



# Fondamenti di Informatica

*Iniziare a programmare in Java: L'ambiente ECLIPSE*

Corso di Laurea in Ingegneria dell'Informazione

A.A. 2015-2016

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Università degli Studi  
**Mediterranea**  
di Reggio Calabria

# Installare JDK

Java SE - Downloads x

www.oracle.com/technetwork/java/javase/downloads/index.html


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## Java SE Downloads



Java Platform (JDK) 8u73 / 8u74



NetBeans with JDK 8

### Java Platform, Standard Edition

#### Java SE 8u73 / 8u74

Java SE 8u73 includes important security fixes. Oracle strongly recommends that all Java SE 8 users upgrade to this release. Java SE 8u74 is a patch-set update, including all of 8u73 plus additional features (described in the release notes). [Learn more](#) ▶

- Installation Instructions
- Release Notes
- Oracle License

**JDK** [DOWNLOAD](#) ▶

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# Scaricare il tool ECLIPSE

Eclipse - The Eclipse | x

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IDE & Tools



Community of  
Projects



Collaborative  
Working  
Groups




# Avviare ECLIPSE

Strumenti collegamenti | Strumenti applicazioni | app

File | Home | Condividi | Visualizza | Gestisci | Gestisci

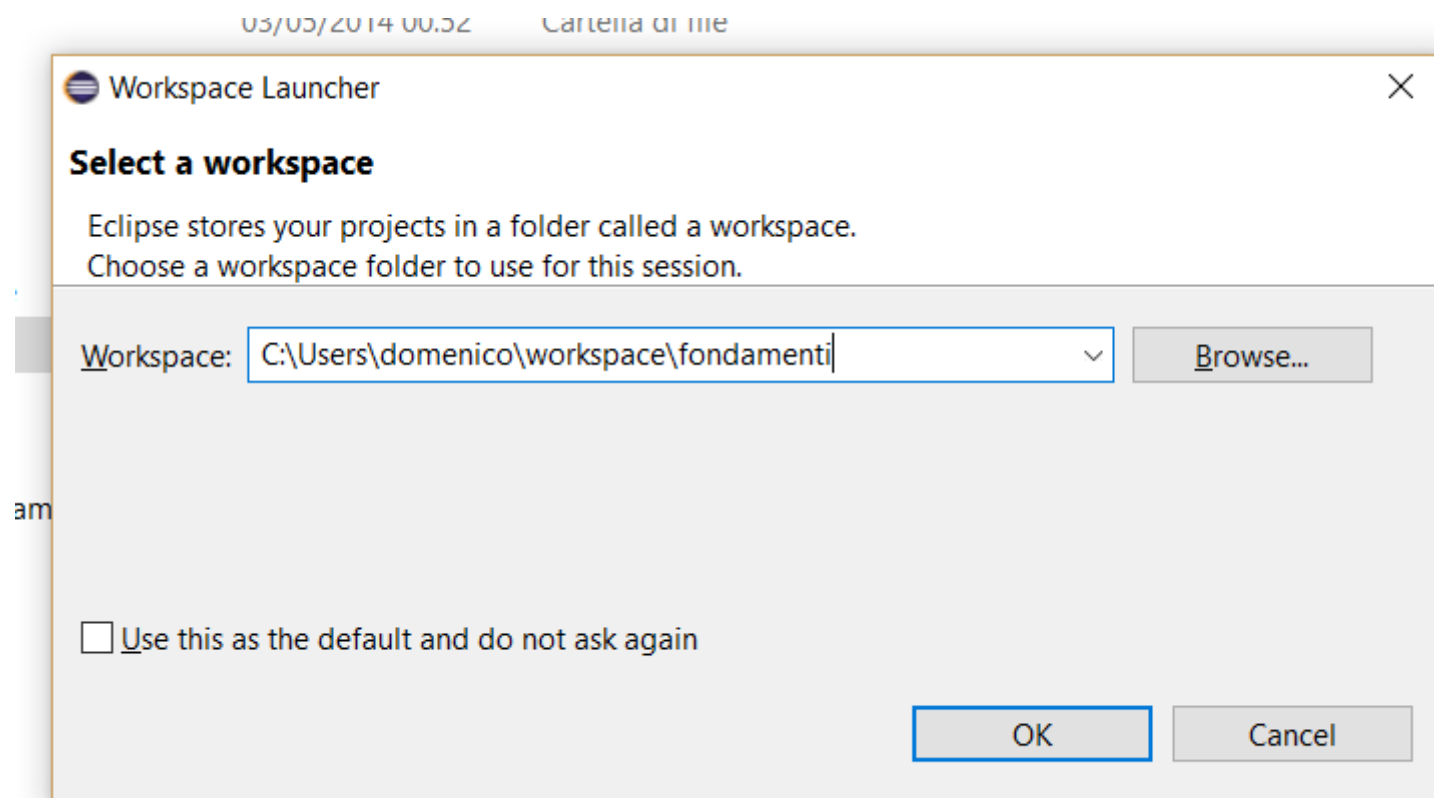
← → ↕ ↑ > app

Nome	Ultima modifica	Tipo	Dimensione
ciaoMondo	08/01/2013 06.45	Cartella di file	
JavaNNS	03/05/2014 00.52	Cartella di file	
jung2	22/01/2016 13.10	Cartella di file	
office	28/01/2016 00.49	Cartella di file	
svago	28/01/2016 00.24	Cartella di file	
Tor Browser	20/03/2015 01.35	Cartella di file	
apache-tomcat-9.0.0.M1.exe	05/1		
Eclipse Java Mars	06/1		
GIMP 2	23/0		
HeidiSQL	07/1		
VideoConverter.exe - collegamento	15/0		



The image shows a Windows File Explorer window with the 'app' folder selected. The file 'Eclipse Java Mars' is highlighted in blue. An overlay image of the Eclipse Mars 1 logo is positioned in the bottom right corner of the window. The logo features the Eclipse logo (a circle with three horizontal lines) and the text 'eclipse MARS.1' on a dark, space-themed background.

# Scegliere un Workspace



# Creare un nuovo progetto

Resource - Eclipse

File Edit Navigate Search Project Run Window Help

New	Alt+Shift+N >	Project...
Open File...		Folder
Close	Ctrl+W	File
Close All	Ctrl+Shift+W	Task
Save	Ctrl+S	Untitled Text File
Save As...		Example...
Save All	Ctrl+Shift+S	Other... Ctrl+N
Revert		
Move...		
Rename...	F2	
Refresh	F5	
Convert Line Delimiters To	>	
Print...	Ctrl+P	
Switch Workspace	>	
Restart		
Import...		
Export...		
Properties	Alt+Enter	
Exit		

**Java Developers**

# Creare un nuovo progetto

Resource - Eclipse

File Edit Navigate Search Project Run Window Help

Welcome

## Welcome to the Eclipse IDE for Java Developers

[Workbench](#)

[Go to the workbench](#)

### New Project

Select a wizard

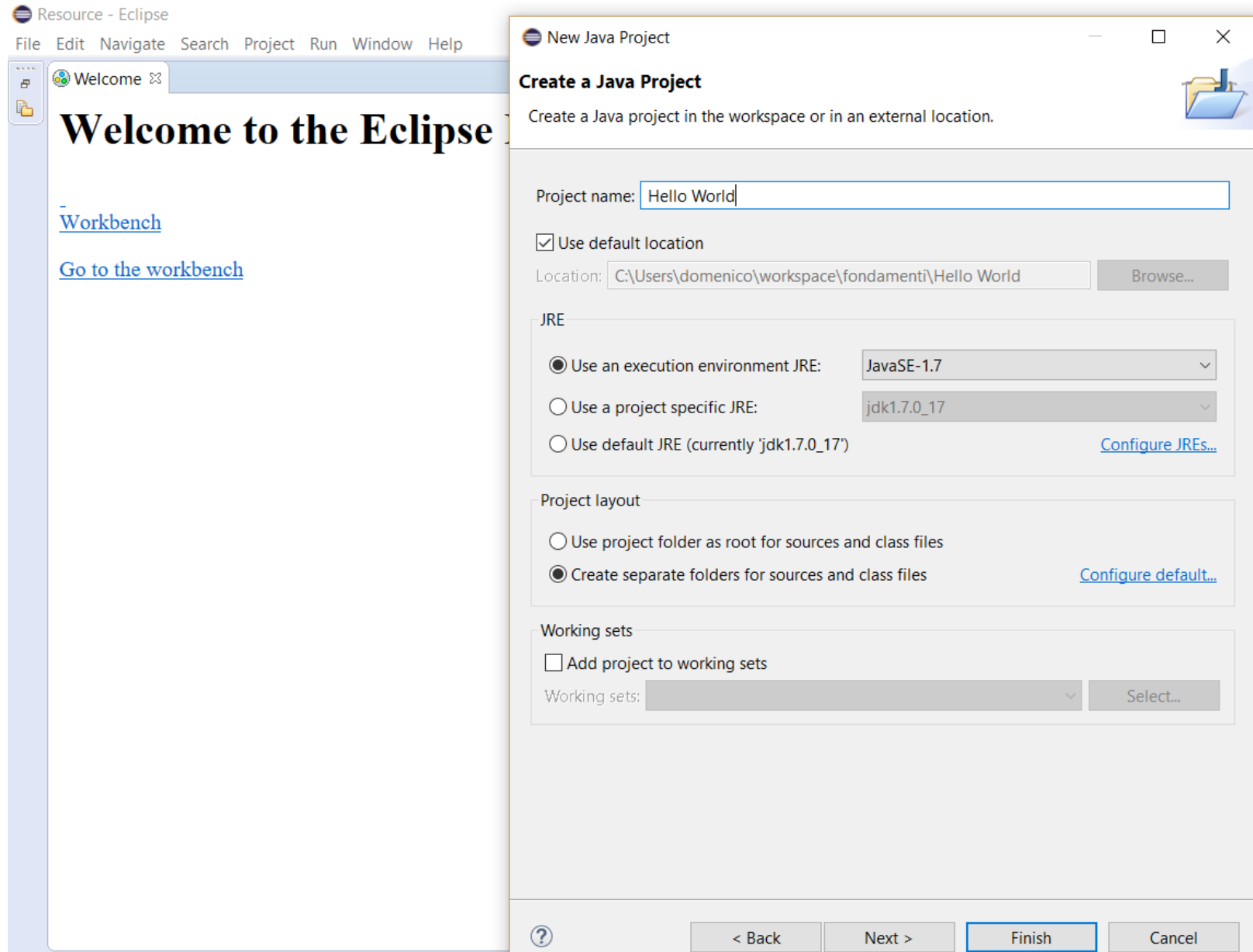
Create a Java project

Wizards:

- > General
- > Gradle
- ▼ Java
  - Java Project
  - Java Project from Existing Ant Buildfile
- > Maven
- > Examples

< Back Next > Finish Cancel

# Creare un nuovo progetto





# Creare un nuovo progetto

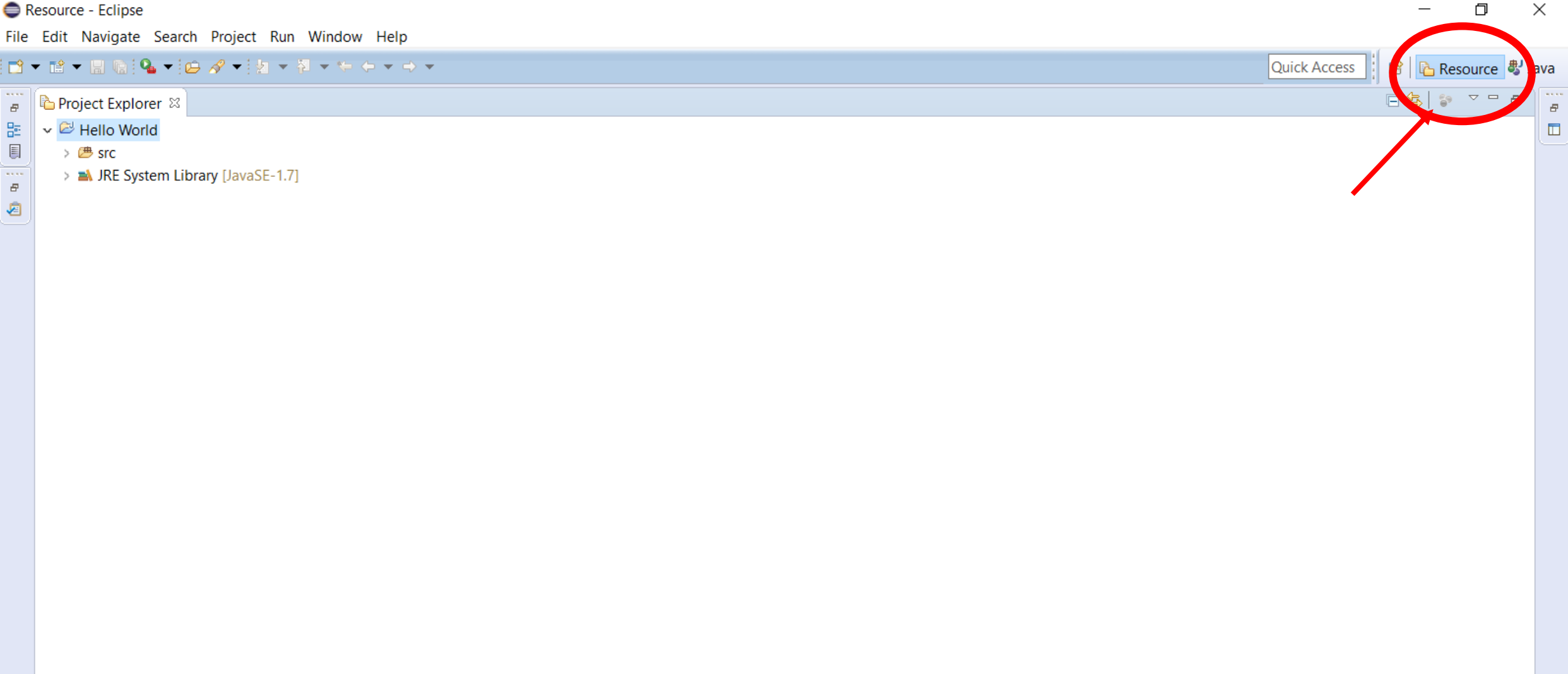
The screenshot shows the Eclipse IDE interface. The main window is titled "Resource - Eclipse" and has a menu bar with "File", "Edit", "Navigate", "Search", "Project", "Run", "Window", and "Help". The left sidebar shows a "Welcome" tab with the text "Welcome to the Eclipse" and links for "Workbench" and "Go to the workbench".

In the center, the "New Java Project" wizard is open. The title bar says "New Java Project". The main heading is "Create a Java Project" with the instruction "Create a Java project in the workspace or in an external location." The "Project name:" field contains "Hello World". The "Use default location" checkbox is checked. The "Location:" field shows "C:\Users\domenico\workspace\fondamenti\Hello World" with a "Browse..." button next to it.

Overlaid on the wizard is a dialog box titled "Open Associated Perspective?". It contains a question mark icon and the text: "This kind of project is associated with the Java perspective. This perspective is designed to support Java development. It offers a Package Explorer, a Type Hierarchy, and Java-specific navigation actions. Do you want to open this perspective now?". There is a "Remember my decision" checkbox which is checked. At the bottom of the dialog are "Yes" and "No" buttons.

At the bottom of the wizard, there is a "Working sets" section with an unchecked "Add project to working sets" checkbox. Below it is a "Working sets:" dropdown menu and a "Select..." button. At the very bottom of the wizard are navigation buttons: a help icon, "< Back", "Next >", "Finish" (highlighted in blue), and "Cancel".

# Esplorare le risorse



# Aprire l'ambiente di lavoro e creare una Classe

The image shows the Eclipse IDE interface. The 'File' menu is open, and the 'New' option is selected, leading to a submenu where 'Class' is highlighted. In the top right corner, the 'Java' icon in the toolbar is circled in red, with a red arrow pointing to it from the right. The main workspace is empty, and the 'Task List' and 'Find' panels are visible on the right side.

Java - Eclipse

File Edit Navigate Search Project Run Window Help

New Alt+Shift+N >

Open File...

Close Ctrl+W

Close All Ctrl+Shift+W

Save Ctrl+S

Save As...

Save All Ctrl+Shift+S

Revert

Move...

Rename... F2

Refresh F5

Convert Line Delimiters To >

Print... Ctrl+P

Switch Workspace >

Restart

Import...

Export...

Properties Alt+Enter

Exit

Java Project

Project...

Package

Class

Interface

Enum

Annotation

Source Folder

Java Working Set

Folder

File

Untitled Text File

JUnit Test Case

Task

Example...

Other... Ctrl+N

Quick Access

Resource

Java

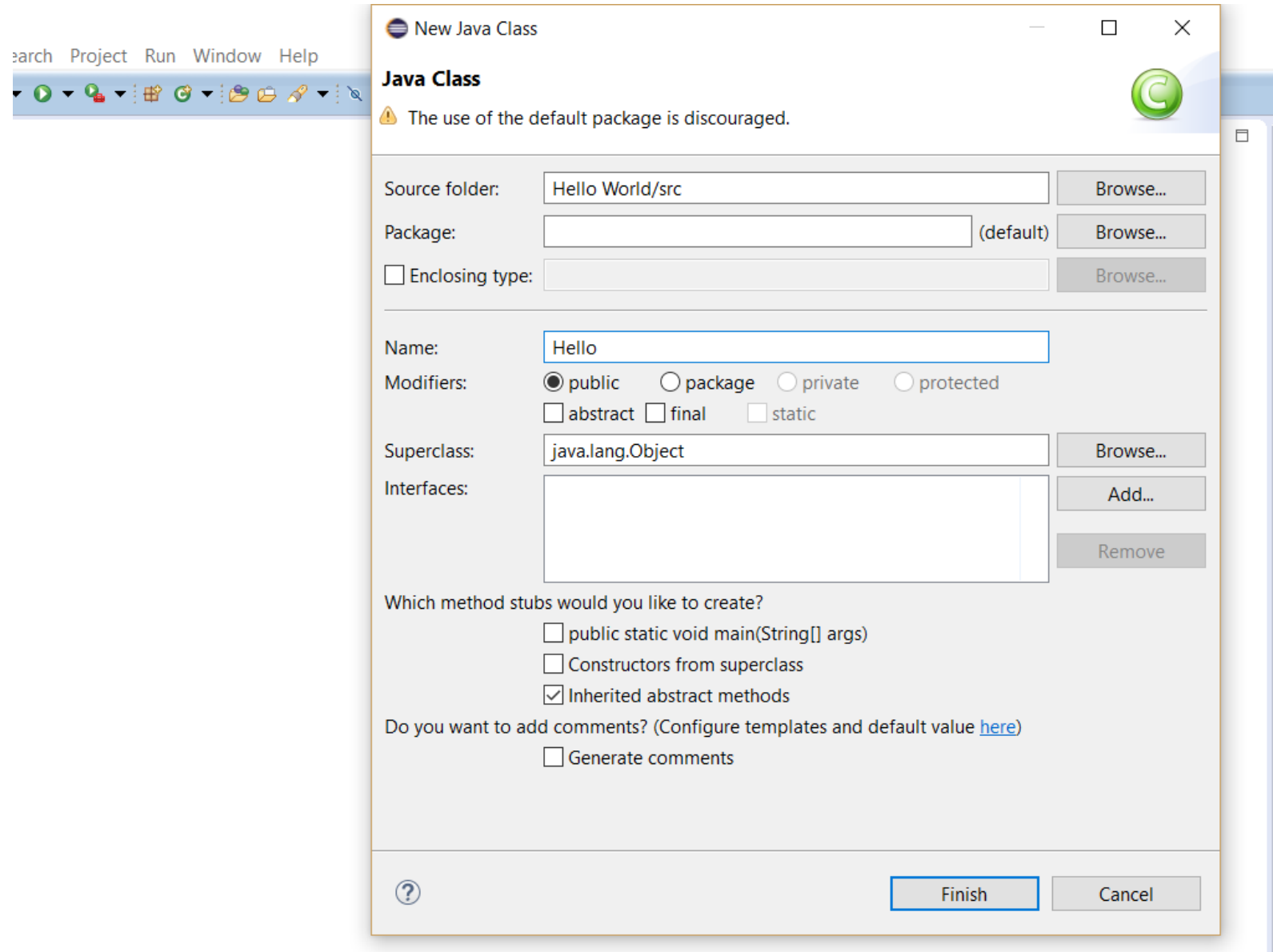
Task List

Find

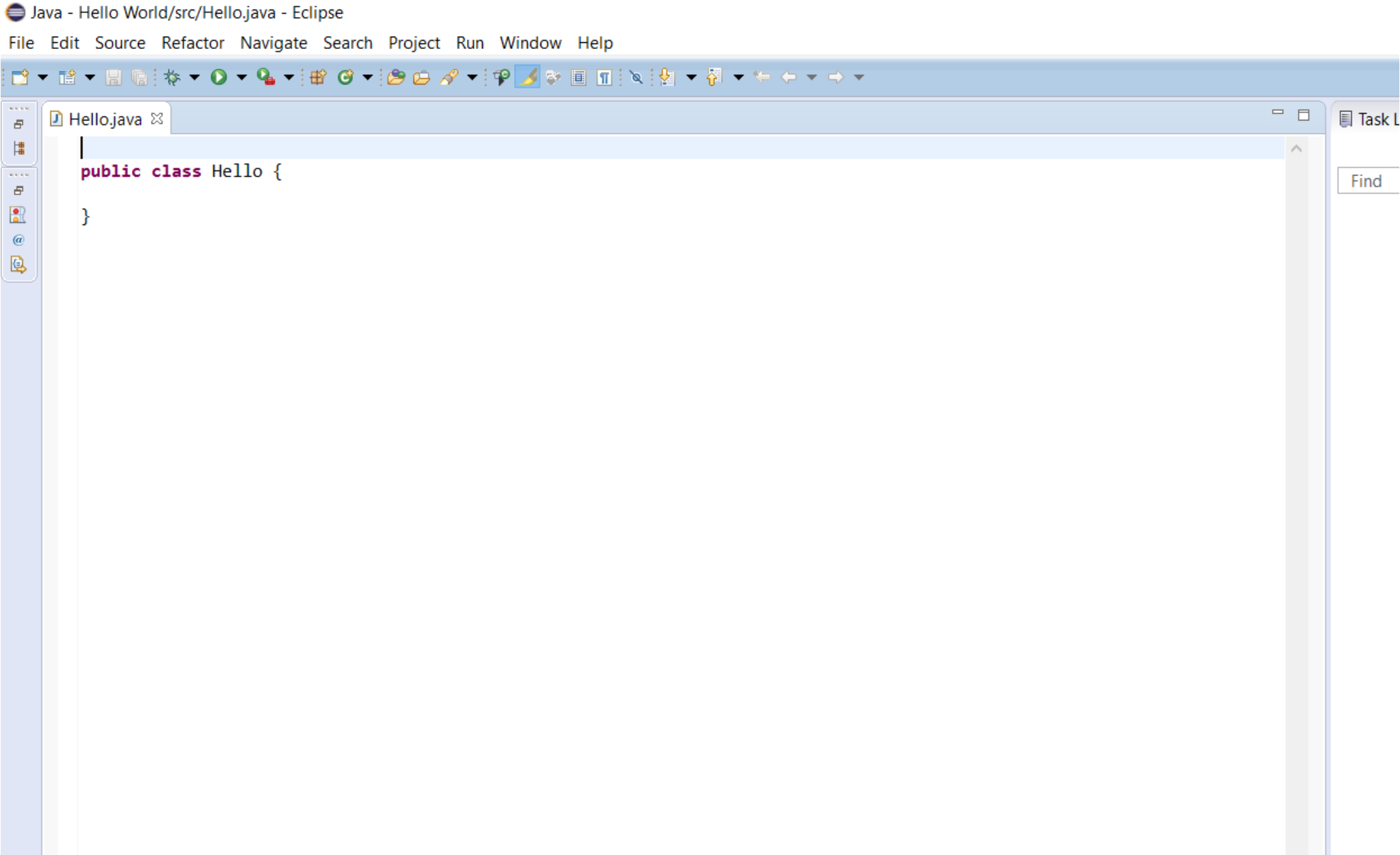
All

Activate...

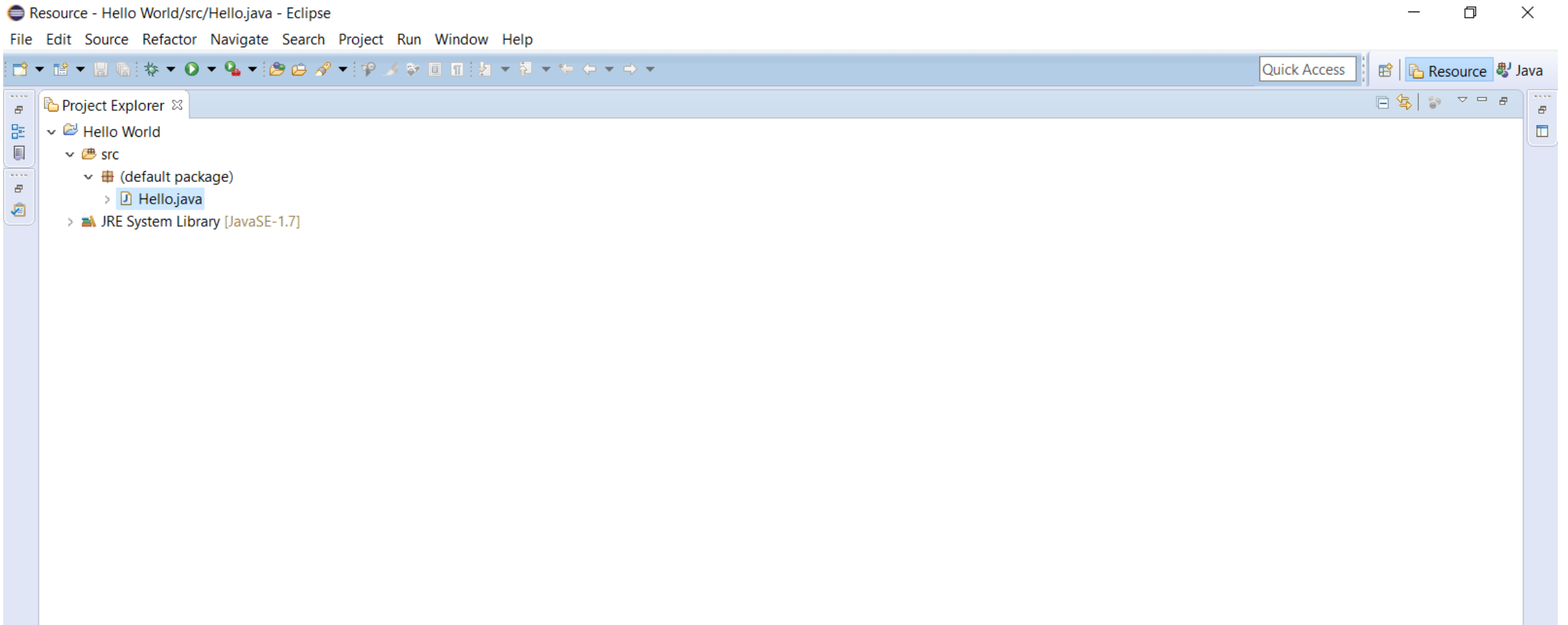
# Aprire l'ambiente di lavoro e creare una Classe



# Pronti a scrivere codice Java

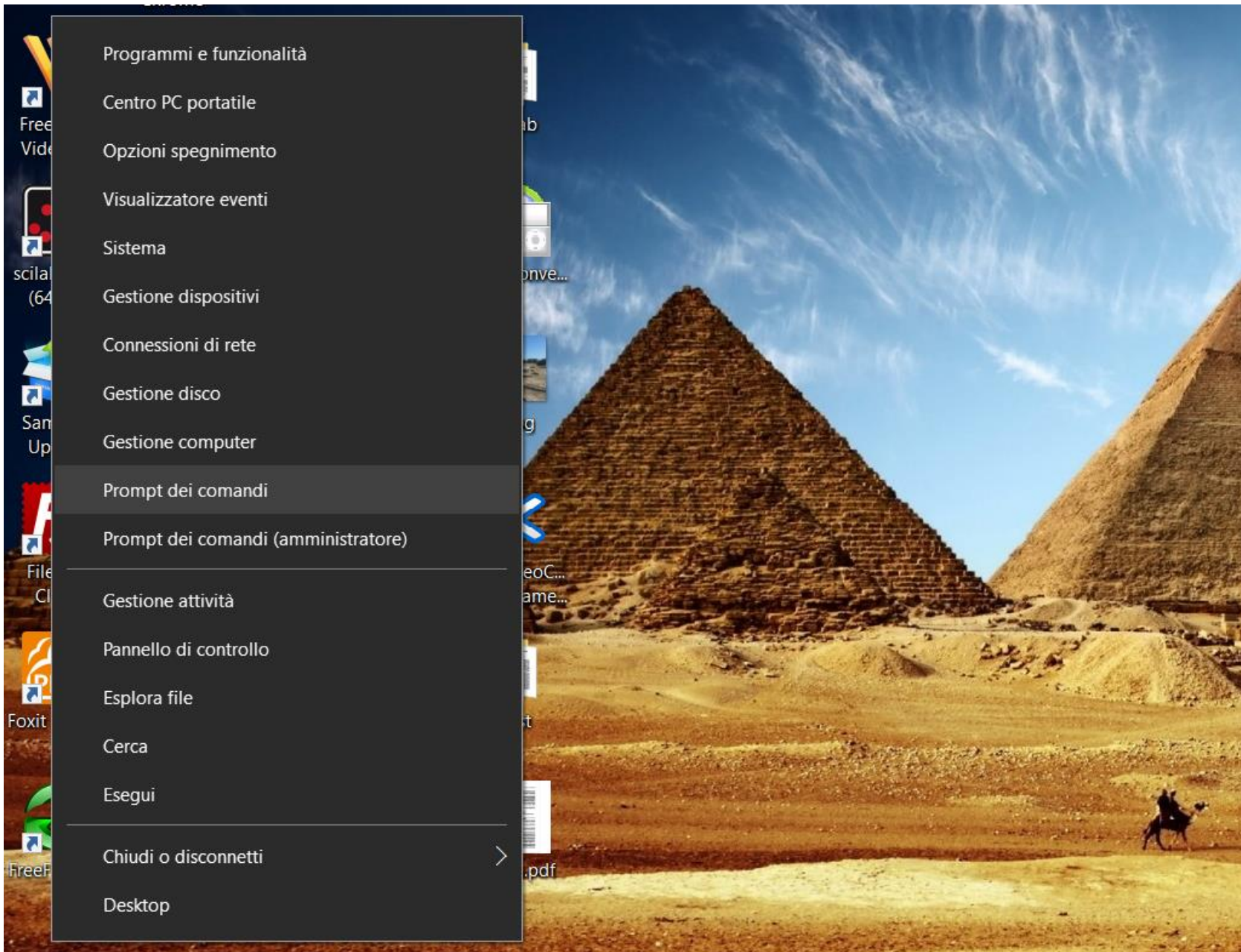


# Il file sorgente





# Aprire il prompt dei comandi



# Individuare la cartella del progetto

slide2.pptx - PowerPoint

File Home Inserisci Progettazione Transizioni Animazioni Presentazione Revisione Visualizza Foxit Reader PDF Che cosa

ncolla Appunti

2 Apri l'ambiente di lavoro

3 Pronti a scrivere codice?

4 Il file scartato

5 Apri il prompt dei comandi

6 Apri il prompt dei comandi

```
Prompt dei comandi
Microsoft Windows [Versione 10.0.10586]
(c) 2015 Microsoft Corporation. Tutti i diritti sono riservati.

C:\Users\domenico>cd workspace\fondamenti

C:\Users\domenico\workspace\fondamenti>dir
Il volume nell'unit  C non ha etichetta.
Numero di serie del volume: 780C-D84B

Directory di C:\Users\domenico\workspace\fondamenti

08/03/2016  11.40    <DIR>          .
08/03/2016  11.40    <DIR>          ..
08/03/2016  11.33    <DIR>          .metadata
08/03/2016  11.40    <DIR>          Hello World
                0 File                0 byte
                4 Directory   91.039.166.464 byte disponibili

C:\Users\domenico\workspace\fondamenti>cd Hello World
C:\Users\domenico\workspace\fondamenti\Hello World>
```

# Individuare il file sorgente Hello.java

```
Prompt dei comandi
08/03/2016 11.40 <DIR> .
08/03/2016 11.40 <DIR> ..
08/03/2016 11.40          301 .classpath
08/03/2016 11.40          387 .project
08/03/2016 11.40 <DIR> .settings
08/03/2016 11.56 <DIR> bin
08/03/2016 11.56 <DIR> src
                2 File          688 byte
                5 Directory  91.047.686.144 byte disponibili

C:\Users\domenico\workspace\fondamenti\Hello World>cd src

C:\Users\domenico\workspace\fondamenti\Hello World\src>dir
Il volume nell'unit  C non ha etichetta.
Numero di serie del volume: 780C-D84B

Directory di C:\Users\domenico\workspace\fondamenti\Hello World\src

08/03/2016 11.56 <DIR> .
08/03/2016 11.56 <DIR> ..
08/03/2016 11.56          29 Hello.java
                1 File          29 byte
                2 Directory  91.047.682.048 byte disponibili

C:\Users\domenico\workspace\fondamenti\Hello World\src>
```

# Individuare la cartella di java standard edition

The screenshot shows a Windows File Explorer window titled 'jdk1.8.0\_73'. The address bar indicates the path: 'Questo PC > Windows (C:) > Programmi > Java > jdk1.8.0\_73'. The left sidebar shows the navigation pane with 'Programmi' selected. The main pane displays a list of files and folders:

Nome	Ultima modifica	Tipo	Dimensione
<input checked="" type="checkbox"/> bin	08/03/2016 14:08	Cartella di file	
db	08/03/2016 14:08	Cartella di file	
include	08/03/2016 14:08	Cartella di file	
jre	08/03/2016 14:08	Cartella di file	
lib	08/03/2016 14:08	Cartella di file	
COPYRIGHT	29/01/2016 18:09	File	
javafx-src.zip	08/03/2016 14:08	Cartella compressa	4.9
LICENSE	08/03/2016 14:08	File	
README.html	08/03/2016 14:08	File HTML	
release	08/03/2016 14:08	File	
src.zip	29/01/2016 18:09	Cartella compressa	20.7
THIRDPARTYLICENSEREADME.txt	08/03/2016 14:08	Documento di testo	1
THIRDPARTYLICENSEREADME-JAVAFX.txt	08/03/2016 14:08	Documento di testo	1

At the bottom of the window, it shows '13 elementi' and '1 elemento selezionato'. The taskbar at the bottom indicates 'Gruppo di lavoro: WORKGROUP'.

# Impostare la variabile d'ambiente Path

The image shows a Windows desktop environment with the 'Sistema' (System) control panel window open. The 'Proprietà del sistema' (System Properties) dialog box is displayed, with the 'Avanzate' (Advanced) tab selected. The 'Variabili d'ambiente...' (Environment Variables) button is clicked, opening the 'Variabili d'ambiente' dialog box. This dialog shows two sections: 'Variabili dell'utente per domen...' (User variables for domain) and 'Variabili di sistema' (System variables). In the 'Variabili dell'utente' section, the 'Path' variable is selected. The 'Modifica...' (Modify) button is clicked, opening the 'Modifica variabile utente' (Modify user variable) dialog box. This dialog shows the 'Nome variabile:' (Variable name) as 'Path' and the 'Valore variabile:' (Variable value) as '%USERPROFILE%\AppData\Local\Programs\MiKTeX 2.9\miktex\bin;c:\program files\java\jdk1.8.0\_73\bin'. The 'OK' button is highlighted.

**Proprietà del sistema**

Protezione sistema | Connessione remota

Nome computer | Hardware | Avanzate

Per poter eseguire la maggior parte delle modifiche seguenti, è necessario accedere come amministratore.

**Prestazioni**  
Effetti visivi, pianificazione processore, utilizzo memoria e memoria virtuale  
Impostazioni...

**Profili utente**  
Impostazioni desktop basate sul tipo di accesso effettuato  
Impostazioni...

**Avvio e ripristino**  
Avvio del sistema, errori di sistema e informazioni di debug  
Impostazioni...

Variabili d'ambiente...

**Variabili d'ambiente**

Variabili dell'utente per domen...

Variabile	Valore
MOZ_PLUGIN_PATH	C:\Program Files (x86)\Foxit Software\Foxi...
Path	C:\Users\domen\AppData\Local\Programs\...
TEMP	%USERPROFILE%\AppData\Local\Temp
TMP	%USERPROFILE%\AppData\Local\Temp

Nuova... Modifica... Elimina

Variabili di sistema

Variabile	Valore
ComSpec	C:\windows\system32\cmd.exe
NUMBER_OF_PRO...	4
OS	Windows_NT
Path	C:\ProgramData\Oracle\Java\javapath;C:\...
PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;...

Nuova... Modifica... Elimina

**Modifica variabile utente**

Nome variabile: Path

Valore variabile: %USERPROFILE%\AppData\Local\Programs\MiKTeX 2.9\miktex\bin;c:\program files\java\jdk1.8.0\_73\bin

OK Annulla



# Compilare il file sorgente da riga di comando

Prompt dei comandi

```
Microsoft Windows [Versione 10.0.10586]
(c) 2015 Microsoft Corporation. Tutti i diritti sono riservati.

C:\Users\domenico>cd workspace

C:\Users\domenico\workspace>cd fondamenti

C:\Users\domenico\workspace\fondamenti>cd Hello World

C:\Users\domenico\workspace\fondamenti\Hello World>cd src

C:\Users\domenico\workspace\fondamenti\Hello World\src>javac Hello.java

C:\Users\domenico\workspace\fondamenti\Hello World\src>dir
Il volume nell'unità C non ha etichetta.
Numero di serie del volume: 780C-D84B

Directory di C:\Users\domenico\workspace\fondamenti\Hello World\src

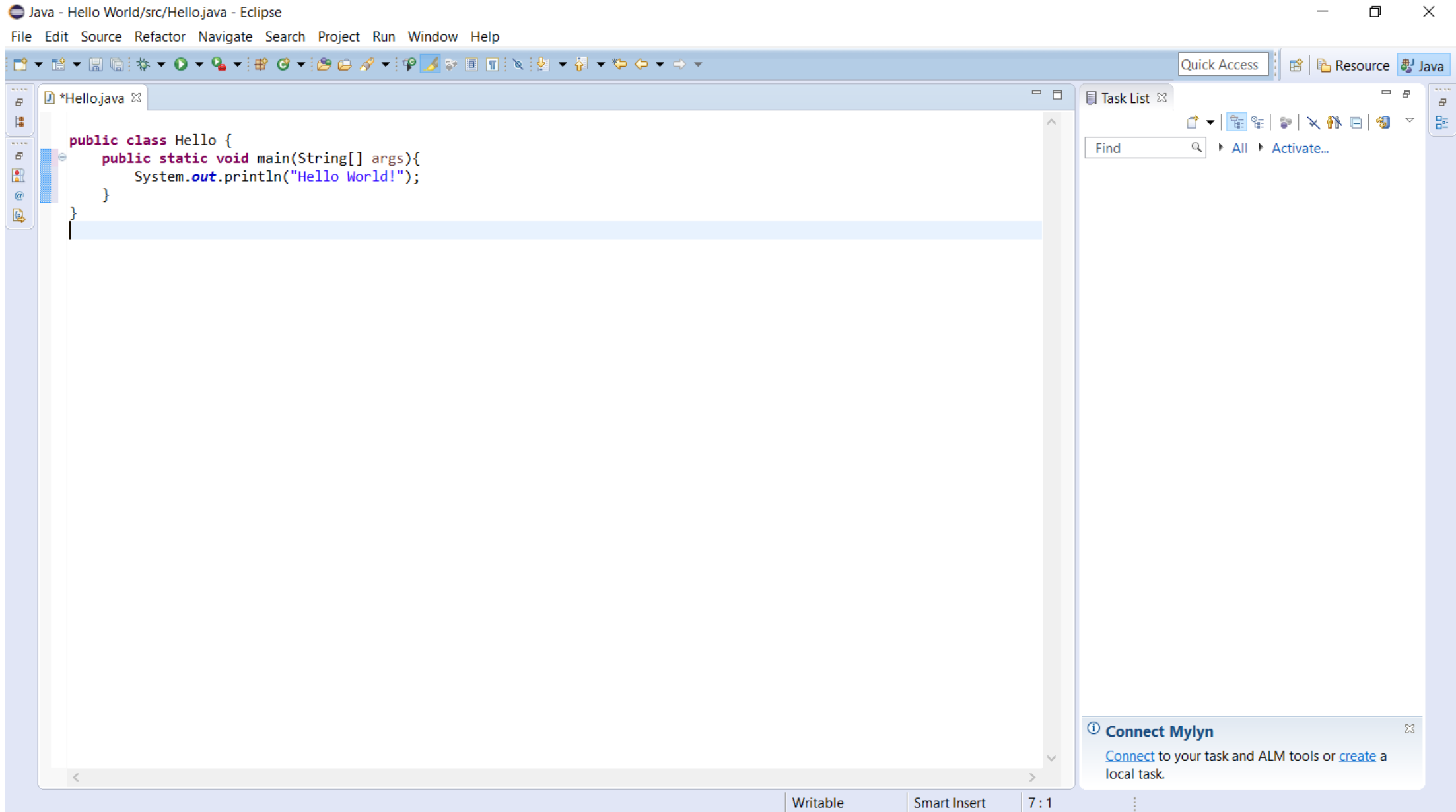
09/03/2016  22.12    <DIR>          .
09/03/2016  22.12    <DIR>          ..
09/03/2016  22.12                184 Hello.class
08/03/2016  11.56                29 Hello.java
           2 File                213 byte
           2 Directory  87.334.494.208 byte disponibili

C:\Users\domenico\workspace\fondamenti\Hello World\src>java Hello
Errore: il metodo principale non è stato trovato nella classe Hello. Definire il metodo principale come:
    public static void main(String[] args)
altrimenti una classe applicazione JavaFX deve estendere javafx.application.Application

C:\Users\domenico\workspace\fondamenti\Hello World\src>
```



# Inserire un metodo main nella classe HelloWorld



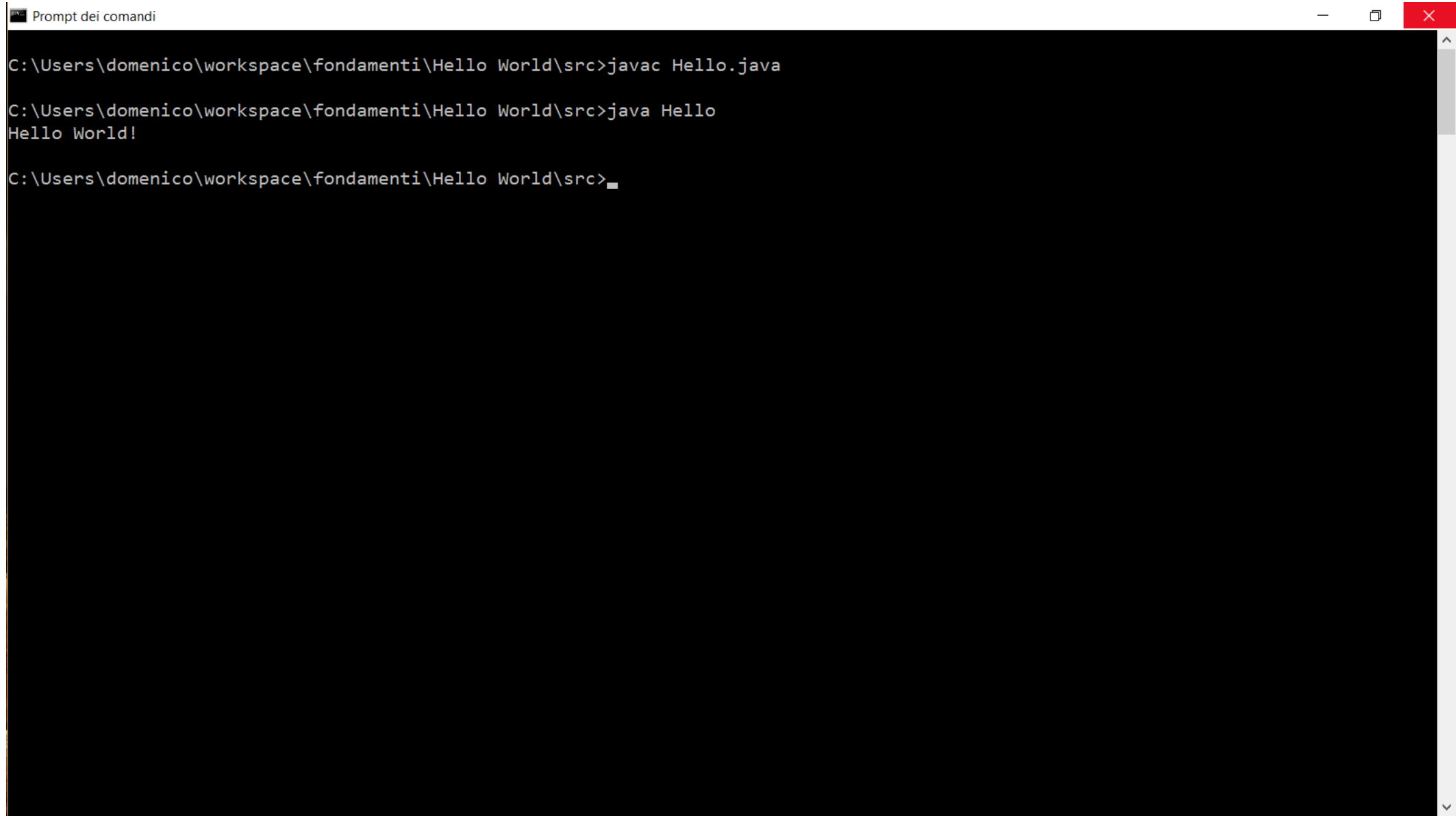
The screenshot shows the Eclipse IDE interface. The main editor window displays the following Java code:

```
public class Hello {  
    public static void main(String[] args){  
        System.out.println("Hello World!");  
    }  
}
```

The IDE includes a menu bar (File, Edit, Source, Refactor, Navigate, Search, Project, Run, Window, Help), a toolbar, and a sidebar with icons for Explorer, Package Explorer, and Search. The right-hand side features a Task List window with a search field and a 'Connect Mylyn' notification at the bottom right.

Writable | Smart Insert | 7 : 1

# Riprovare a compilare ed eseguire da riga di comando



```
Prompt dei comandi

C:\Users\domenico\workspace\fondamenti\Hello World\src>javac Hello.java

C:\Users\domenico\workspace\fondamenti\Hello World\src>java Hello
Hello World!

C:\Users\domenico\workspace\fondamenti\Hello World\src>
```