

Introduction to Java and Eclipse

Natalie Perna

Department of Computing and Software
McMaster University

Week 1: Sept 10 - 14

Outline

1 Getting Started

- Getting Java
- Integrated Development Environments (IDEs)
- Setting Up Eclipse
 - Downloading Eclipse
 - “Installing” Eclipse

2 “Hello, World!”

3 Examining a Program

4 Further Reading

5 Next Week

Getting Java

- 1 Visit <http://www.oracle.com/technetwork/java/javase/downloads/index.html>
- 2 Download and install the correct version of “Java Platform (JDK) 7u7” for your system.

What is an IDE?

What is an IDE?

What is an IDE?

- IDE = Integrated Development Environment
- Software application
- Usually includes:
 - source code editor
 - build automation tools
 - debugger

Java IDEs

Some popular Java IDEs:

- 1 Eclipse
- 2 Java Development Kit (JDK)
- 3 NetBeans
- 4 BlueJ

Downloading Eclipse

- 1 Visit <http://www.eclipse.org/downloads/packages/eclipse-ide-java-developers/junior>
- 2 Download the correct version of “Eclipse IDE for Java Developers” for your system.

“Installing” Eclipse on a Mac

Mac

- 1 Find .tar.gz file (probably in your Downloads folder)
- 2 Drag it to the Desktop
- 3 Double-click on it and find a folder named “eclipse”
- 4 Drag “eclipse” folder into Applications folder
- 5 Inside “eclipse” folder find application named “Eclipse”
- 6 Drag it to your dock to make it easier to launch

“Installing” Eclipse on a Linux Machine

Ubuntu

Find and install Eclipse from the Ubuntu Software Center.

Other Distributions

Instructions should mirror Mac instructions.

“Installing” Eclipse on a PC

Windows

- 1 Find .zip file (probably in your Downloads folder)
- 2 Right-click on it
- 3 Select “Extract All...” and extract to “C:” (or whatever your root drive is)
- 4 After it is extracted, drag “eclipse.exe” to your Start menu to make it easier to launch

```
└─"Hello, World!"
```

"Hello, World!" I

- 1 Launch Eclipse.
- 2 Specify a Workspace (a directory where you would like Eclipse to save your work) and press OK.
- 3 Create a new Java Project:
 - File → New → Java Project
 - Project name: "My First Project"
 - Click Finish
 - You may have to click the small "x" to leave the Welcome screen.

```
└─"Hello, World!"
```

"Hello, World!" II

4 Create a new Java Class:

- File → New → Class
- Name: HelloWorld
- Check box to create a "public static void main(String[] args)" method
- Click Finish

```
└─"Hello, World!"
```

"Hello, World!" III

5 Write Your Program:

- Replace "// TODO Auto-generated method stub" with "System.out.println("Hello, World!");".
- File → Save

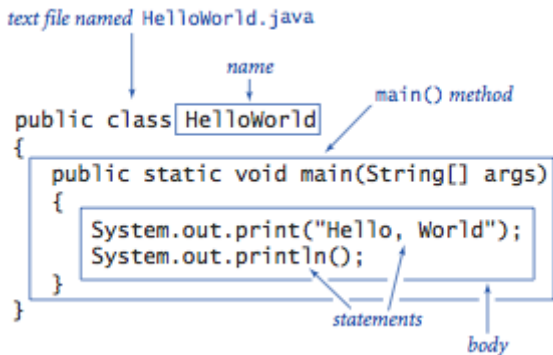
```
public class HelloWorld {  
  
    public static void main(String [] args) {  
        System.out.println("Hello, World!");  
    }  
  
}
```

```
└─"Hello, World!"
```

"Hello, World!" IV

- 6 Run Your Program:
 - Click the Run button (a round green play button) or Ctrl-F11.
 - The Console at the bottom of the windows should display "Hello, World!".

Examining a Program



Source: <http://introcs.cs.princeton.edu/java/11cheatsheet>

Further Reading

Find a Java tutorial you like and go through it step-by-step.
If you've programmed in Java before, take an hour to refresh.

Next Week

Topics and examples from “The Elements of Java Style”
Make sure to get a copy before next week