

Linguaggi di Programmazione mod.1

Prima esercitazione 2020

Prerequisito:

- Dovete avere con voi il vostro Laptop
- Dovete avere già scaricato NetBeans 8.2 (la versione Java SE è sufficiente)

netbeans.org/downloads/8.2/

NetBeans IDE 8.2 Download

8.1 | 8.2 | Development | Archive

Email address (optional):

Subscribe to newsletters: ☒ Monthly ☐ Weekly

☒ NetBeans can contact me at this address

IDE Language: Platform:

Note: Greyed out technologies are not supported for this platform.

NetBeans IDE Download Bundles

Supported technologies *	Java SE	Java EE	HTML5/JavaScript	PHP	C/C++	All
NetBeans Platform SDK	•	•				•
Java SE	•	•				•
Java FX	•	•				•
Java EE		•				•
Java ME						—
HTML5/JavaScript		•	•	•		•
PHP			•	•		•
C/C++					•	•
Groovy						•
Java Card™ 3 Connected						—
Bundled servers						
GlassFish Server Open Source Edition 4.1.1		•				•
Apache Tomcat 8.0.27		•				•

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Free, 116 MB Free, 242 MB Free, 142 MB Free, 142 MB Free, 147 MB Free, 277 MB

Obiettivi dell'esercitazione

- Installare Netbeans
- Familiarizzare con il tool
- Creare un primo progetto Java elementare

Che differenza c'è tra Lab e Classe?

- DOVETE ESSERE ATTIVI
- HANDS-ON!
- POTETE COMUNICARE CON COMPAGNI
(incoraggiato!)
- CHIEDETE AIUTO – NESSUNA DOMANDA E' STUPIDA!
 - Chiedete **soprattutto** ai compagni!

HelloWorld vers. 1

```
package it.unitn.prog2;  
public class HelloWorldApp {  
    public static void main(String[] args) {  
        System.out.println("Hello, world!");  
    }  
}
```



Business Logic

HelloWorld vers. 2

```
package it.unitn.prog2;  
public class HelloWorldApp {  
    public HelloWorldApp() {  
        System.out.println("Hello, world!");  
    }  
    public static void main(String[] args) {  
        HelloWorldApp app = new HelloWorldApp();  
    }  
}
```

Business Logic

Perché si fa così?
Lo capiremo in dettaglio più avanti a lezione.

Il nostro IDE: Netbeans

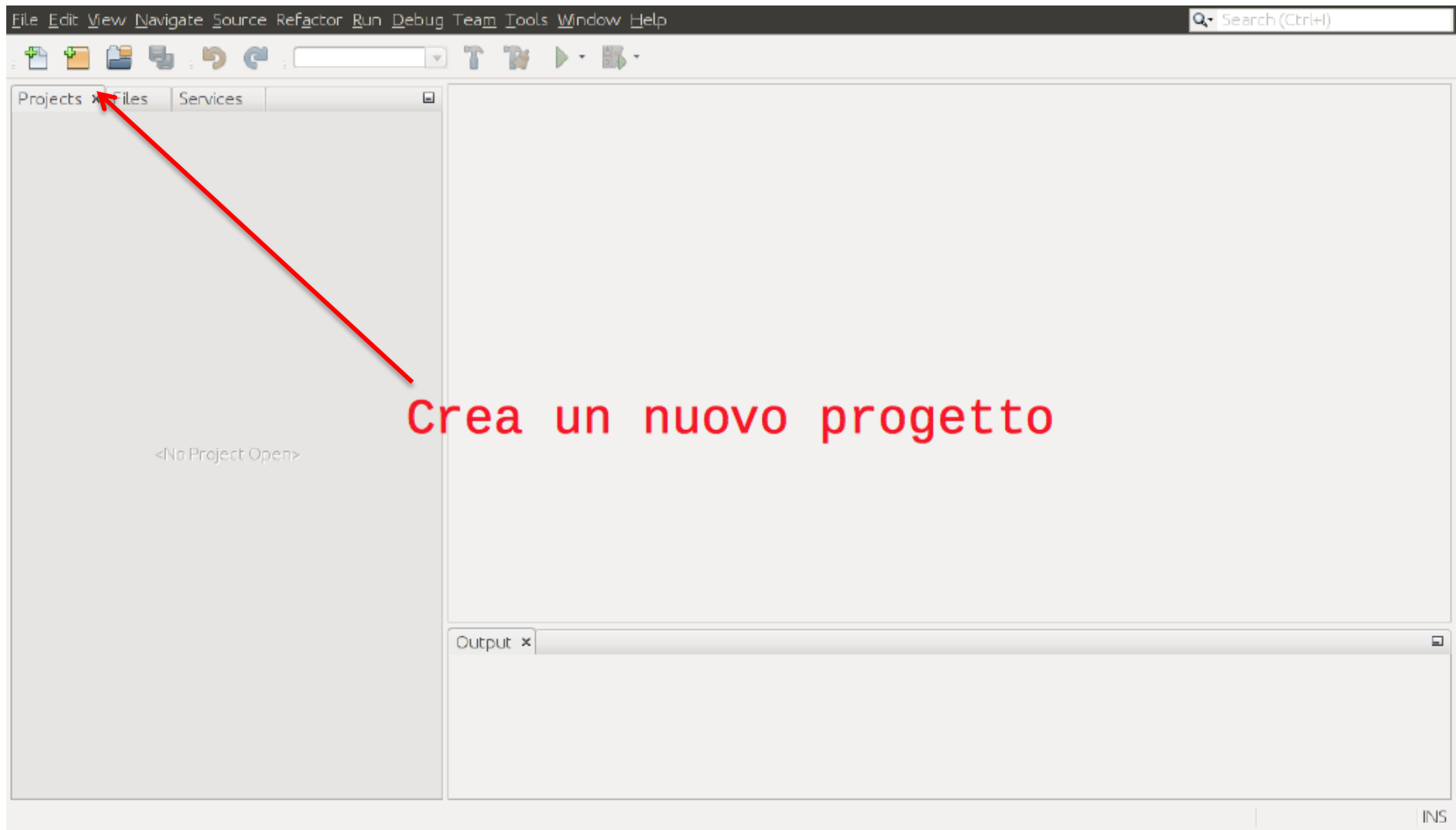
IDE: **Integrated Development Environment**

- scritto in Java
- Opensource
- Non solo per Java
- Era Sun/Oracle, ora è Apache



<https://netbeans.org/>

Uso di Netbeans

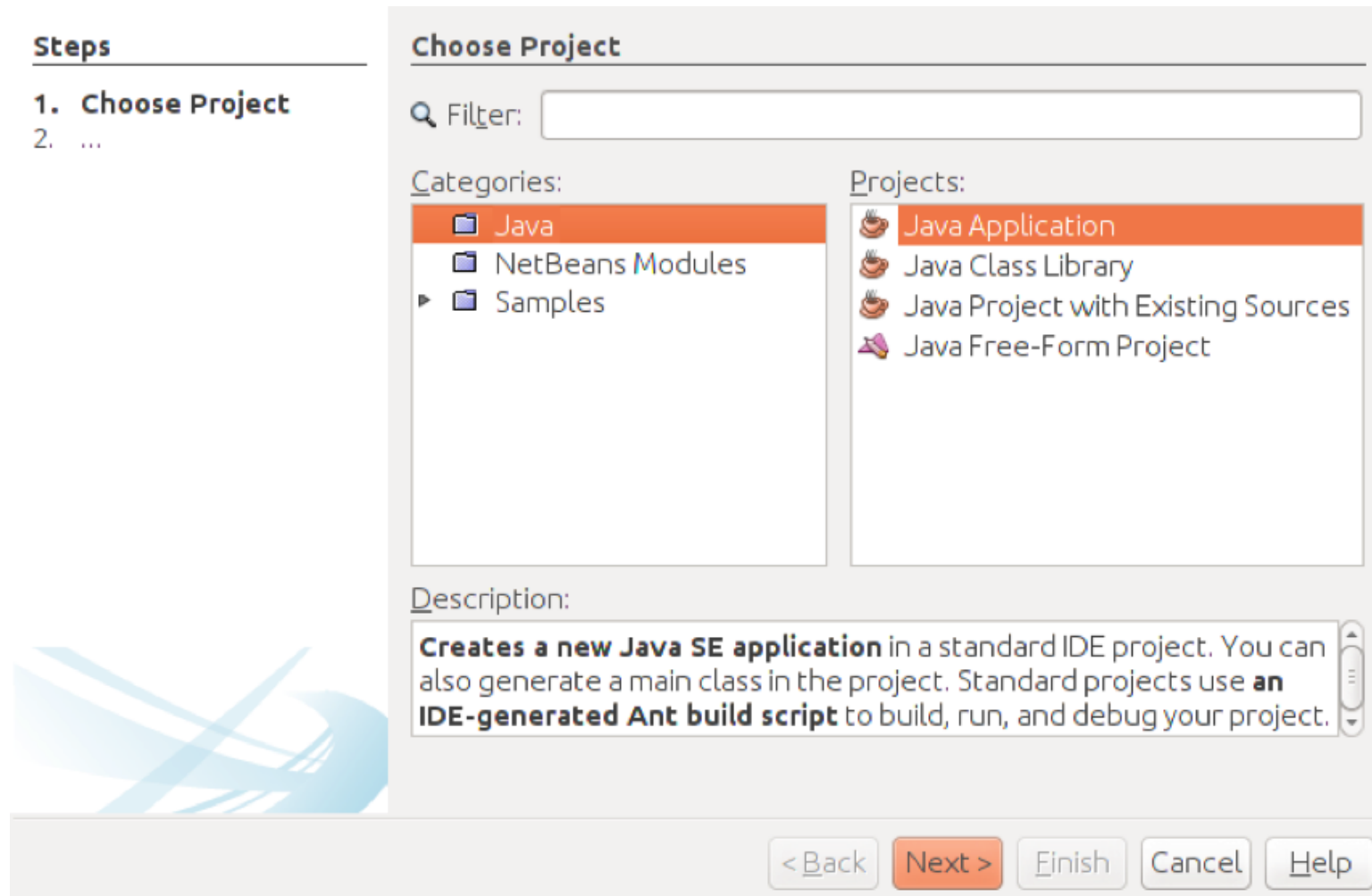


Uso di Netbeans

Steps

1. Choose Project

2. ...

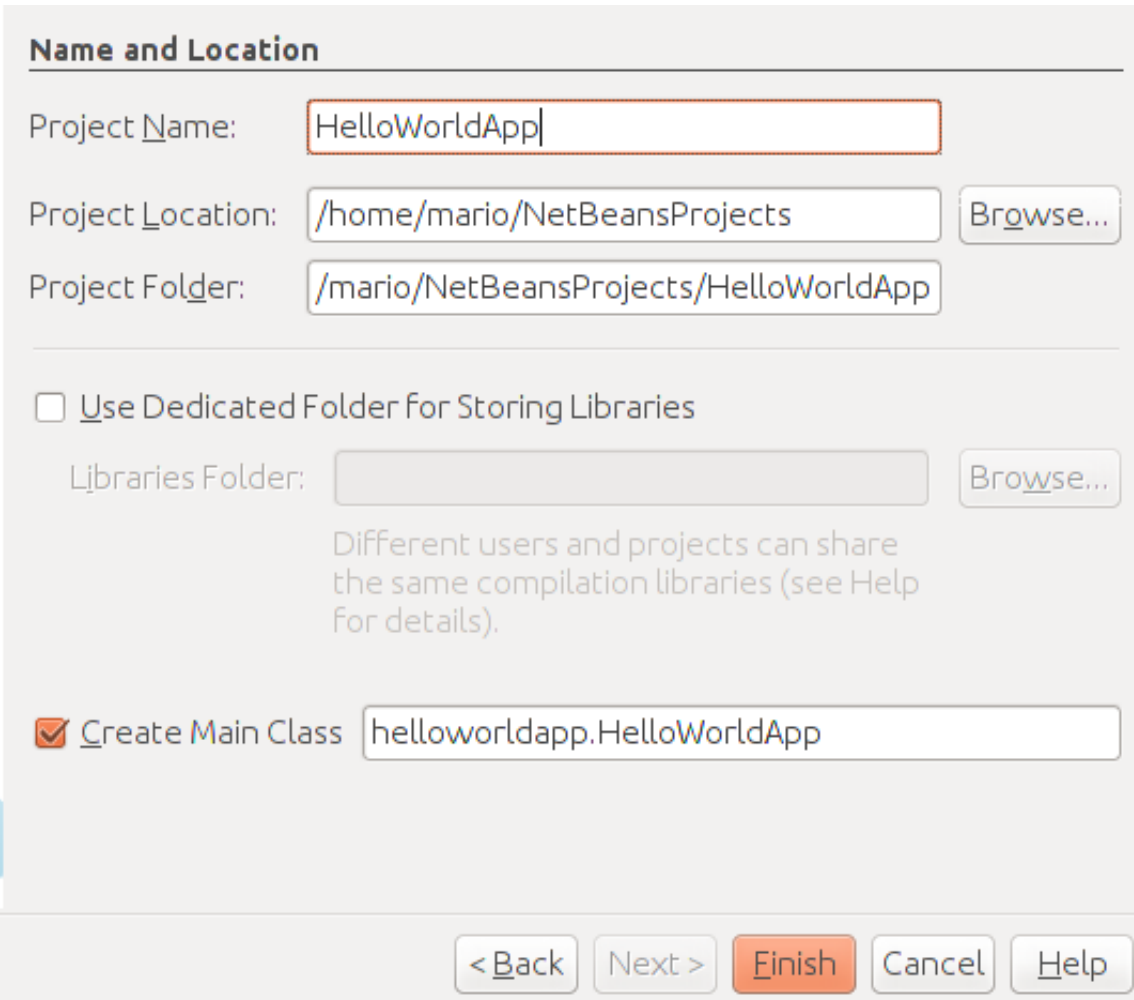


Scegli: Java -> Java Application, poi premi NEXT

Uso di Netbeans

Steps

1. Choose Project
2. **Name and Location**



Name and Location

Project Name: HelloWorldApp

Project Location: /home/mario/NetBeansProjects Browse...

Project Folder: /mario/NetBeansProjects/HelloWorldApp

☐ Use Dedicated Folder for Storing Libraries

Libraries Folder: Browse...

Different users and projects can share the same compilation libraries (see Help for details).

☒ Create Main Class helloworldapp.HelloWorldApp

< Back Next > Finish Cancel Help

Dai un nome al progetto

Verifica/scegli dove verrà creato

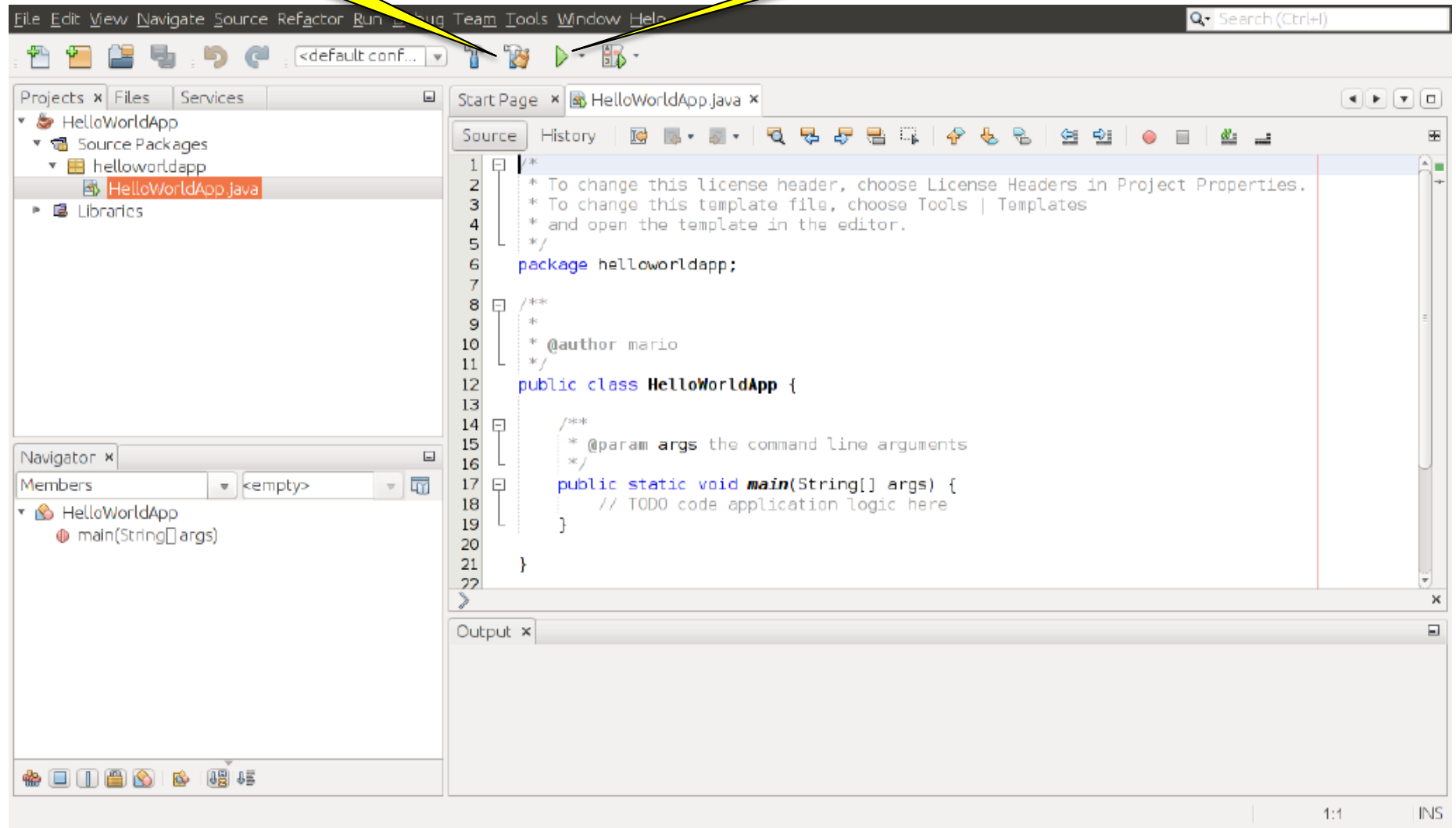
Verifica/scegli il nome della main class

Premi Finish

Compila

Uso di Netbeans

Esegui

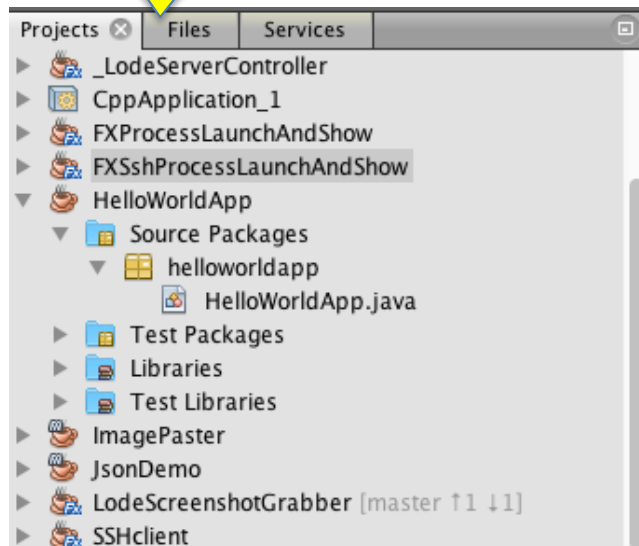


Edita la classe, poi compila ed esegui

File Editor

Project Browser

Uso di Netbeans



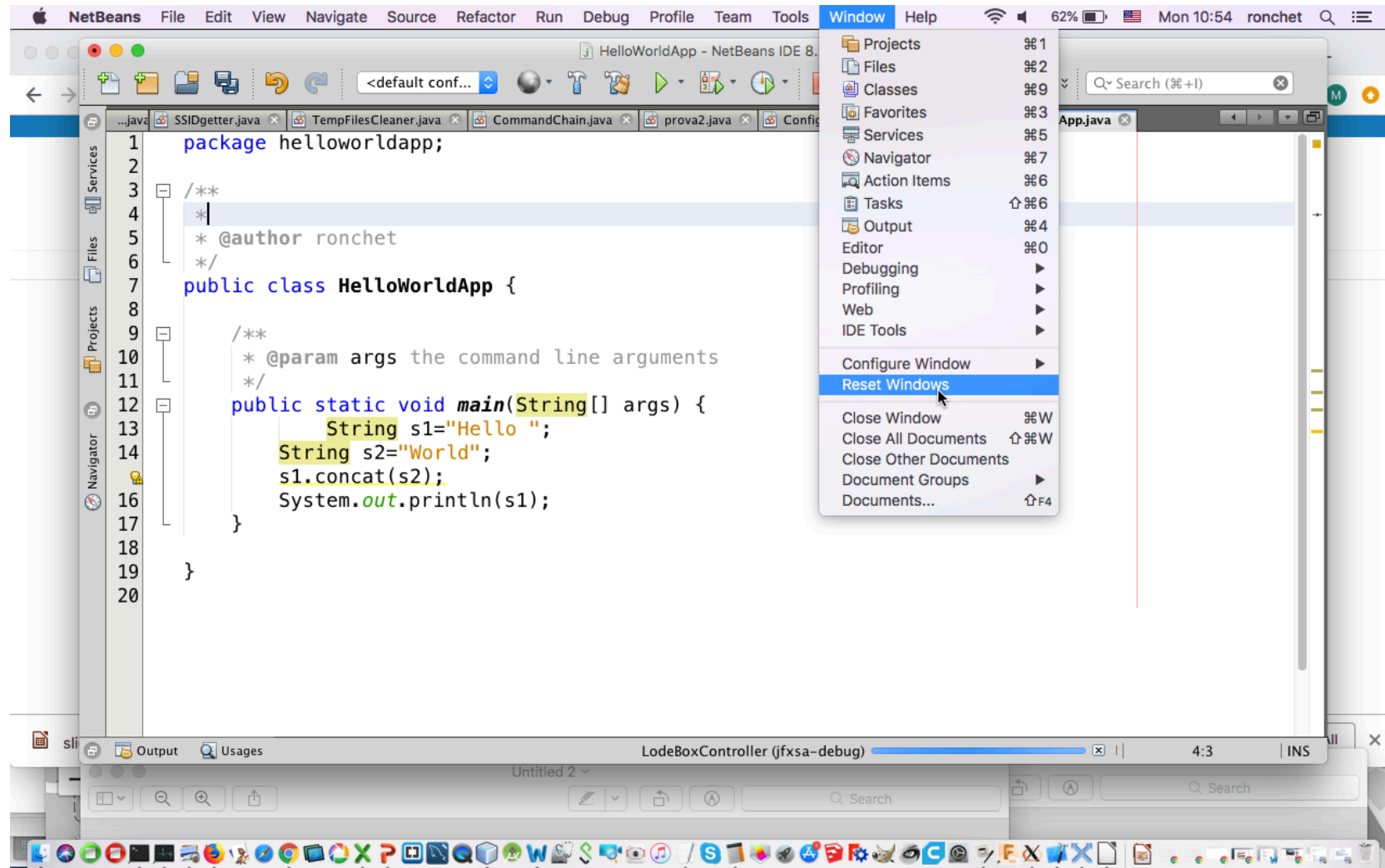
```
...java CommandChain.java x prova2.java x ConfigurationChecker.java x
6      */
7      public class HelloWorldApp {
8
9      /**
10     * @param args the command line arguments
11     */
12     public static void main(String[] args) {
13         String s1="Hello ";
14         String s2="World";
15         s1.concat(s2);
16     }
```

Output Console

The screenshot shows the NetBeans Output Console at the bottom of the IDE. The 'Usages' tab is selected. The output text is as follows:

```
==> COMMAND IS : /bin/bash -lc ffmpeg -i /Users/ronchet/LB/packages.
Ended AudioMerger
END POSTPROCESSING /Users/ronchet/LB/packages/lode3pkg-19-02-21-12-
Deleting directory /Users/ronchet/LB/dev/_LodeBoxController/dist/run
jfxsa-run:
BUILD SUCCESSFUL (total time: 1 minute 25 seconds)
```

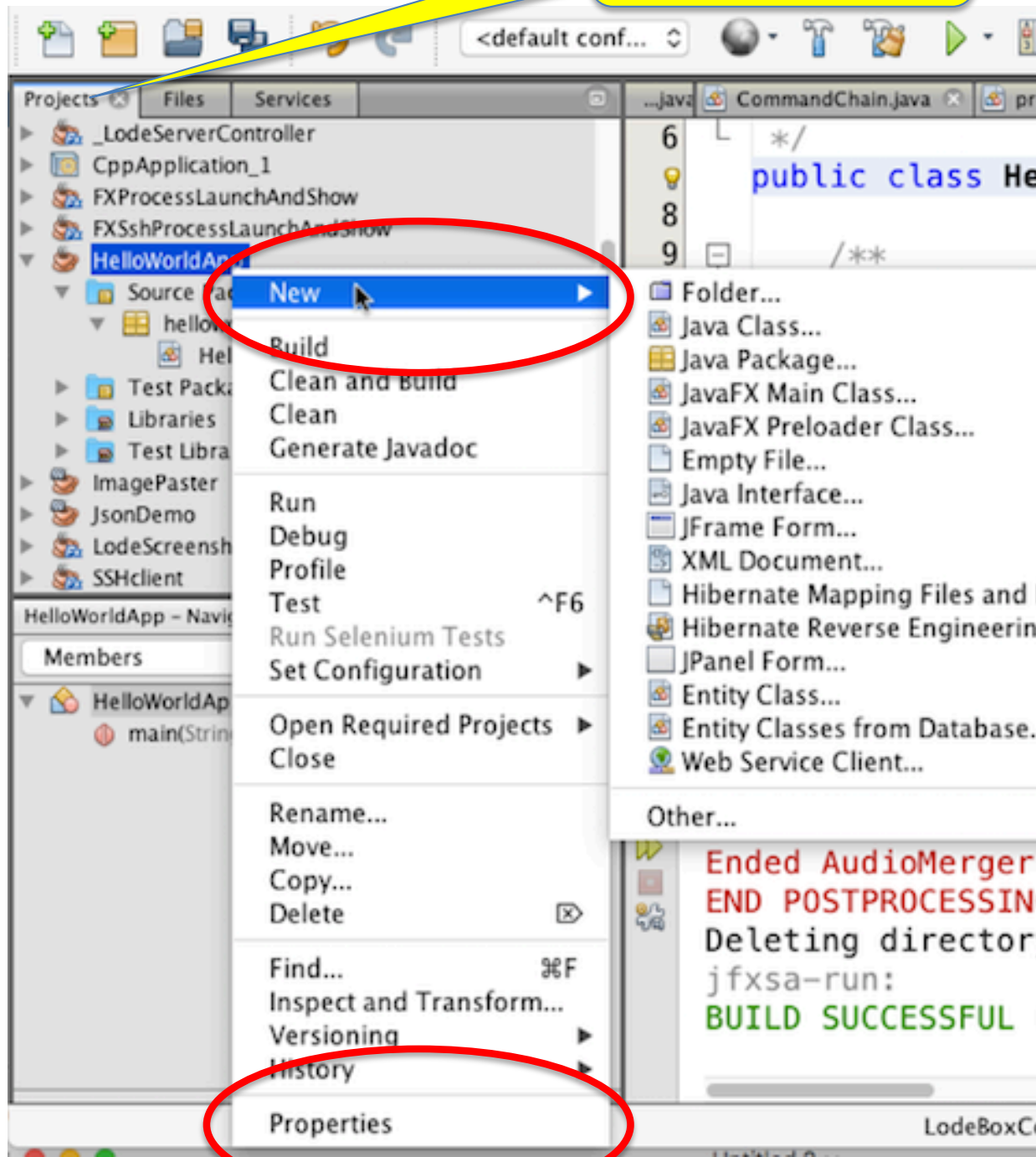
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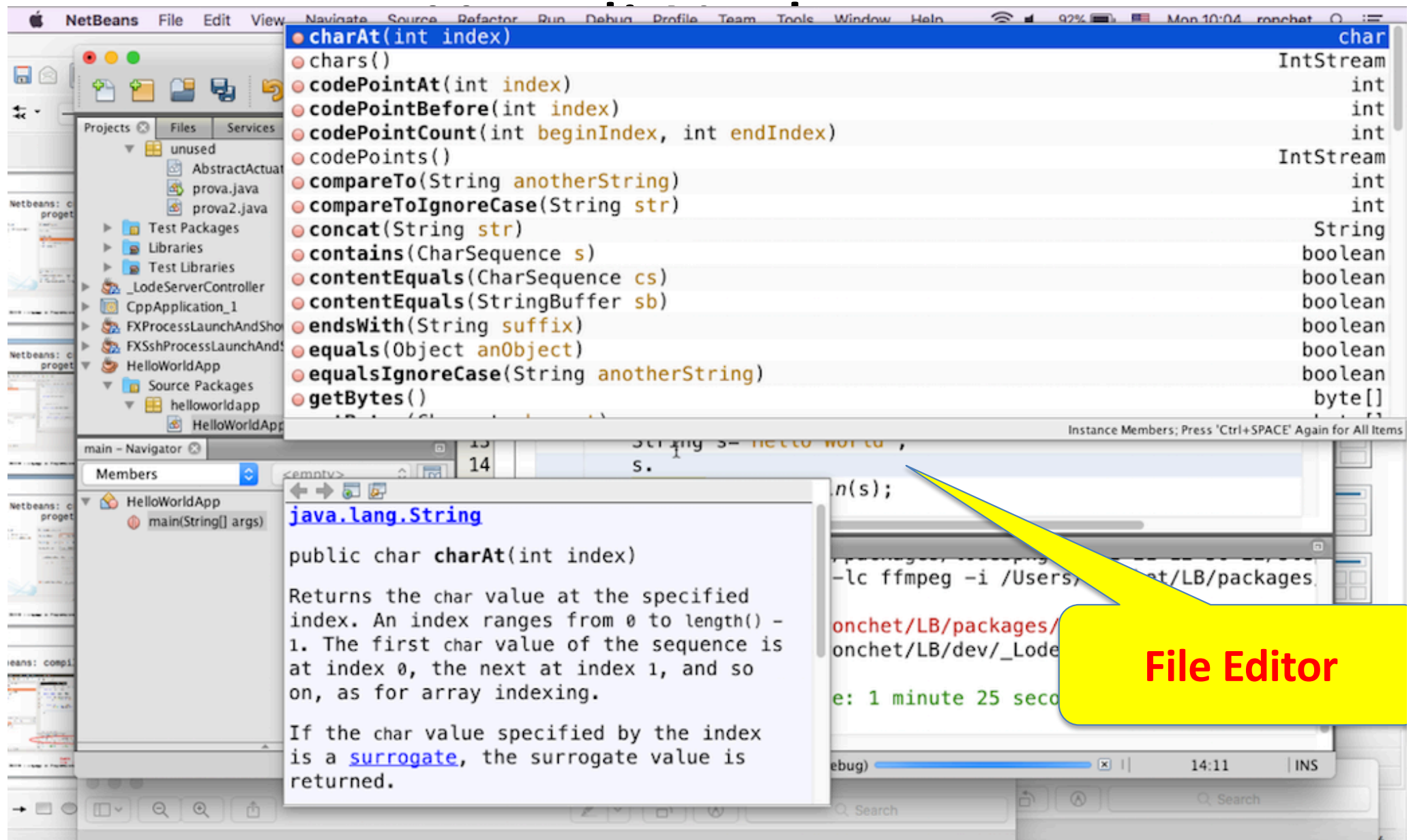


Se chiudi accidentalmente una o più delle tre sezioni, fai: "Reset Windows"

Project Browser

Uso di Netbeans





HELP ON LINE: premi "punto" dopo il nome di una variabile

Multiple tabs (files)

Uso di Netbeans

File Editor



The screenshot shows the NetBeans IDE interface. At the top, there are several tabs for open files: "...java", "CommandChain.java", "prova2.java", "ConfigurationChecker.java", and "HelloWorldApp.java". The "HelloWorldApp.java" tab is active, showing a Java code editor. The code is as follows:

```
1 package net.tower.tdapp;
2
3 /**
4  *
5  * @author ronchet
6  */
7 public class HelloWorldApp {
8
9     /**
10      * @param args the command line arguments
11      */
12     static void main(String[] args) {
13         String s1="Hello "
14         String s2="World";
15         s1.concat(s2);
16         System.out.println(s1);
17     }
18 }
```

On line 13, there is a syntax error: a closing quote is missing for the string "Hello ". A yellow tooltip box is visible over the error, containing the text: "'.' expected" and "(Alt-Enter shows hints)". A red error icon is visible in the left margin next to line 13.

SUGGERIMENTI: SEGNALAZIONE E CORREZIONE DI ERRORI

HelloWorld vers. 3

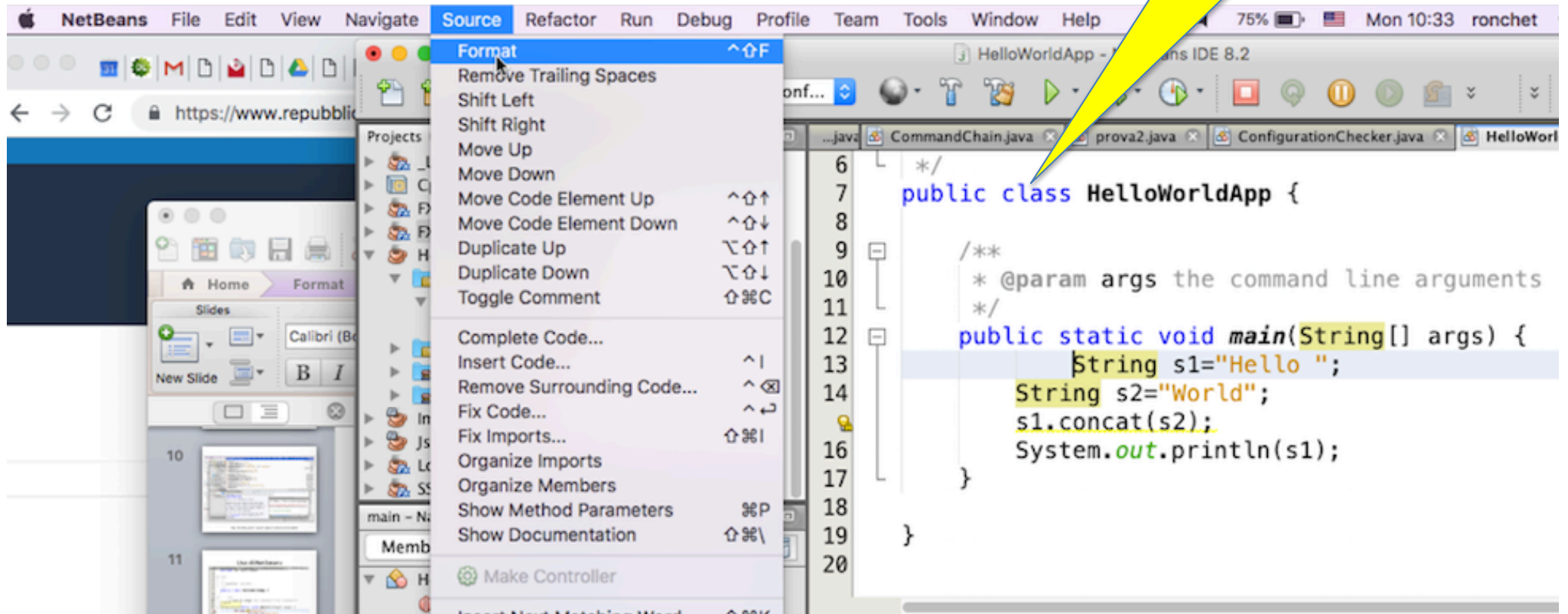
```
package it.unitn.prog2;
public class HelloWorldApp {
    public HelloWorldApp() {
        String s1="Hello ";
        String s2="World";
        s1=s1.concat(s2);
        System.out.println(s1);
    }
    public static void main(String[] args) {
        HelloWorldApp app = new HelloWorldApp();
    }
}
```



Business Logic

Uso di Netbeans

File Editor



RIFORMATTAZIONE AUTOMATICA

Uso di Netbeans

File Editor



REFACTOR: cambia nomi a classi/variabili

Dove sono i files?

Cercateli...

(suggerimento: guardate le proprietà del progetto)

I packages diventano directories!

Ci sono due files speciali:

Manifest

jar

Jar e manifesto

Il Jar può essere unzippato:

`unzip -ap HelloWorldApp.jar`

Contiene:

- META-INF
- META-INF/MANIFEST.MF
- it/unitn/prog2/HelloWorldApp.class

Il file “MANIFEST.MF” dichiara quale classe con il main eseguire:

Main-Class: it.unitn.prog2.HelloWorldApp

Esercizio

- Creare un progetto
- Scrivere un programma che conti da 1 a 10 e stampi i valori in console
- Eseguire il codice da dentro netbeans
- Eseguire il codice da terminale

Nota: output nella console di Netbeans quando facciamo il build del progetto

Building jar:

/Users/ronchet/Documents/ArchivioLavoro/Didattica/NetbeansProjectsDidattica/Demos/Zero/dist/Zero.jar

To run this application from the command line without Ant, try:

java -jar

"/Users/ronchet/Documents/ArchivioLavoro/Didattica/NetbeansProjectsDidattica/Demos/Zero/dist/Zero.jar"

Esercizio – soluzione proposta

```
package it.unitn.prog2;

public class CounterApp2 {
    public CounterApp2() {
        int i=1;
        //print statement
        System.out.println("Output is : ");
        //loop to print 1 to 10.
        while(i<=10)
        {
            System.out.println(i);
            i++;
        }
    }
    public static void main(String[] args) {
        CounterApp2 app = new CounterApp2();
    }
}
```