

A background image showing several hands of different skin tones holding a small globe of the Earth. The hands are positioned around the globe, with some pointing at specific locations. The globe shows continents in green and oceans in blue. A semi-transparent grey box is overlaid on the right side of the image, containing the title and chapter information.

Java-Tutorial for ISSS-Students

Chapter 1: First steps

Chapter 1: First steps

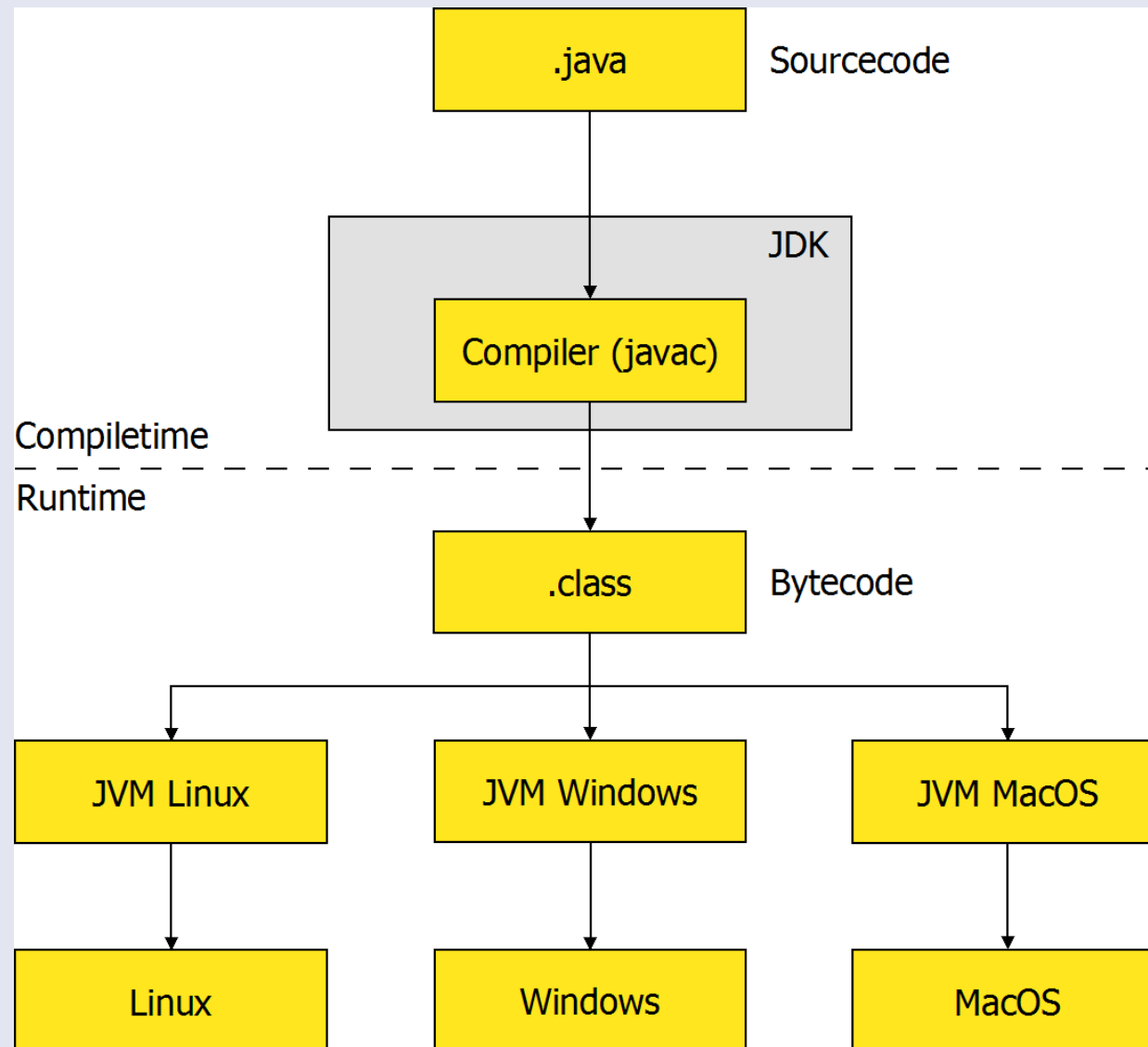
1. Installing the JDK
2. The first program
3. Multiple classes
4. Installing an IDE
5. The first project

Installing the JDK

- Java Programs are running on the *Java Virtual Machine (JVM)*, which only exists in the memory of our computer
- The *JVM* is part of the *Java Runtime Environment (JRE)*, which we have to install before running the programs
- In addition, we need the *Java Development Kit (JDK)* to write our own Java programs
- All required components are available here:
 - <http://www.oracle.com/technetwork/java/javase/downloads/index.html>

The first program

- Open a text editor and write the source code for the class *HelloWorld*
- Save the file (use the same name as for the class!)
- Open the command prompt, choose the right folder and compile the code via *javac Filename.java*
- Run the code via *java Filename*



Multiple classes

- Create a second class *AdditionalText*
- Change the class *HelloWorld* so that it references the newly created class *AdditionalText*
- Compile and run *HelloWorld* again

Installing an IDE

- An *Integrated Development Environment (IDE)* offers a lot of features to make programming in Java faster and more comfortable
- Great variety of *IDE's* like *Eclipse*, *Netbeans*, *IntelliJ* or *JBuilder* – for this tutorial we will use *Eclipse*:
 - <http://www.eclipse.org/downloads/>

The first project

- Start *Eclipse* and create a new workspace
- Create a new Java-Project
- Create a package for chapter 1
- Create the *HelloWorld*-class again