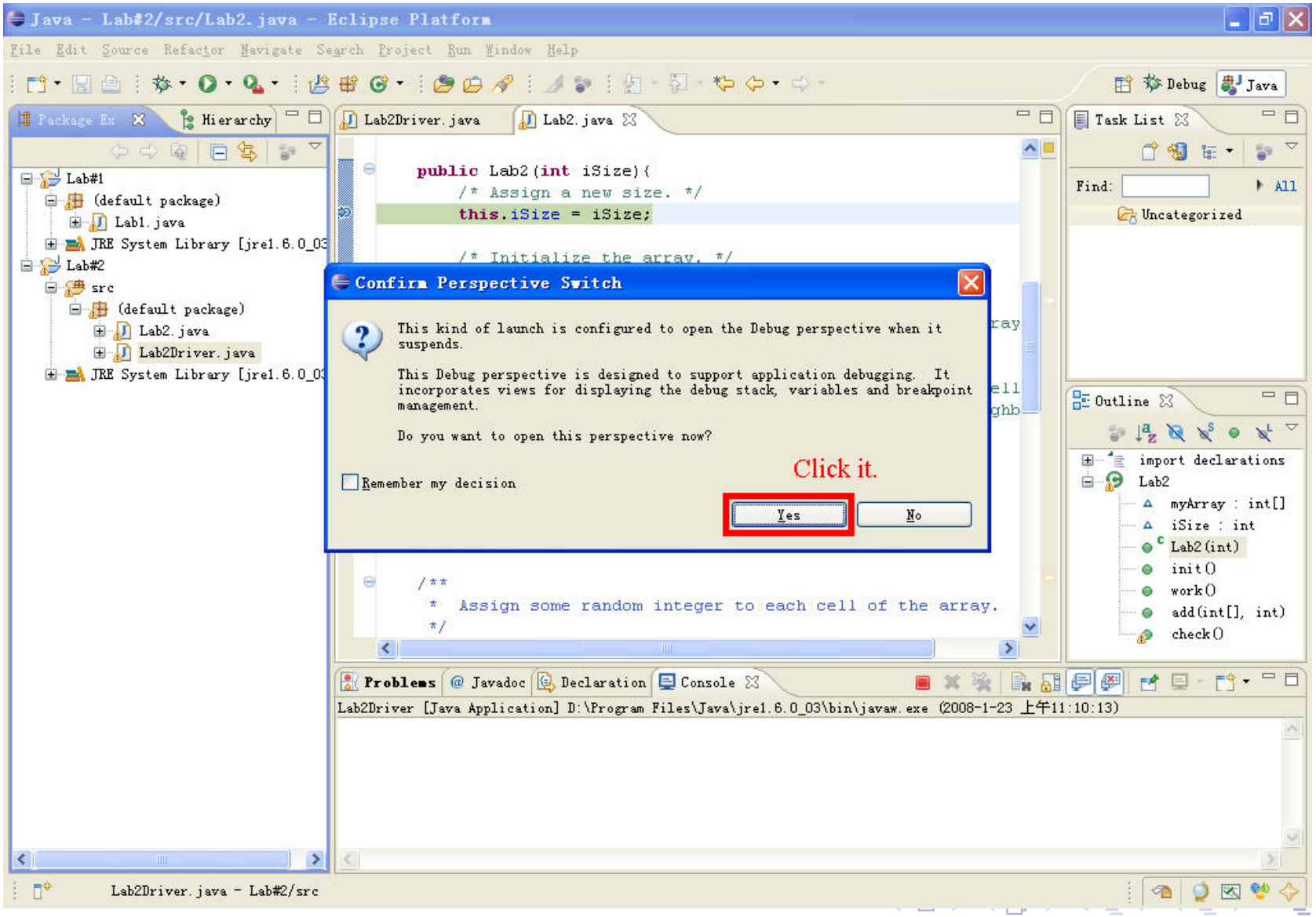
Breakpoints



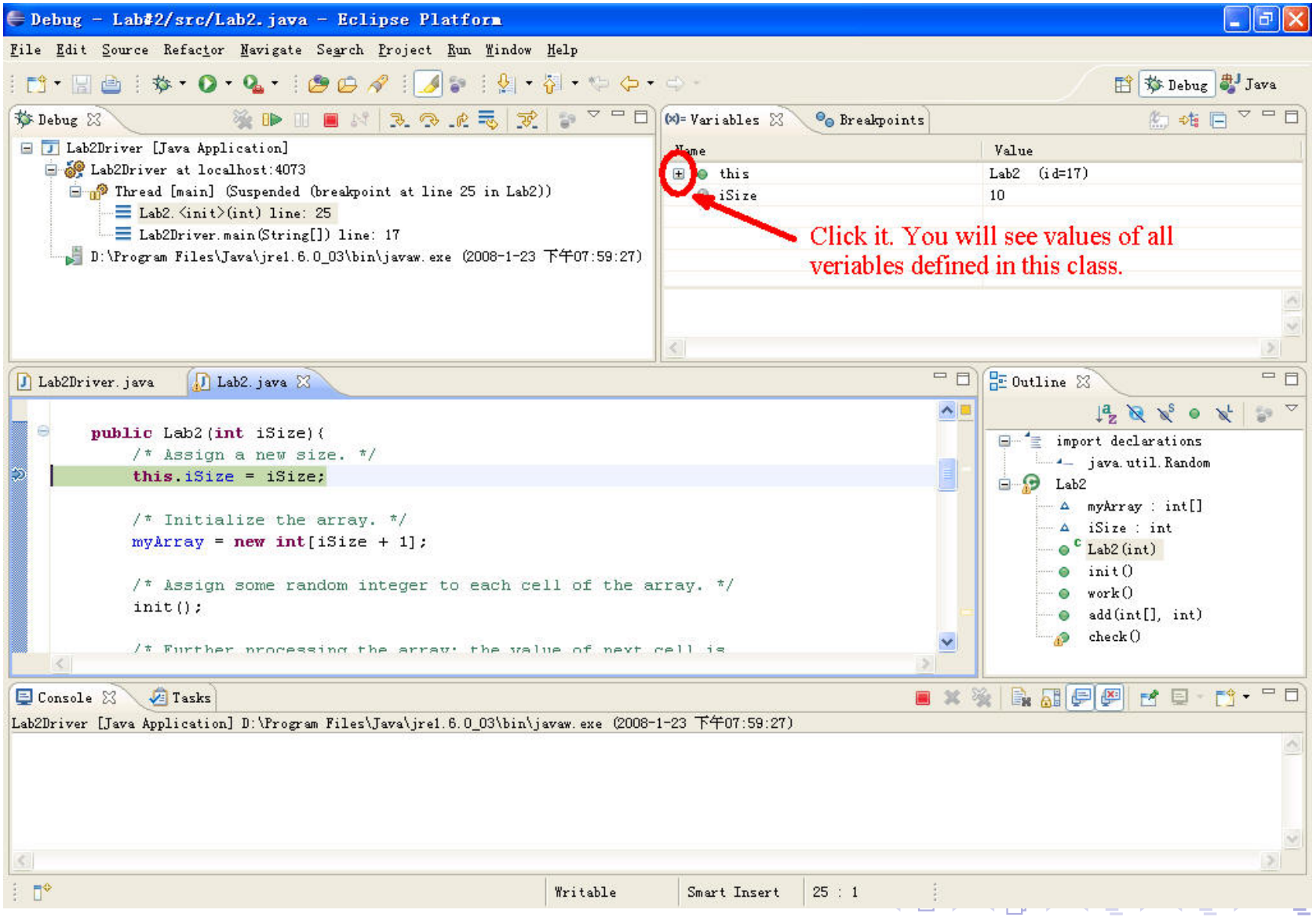
Run Eclipse Debugger



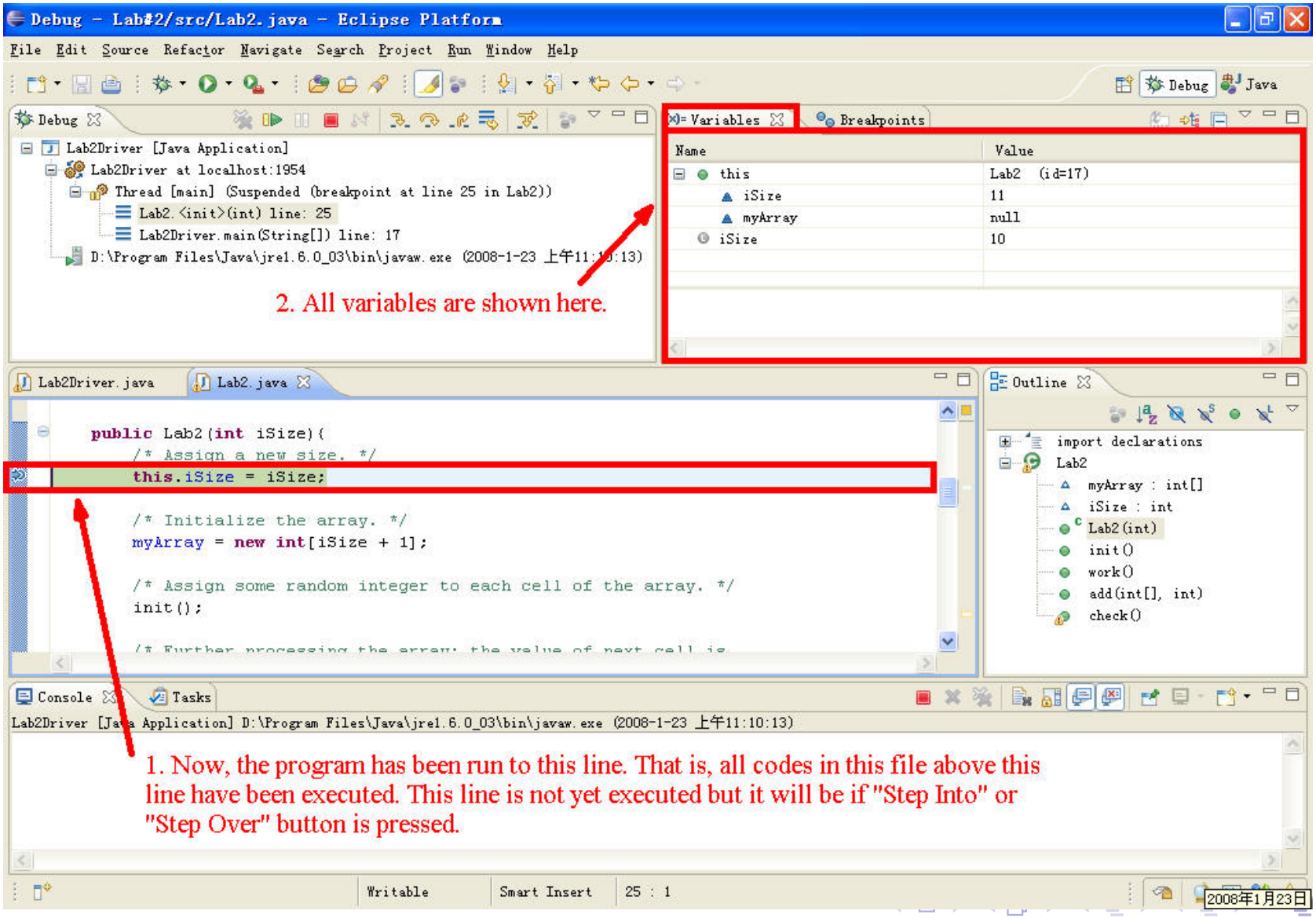
Run Eclipse Debugger (cont'd)



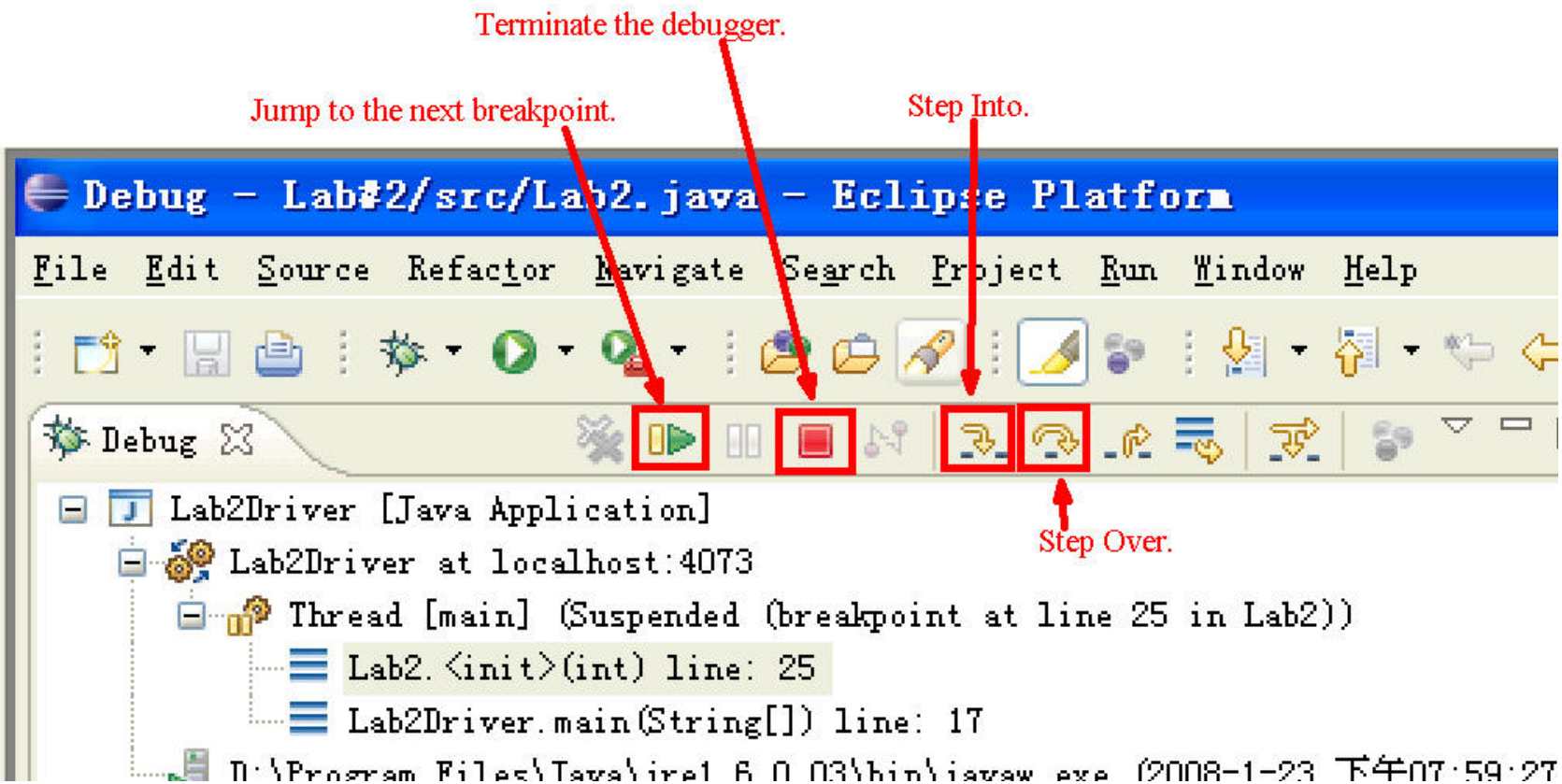
Run Eclipse Debugger (cont'd)



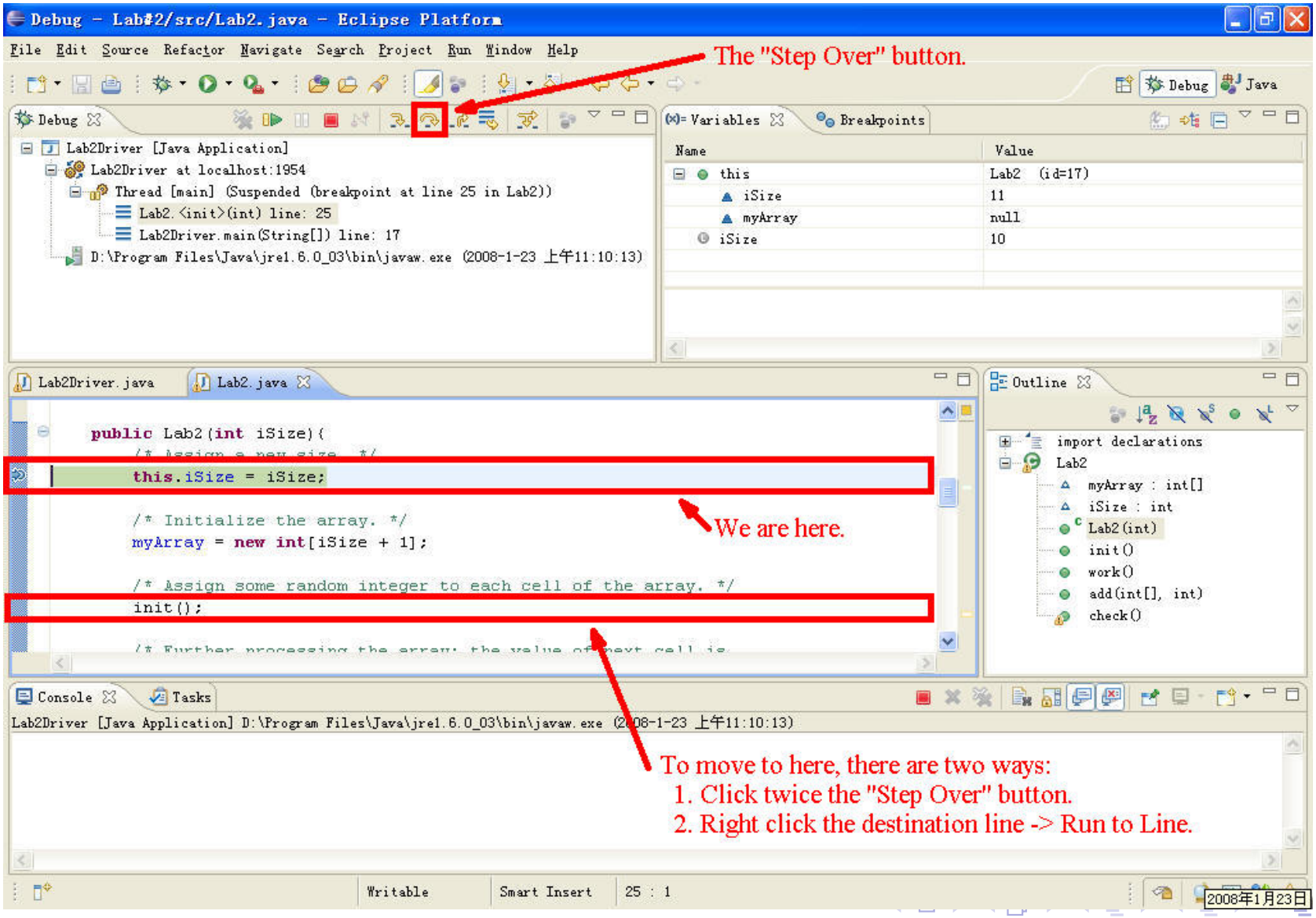
Run Eclipse Debugger (cont'd)



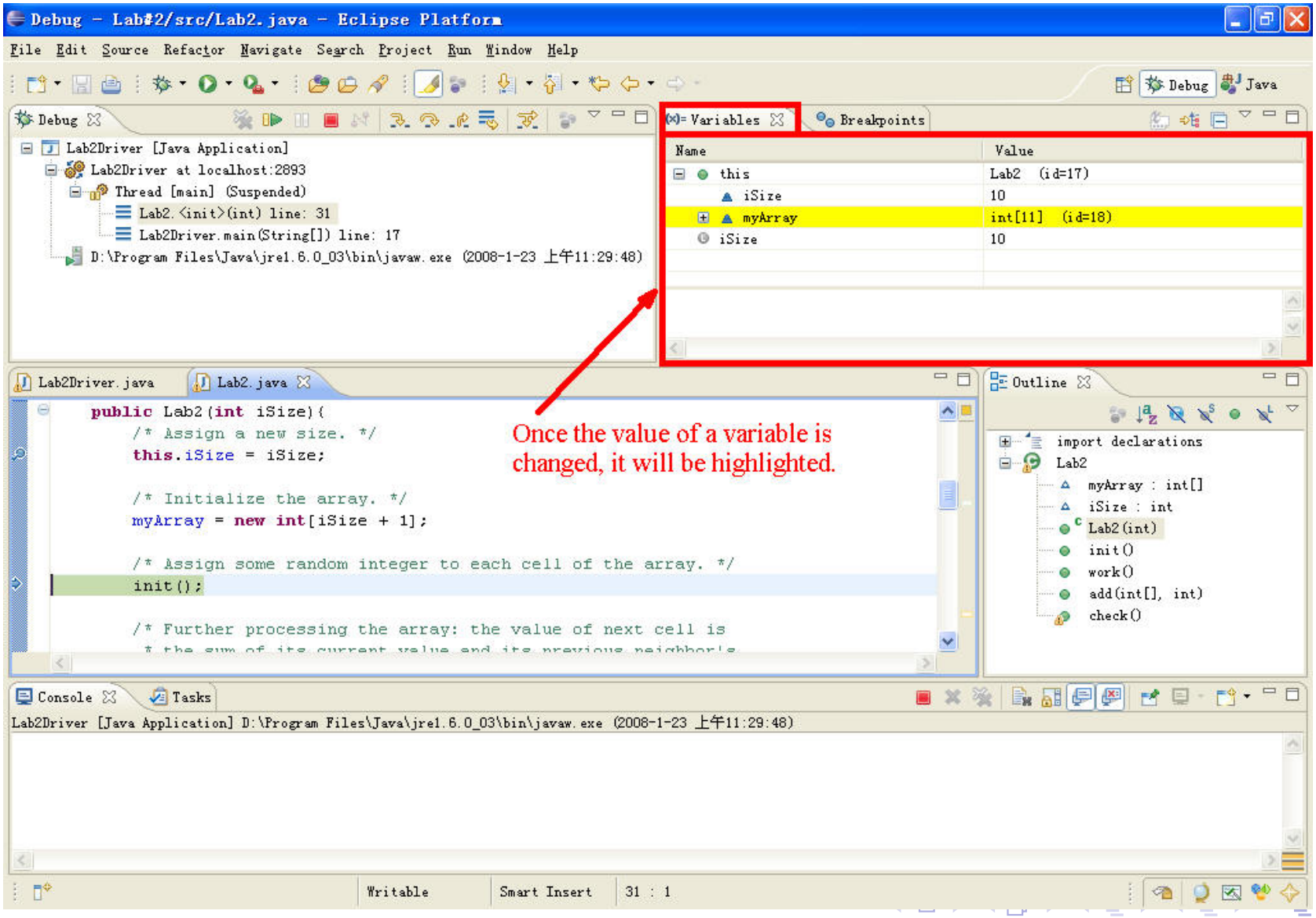
Useful Buttons



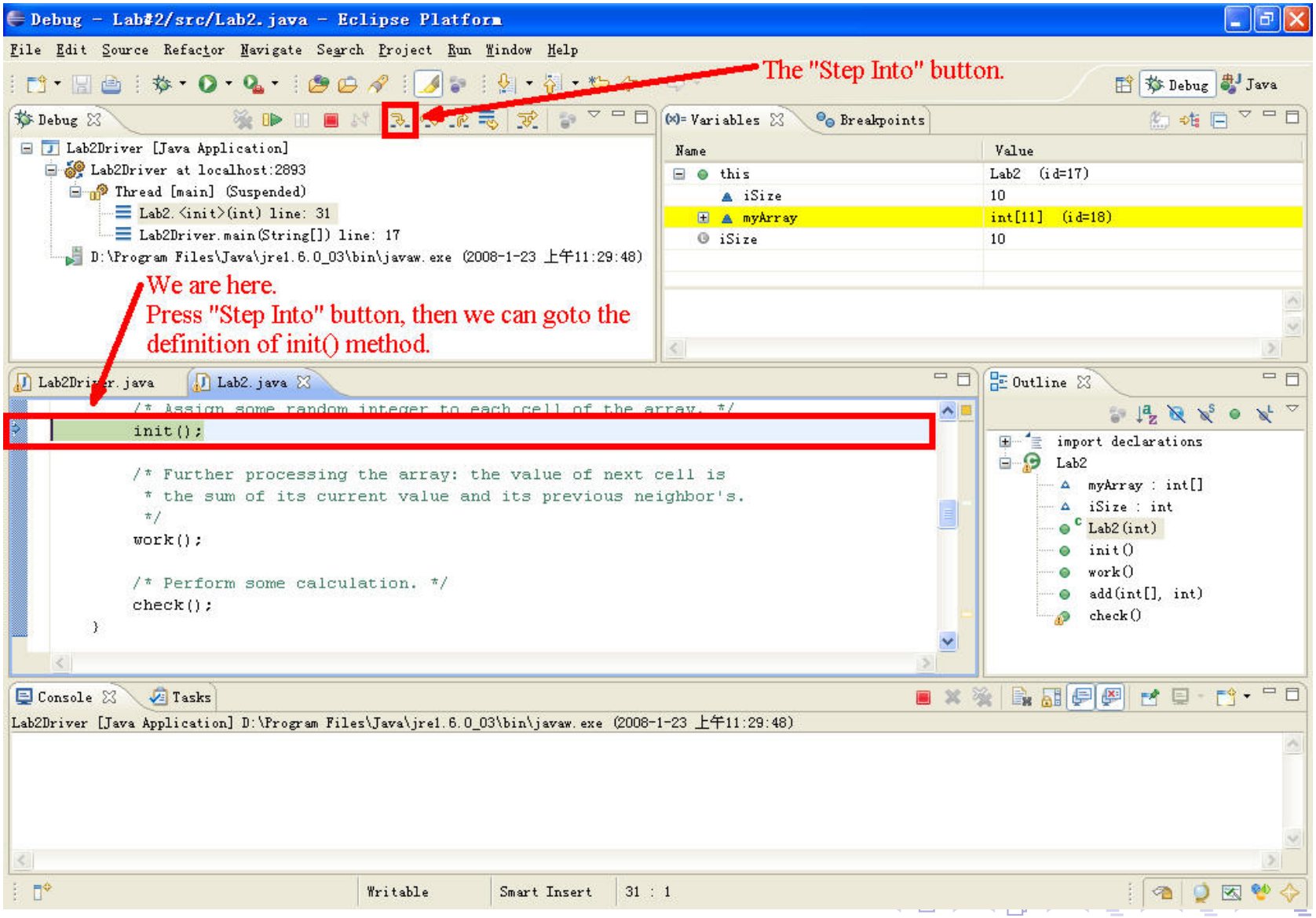
Step Over


Debug - Lab#2/src/Lab2.java - Eclipse Platform
File Edit Source Refactor Navigate Search Project Run Window Help
The "Step Over" button.
Debug
Java
Lab2Driver [Java Application]
Lab2Driver at localhost:1954
Thread [main] (Suspended (breakpoint at line 25 in Lab2))
Lab2.<init>(int) line: 25
Lab2Driver.main(String[]) line: 17
D:\Program Files\Java\jre1.6.0_03\bin\javaw.exe (2008-1-23 上午11:10:13)
Variables
Breakpoints
Name
Value
this
Lab2 (id=17)
iSize
11
myArray
null
iSize
10
Lab2Driver.java
Lab2.java
public Lab2(int iSize){
this.iSize = iSize;
/* Initialize the array. */
myArray = new int[iSize + 1];
/* Assign some random integer to each cell of the array. */
init();
We are here.
Outline
import declarations
Lab2
myArray : int[]
iSize : int
Lab2(int)
init()
work()
add(int[], int)
check()
Console
Tasks
Lab2Driver [Java Application] D:\Program Files\Java\jre1.6.0_03\bin\javaw.exe (2008-1-23 上午11:10:13)
To move to here, there are two ways:
1. Click twice the "Step Over" button.
2. Right click the destination line -> Run to Line.
Writable
Smart Insert
25 : 1
2008年1月23日

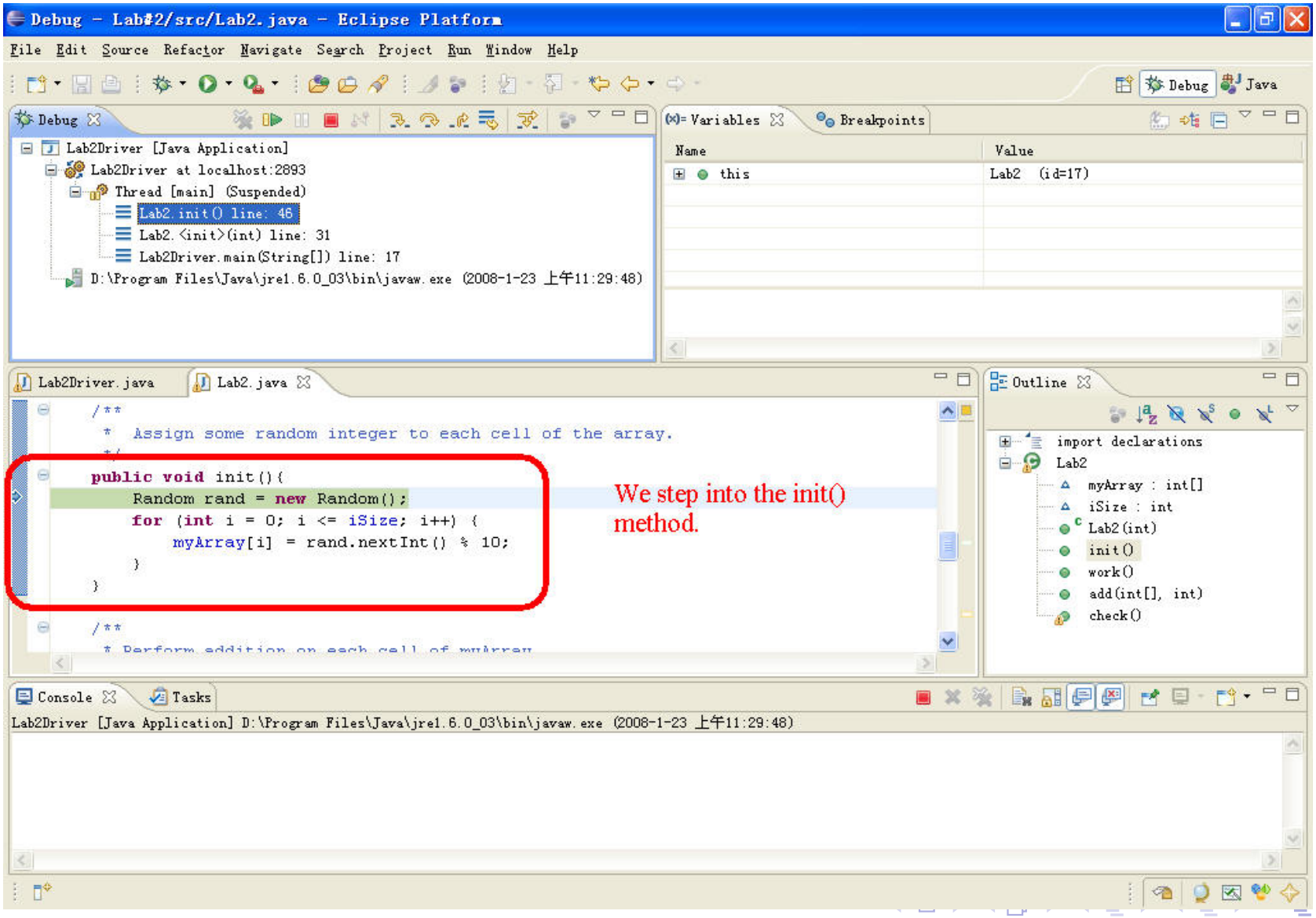
Variables


Debug - Lab#2/src/Lab2.java - Eclipse Platform
File Edit Source Refactor Navigate Search Project Run Window Help
Debug
Java
Lab2Driver [Java Application]
Lab2Driver at localhost:2893
Thread [main] (Suspended)
Lab2.<init>(int) line: 31
Lab2Driver.main(String[]) line: 17
D:\Program Files\Java\jre1.6.0_03\bin\javaw.exe (2008-1-23 上午11:29:48)
Variables
Breakpoints
Name
Value
this
Lab2 (id=17)
iSize
10
myArray
int[11] (id=18)
iSize
10
Lab2Driver.java
Lab2.java
public Lab2(int iSize){
/* Assign a new size. */
this.iSize = iSize;
/* Initialize the array. */
myArray = new int[iSize + 1];
/* Assign some random integer to each cell of the array. */
init();
/* Further processing the array: the value of next cell is
Once the value of a variable is changed, it will be highlighted.
Outline
import declarations
Lab2
myArray : int[]
iSize : int
Lab2(int)
init()
work()
add(int[], int)
check()
Console
Tasks
Lab2Driver [Java Application] D:\Program Files\Java\jre1.6.0_03\bin\javaw.exe (2008-1-23 上午11:29:48)
Writable
Smart Insert
31 : 1

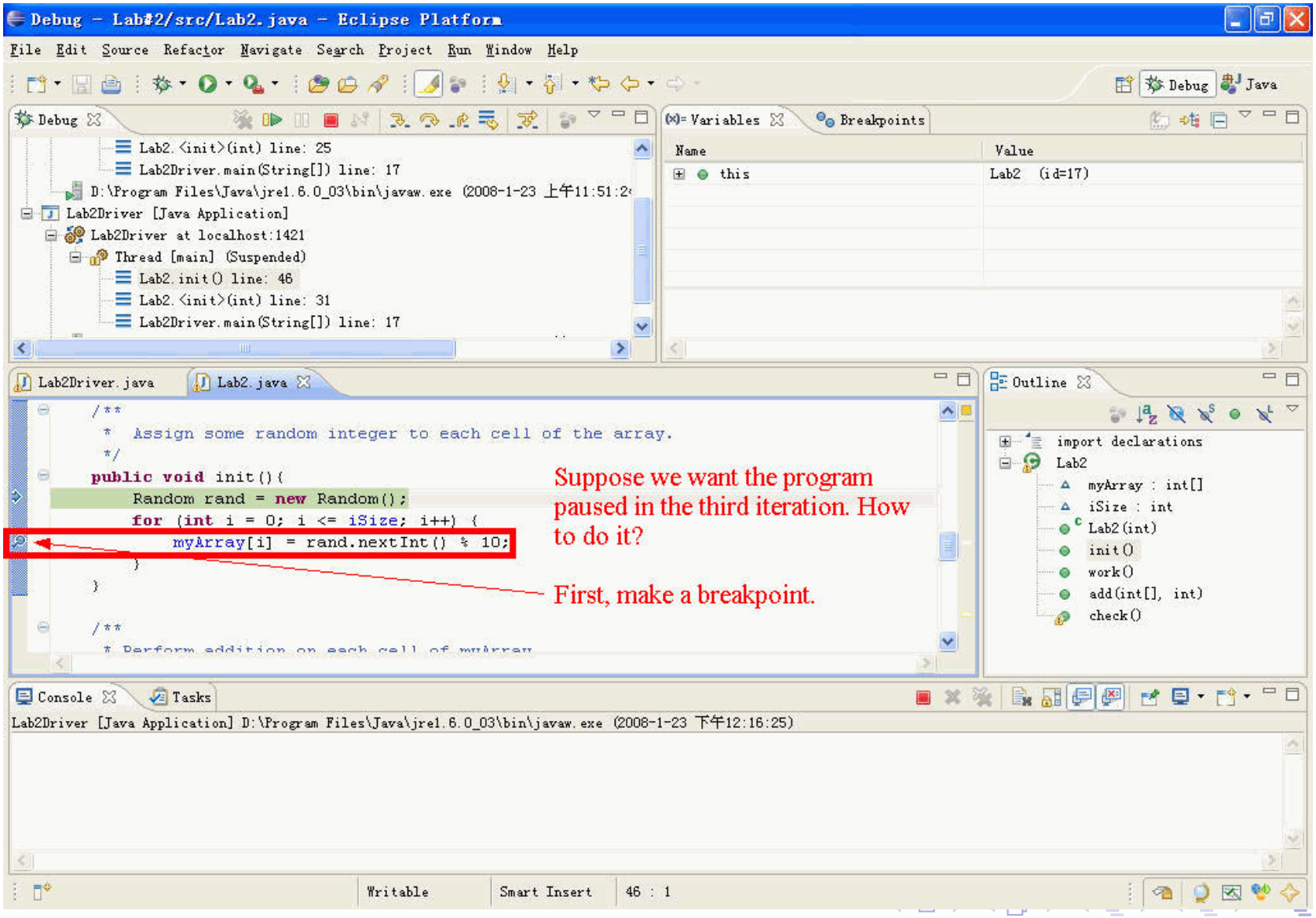
Step Into


Debug - Lab#2/src/Lab2.java - Eclipse Platform
File Edit Source Refactor Navigate Search Project Run Window Help
The "Step Into" button.
Debug
Java
Debug
Lab2Driver [Java Application]
Lab2Driver at localhost:2893
Thread [main] (Suspended)
Lab2.<init>(int) line: 31
Lab2Driver.main(String[]) line: 17
D:\Program Files\Java\jre1.6.0_03\bin\javaw.exe (2008-1-23 上午11:29:48)
We are here.
Press "Step Into" button, then we can goto the definition of init() method.
Variables
Breakpoints
Name
Value
this
Lab2 (id=17)
iSize
10
myArray
int[11] (id=18)
iSize
10
Lab2Driver.java
Lab2.java
/* Assign some random integer to each cell of the array. */
init();
/* Further processing the array: the value of next cell is
* the sum of its current value and its previous neighbor's.
*/
work();
/* Perform some calculation. */
check();
}
Outline
import declarations
Lab2
myArray : int[]
iSize : int
Lab2(int)
init()
work()
add(int[], int)
check()
Console
Tasks
Lab2Driver [Java Application] D:\Program Files\Java\jre1.6.0_03\bin\javaw.exe (2008-1-23 上午11:29:48)
Writable
Smart Insert
31 : 1

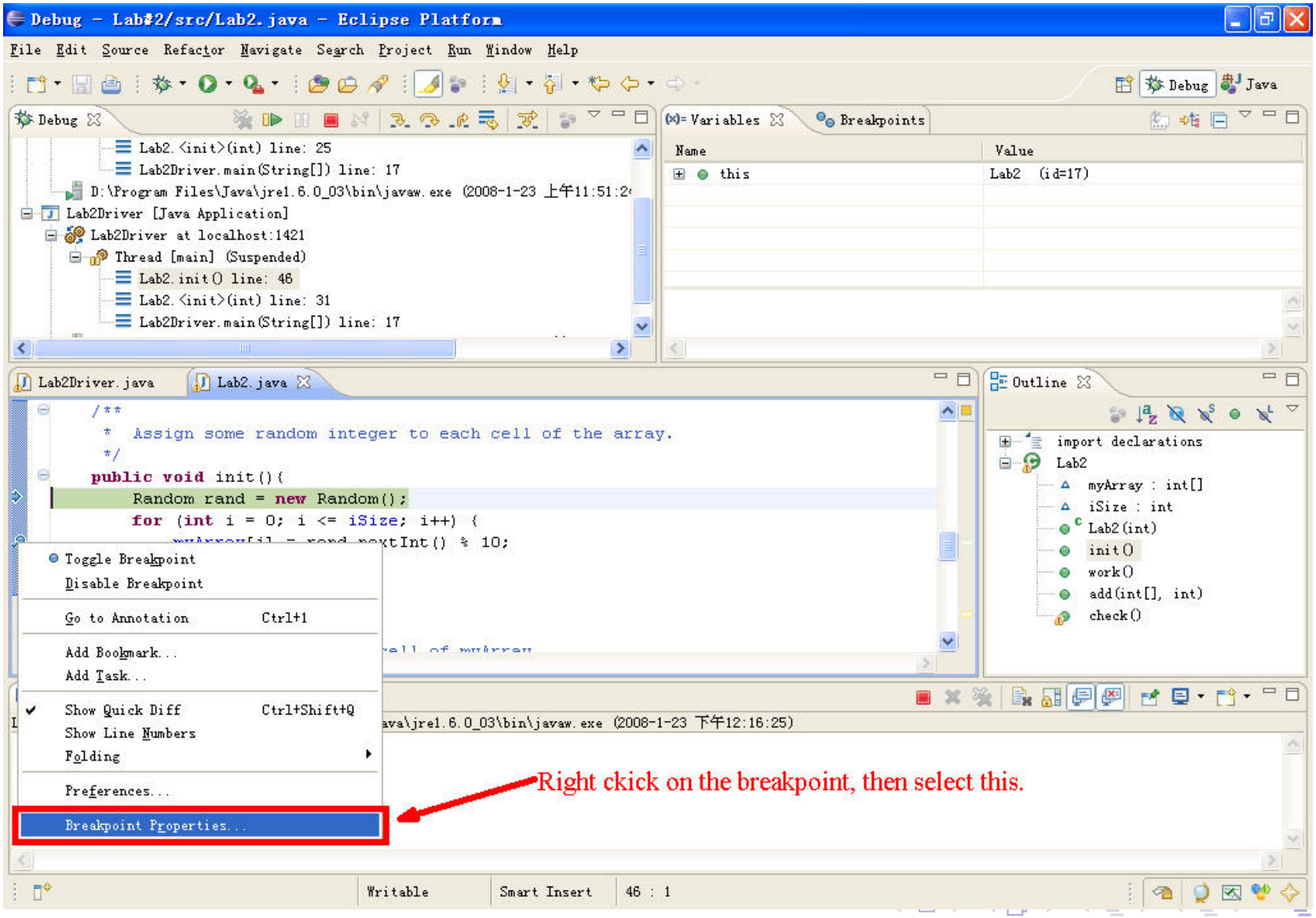
Step Into (cont'd)



Conditional Breakpoints



Conditional Breakpoints (cont'd)



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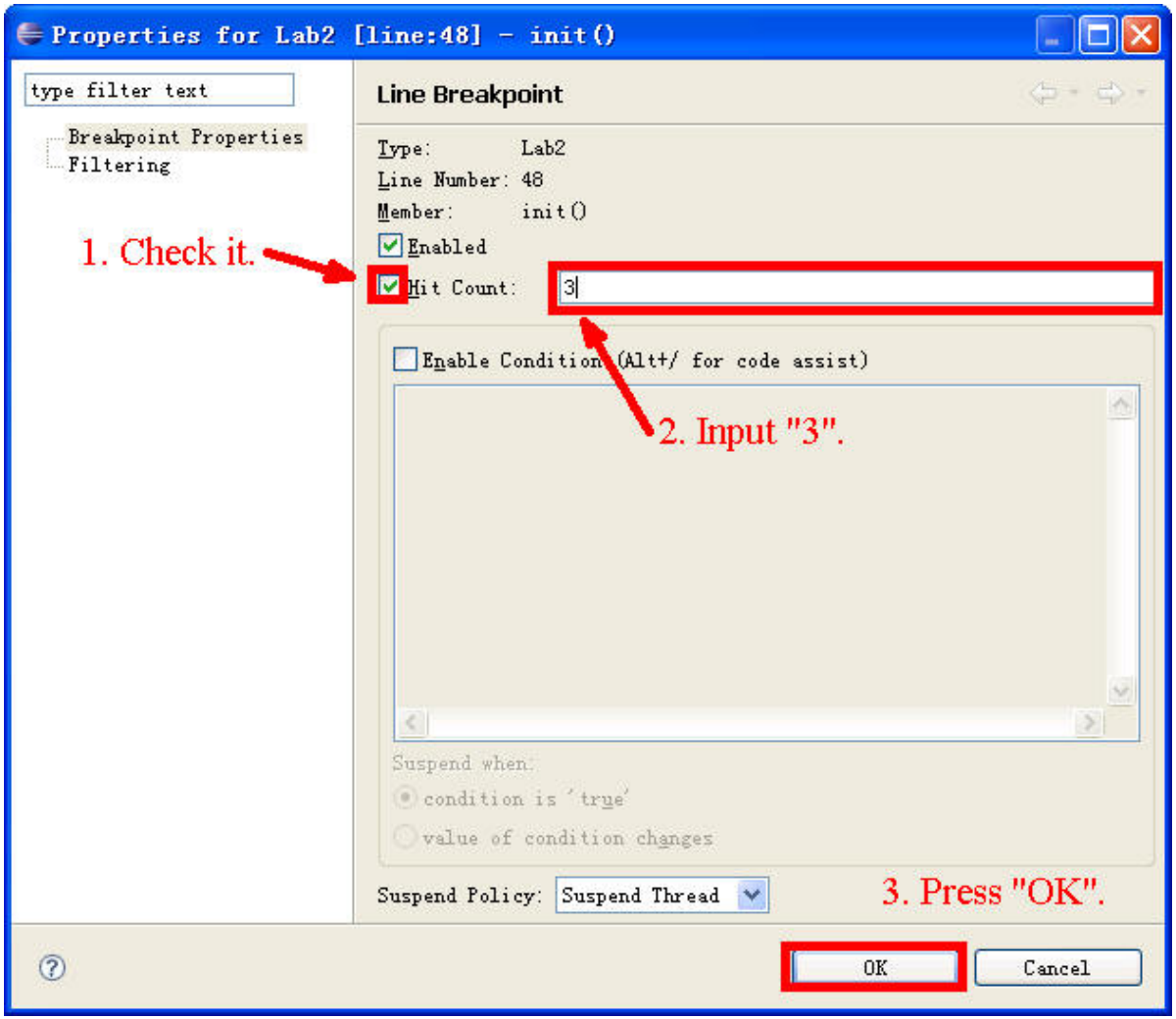

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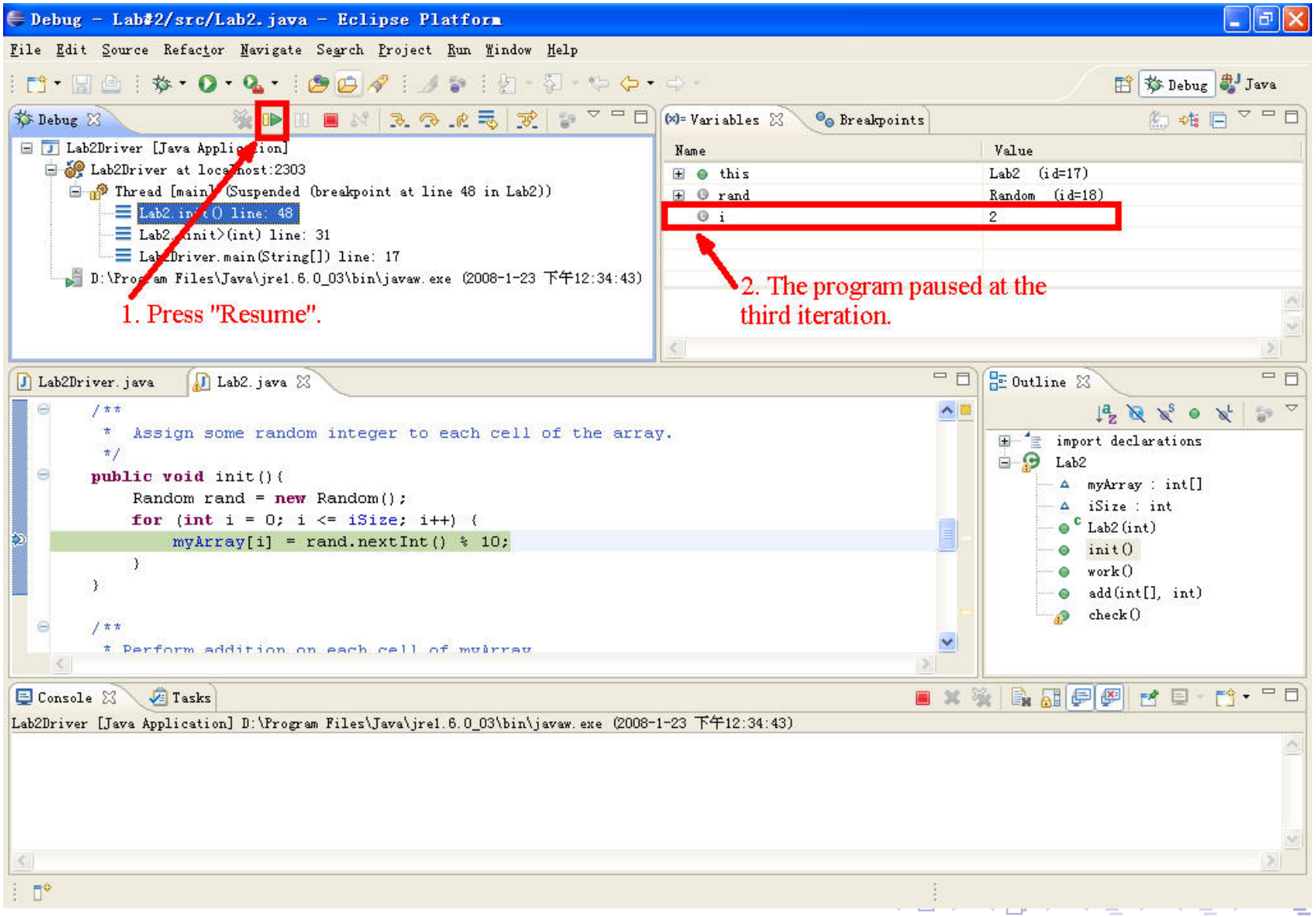
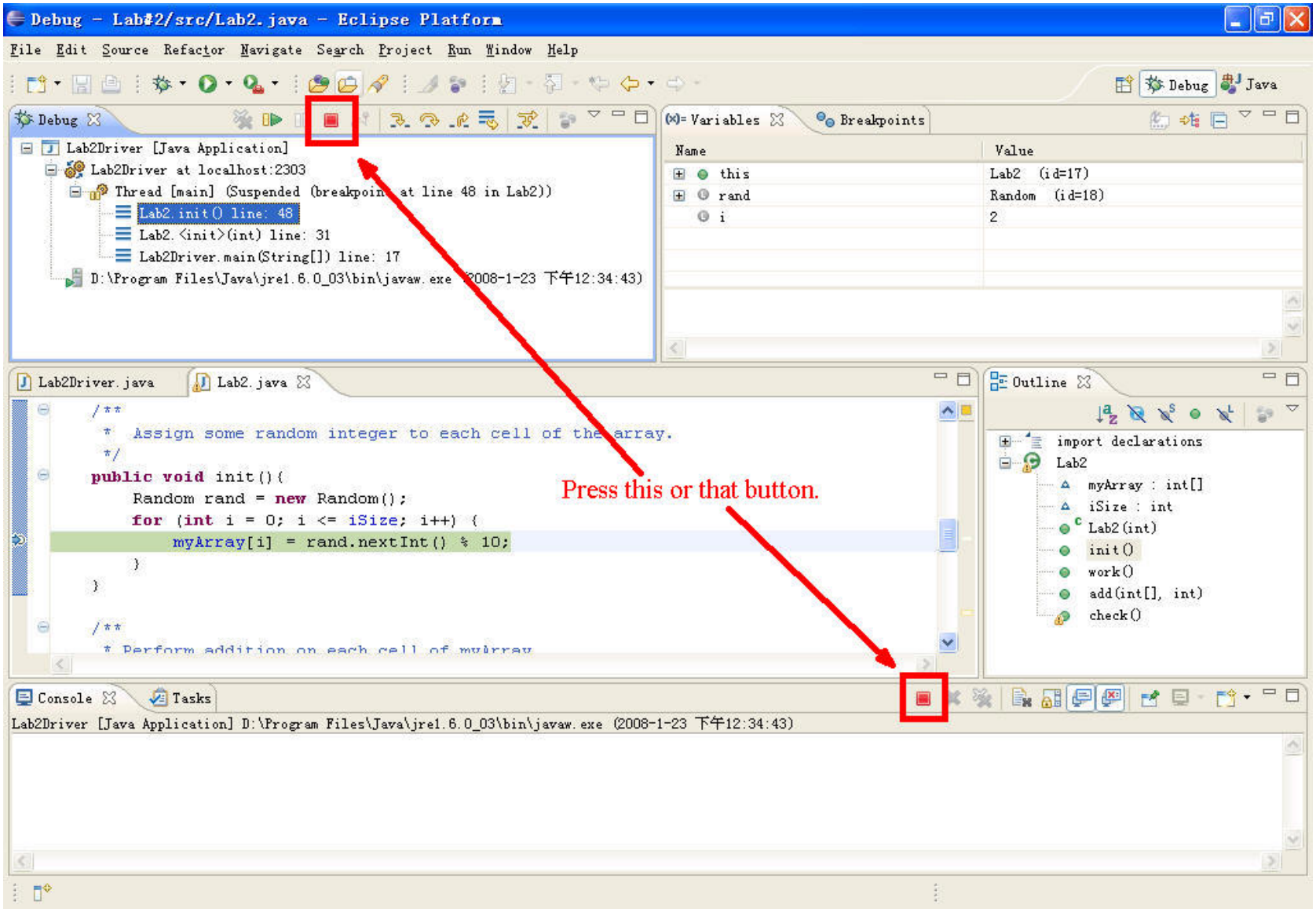


Terminate debugger



Questions?