

JAVA Programming

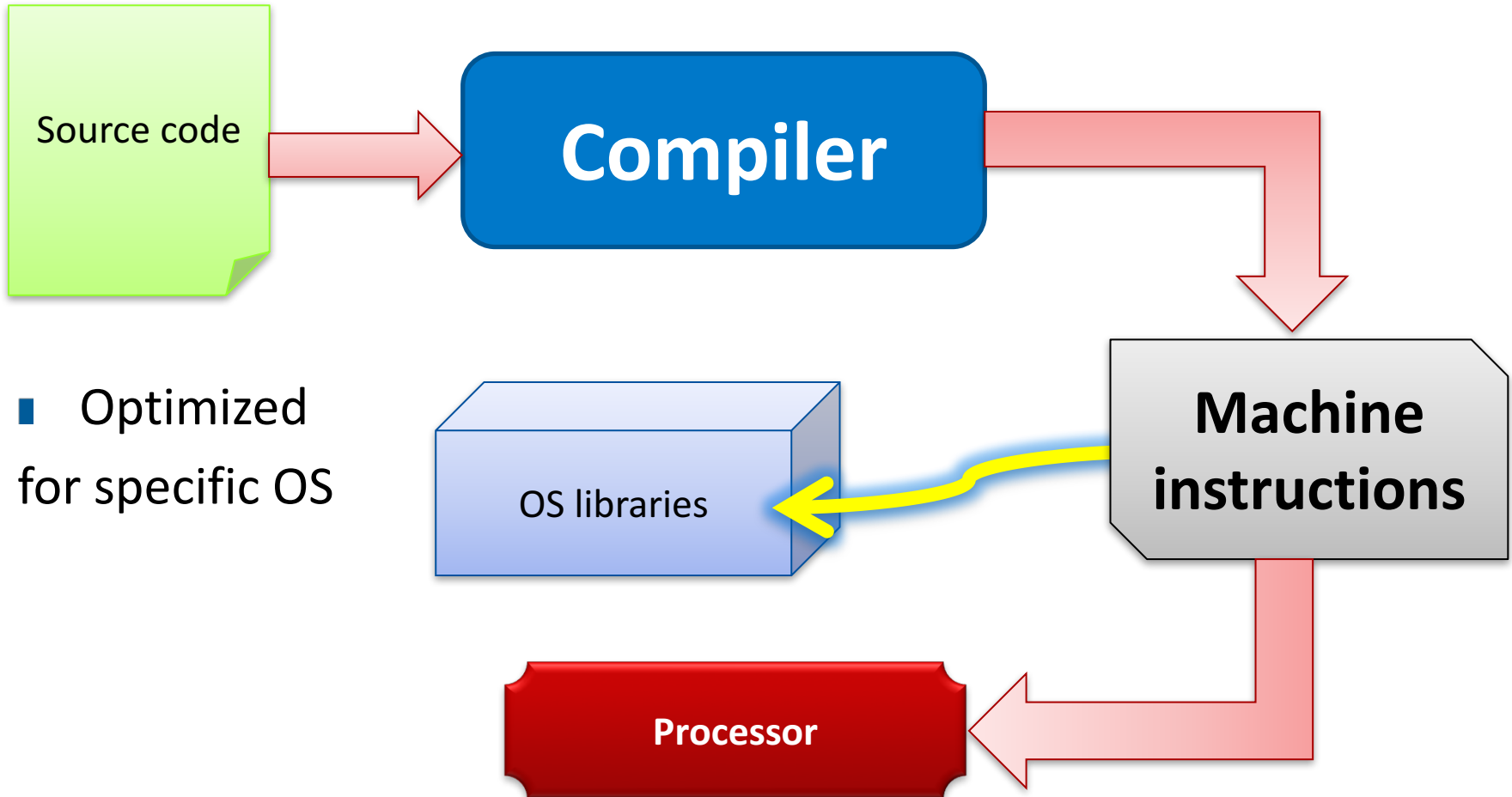
JAVA Introduction

Overview

- Java eco System
- Distributions

Java eco system

- Long time ago...



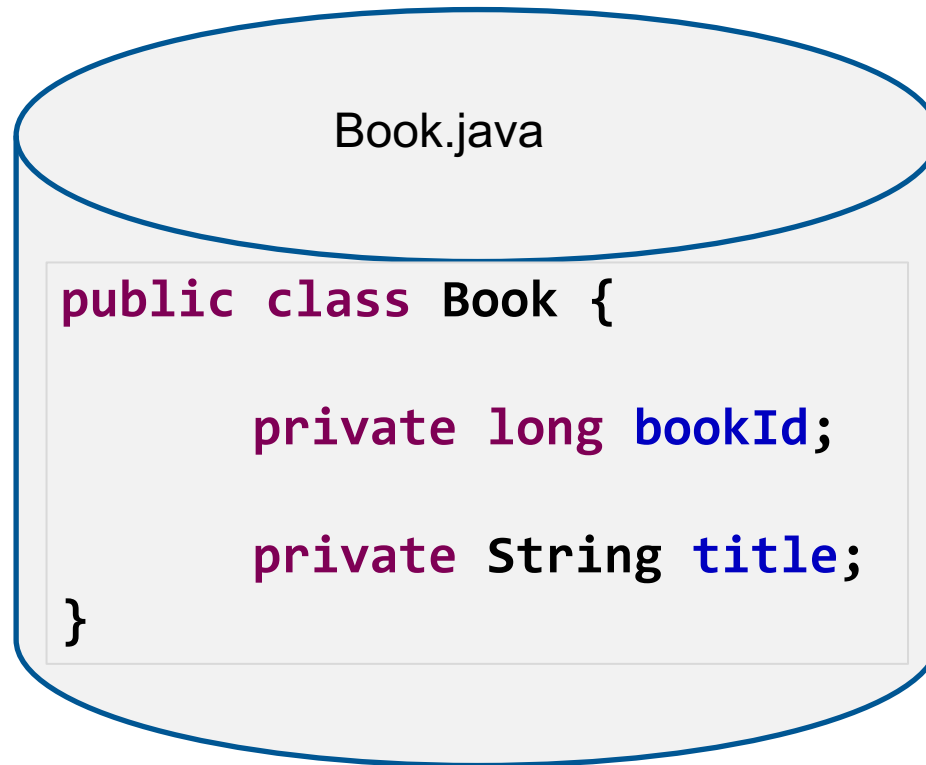
- Optimized for specific OS

Java eco system

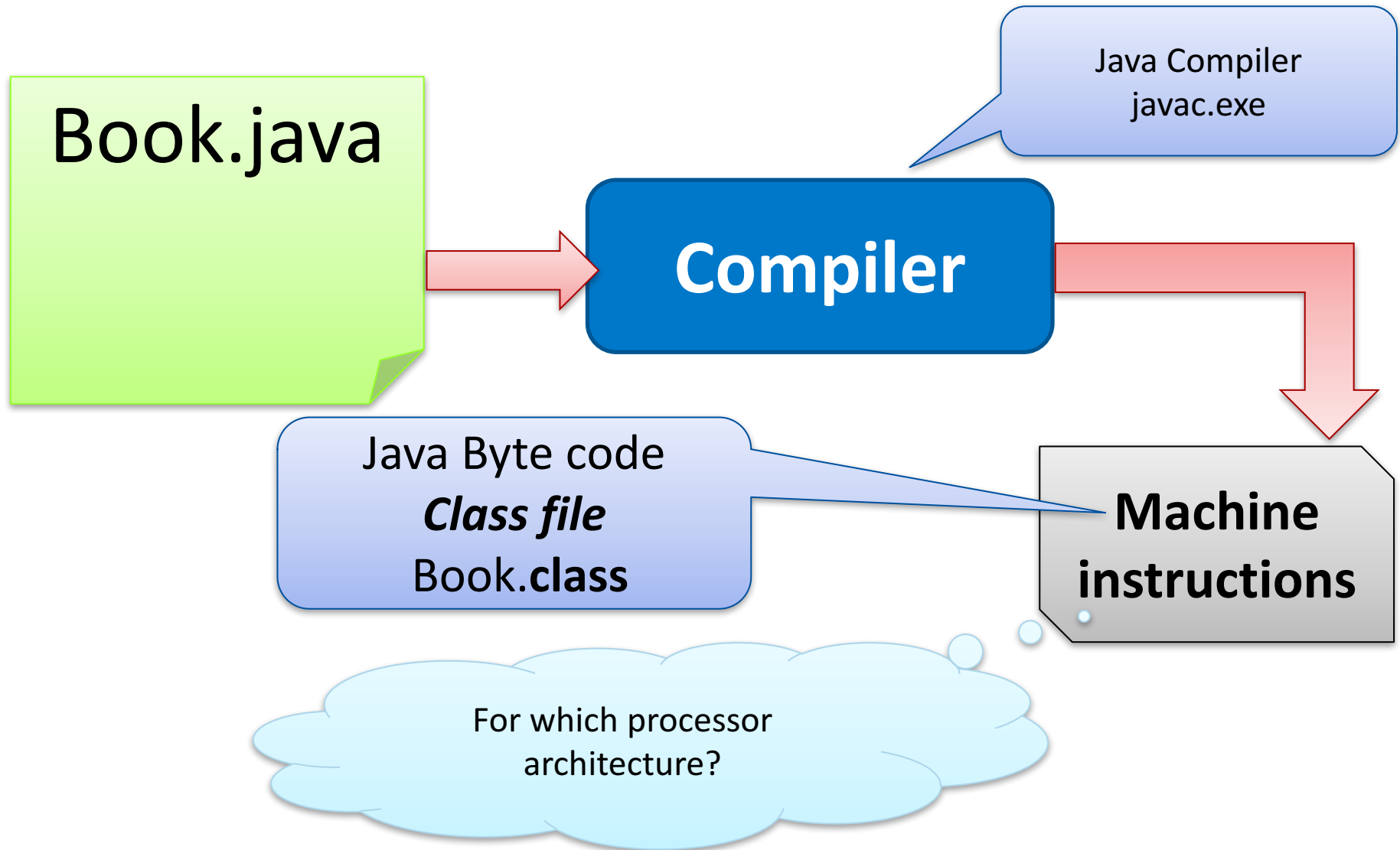
- The executable is platform specific
- For another OS a new build is needed

Java eco system

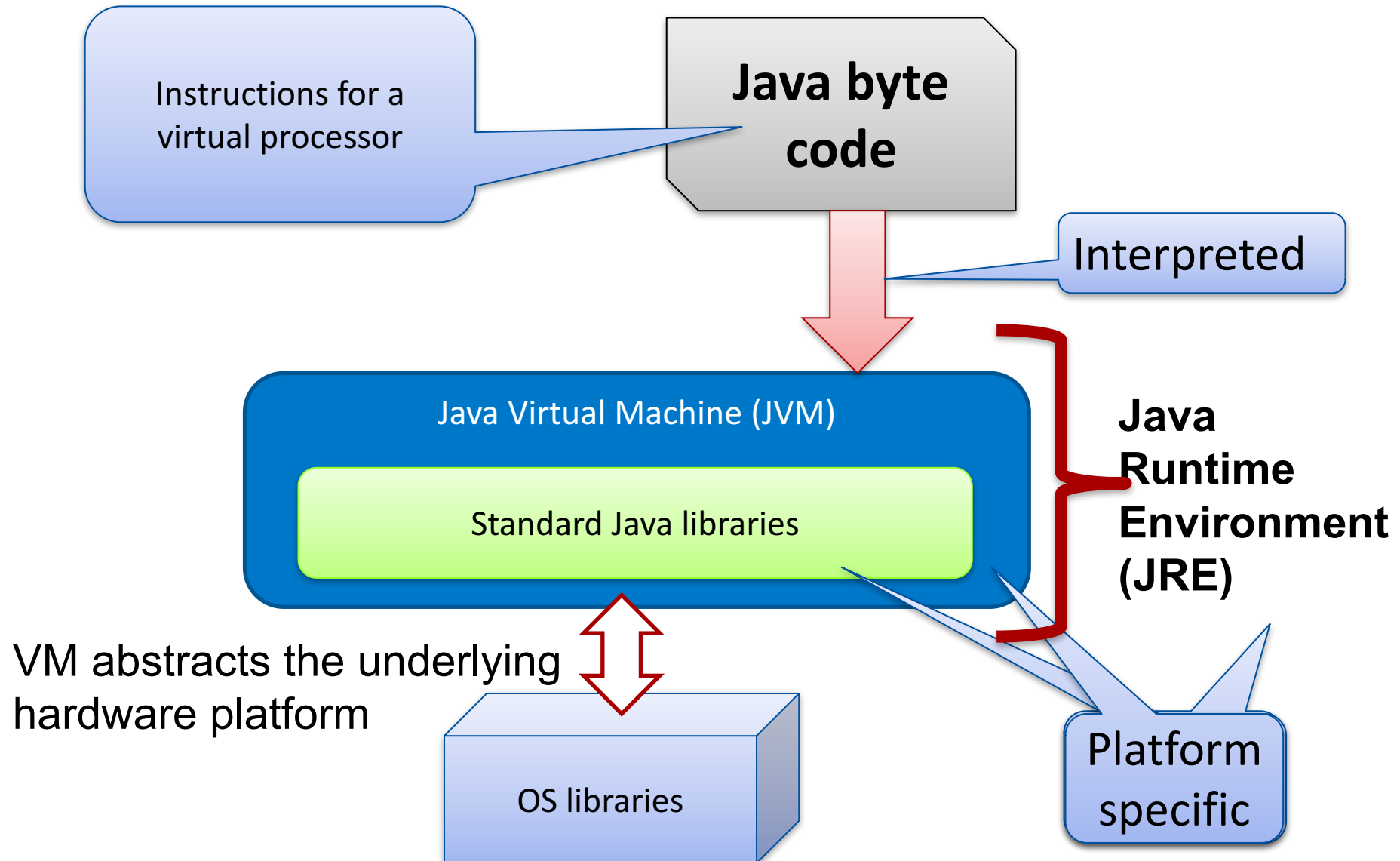
- Mostly one Java class is one .java file
 - Multiple classes per file allowed, but only one public class allowed.



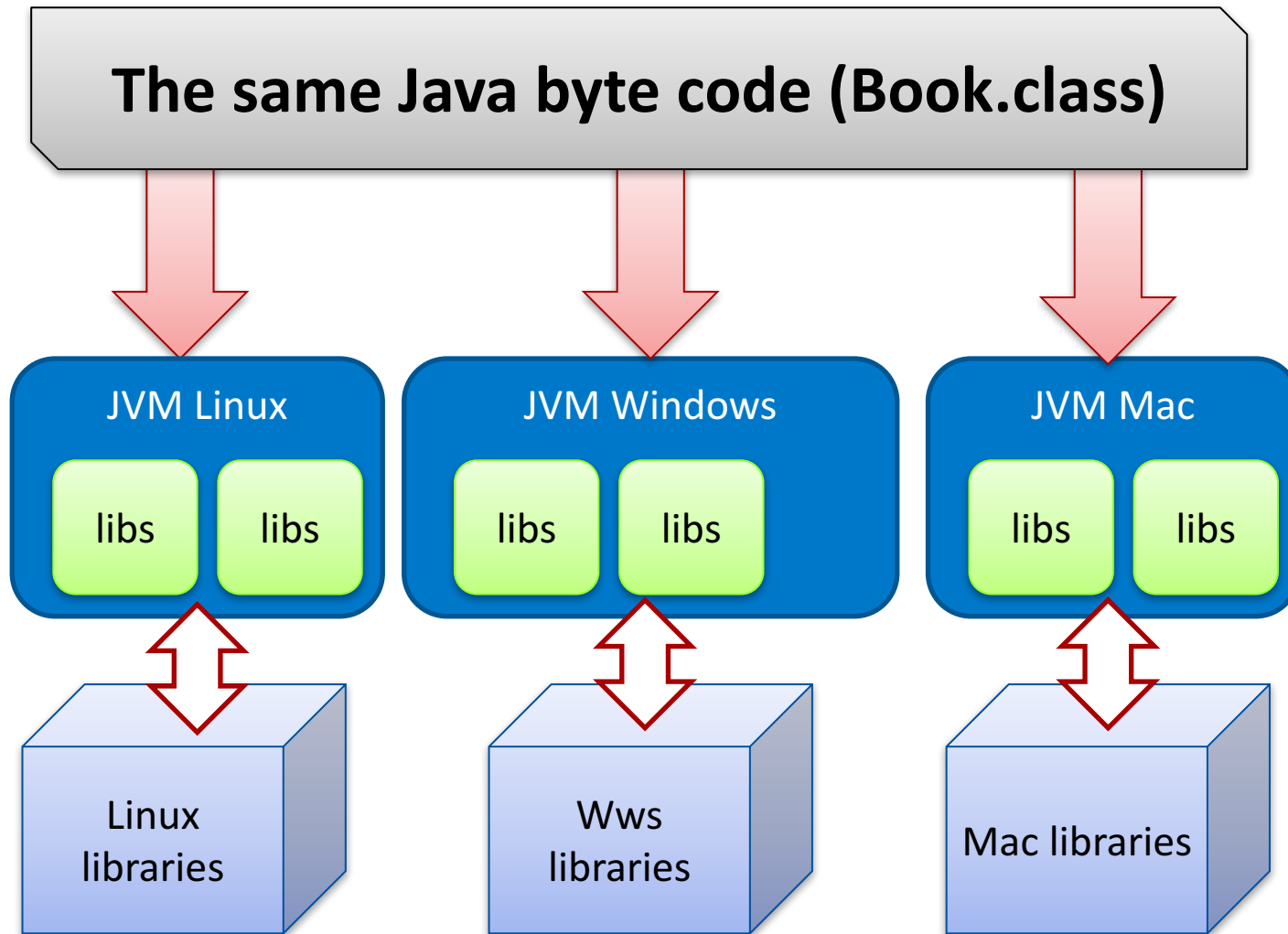
Java eco system



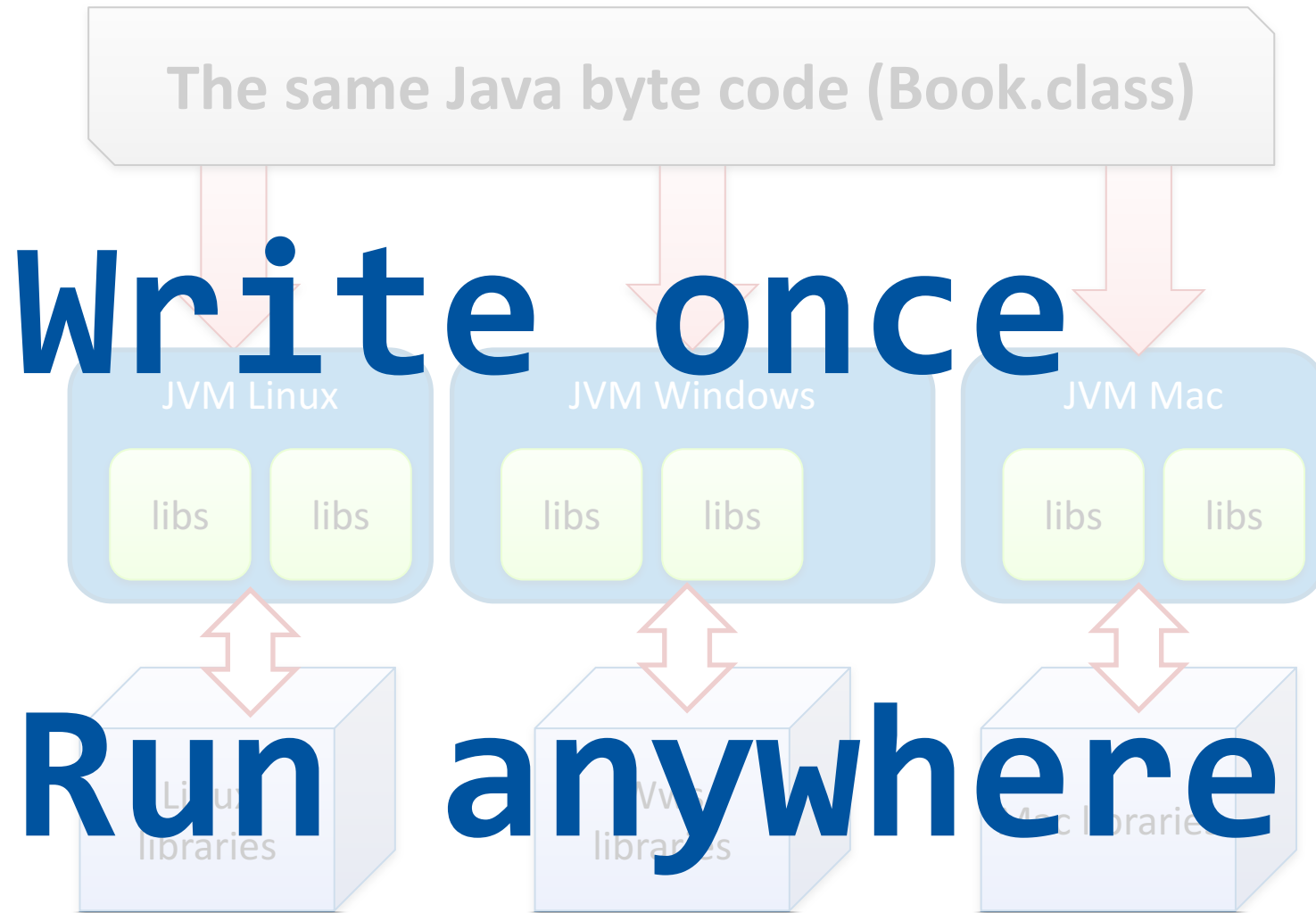
Java eco system



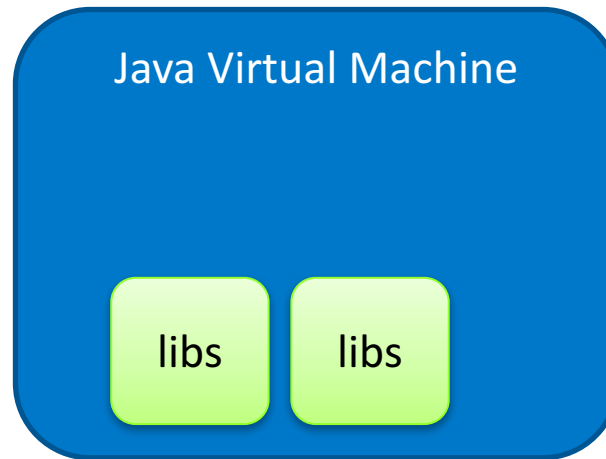
Java eco system



Java eco system



Java eco system



Everyone can implement his own virtual machine

- Oracle Hotspot JVM (Sun)
- Oracle JRocket JVM (Bea)
- IBM JVM
- Open JDK (Open source)

Java eco system

- To get a JRE

<http://java.oracle.com>

- To start a Java program
- To start a Virtual Machine

JRE\bin\java.exe Book

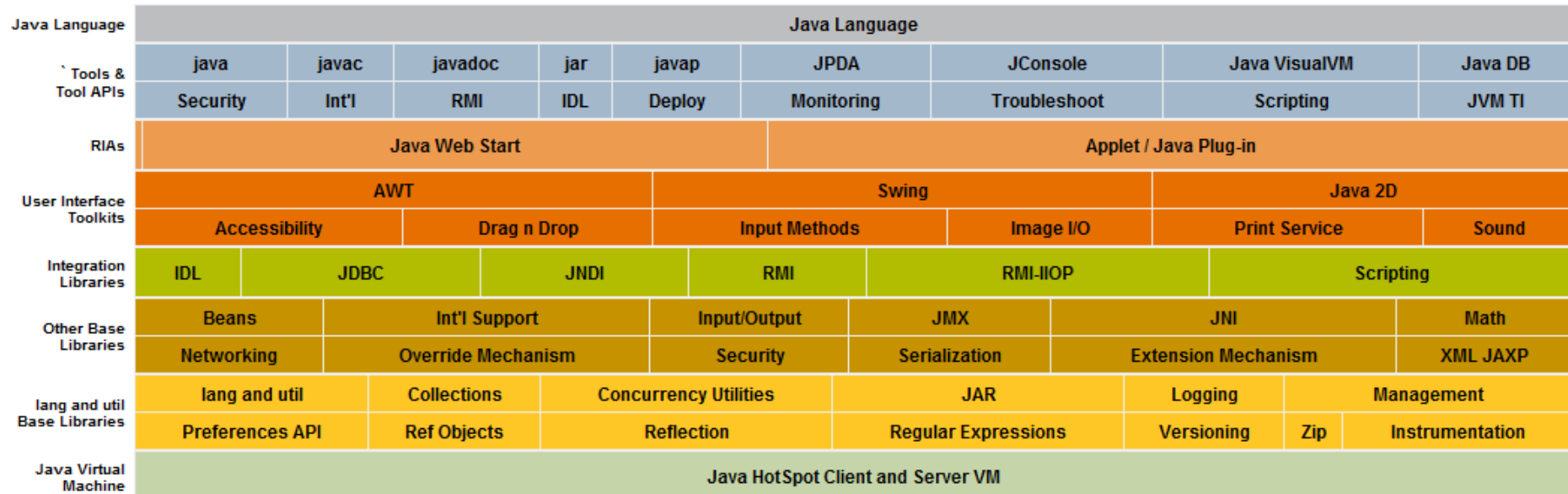
Java eco system

- Many classes are provided with a JRE
 - JRE\lib\rt.jar (>18.000 classes)

- Java API's

- Application Programming Interface

<http://docs.oracle.com>



Java eco system

■ JAR Java Archive

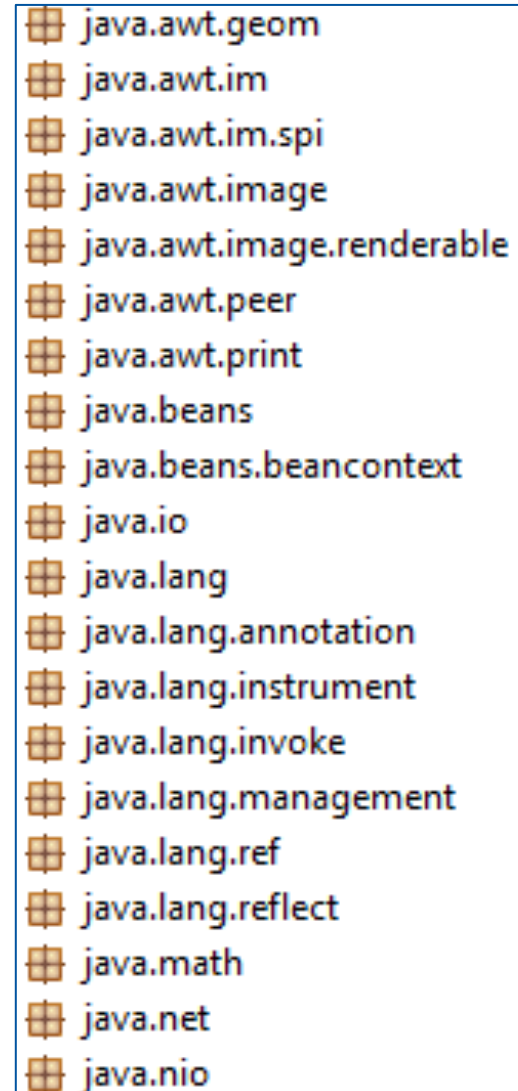
- Archive to package multiple files
 - Class files
 - Property files
 - Audio / video
 - Images
- .jar extension, .zip format.

Java eco system

- Java Runtime Environment (JRE)
 - Needed to run Java applications
 - Not suitable for development
- Therefore, use Java Development Kit (JDK)
 - JRE + development tools (s.a. javac)
 - Source code of all standard Java classes
 - Java documentation (JAVADOC)

Java eco system

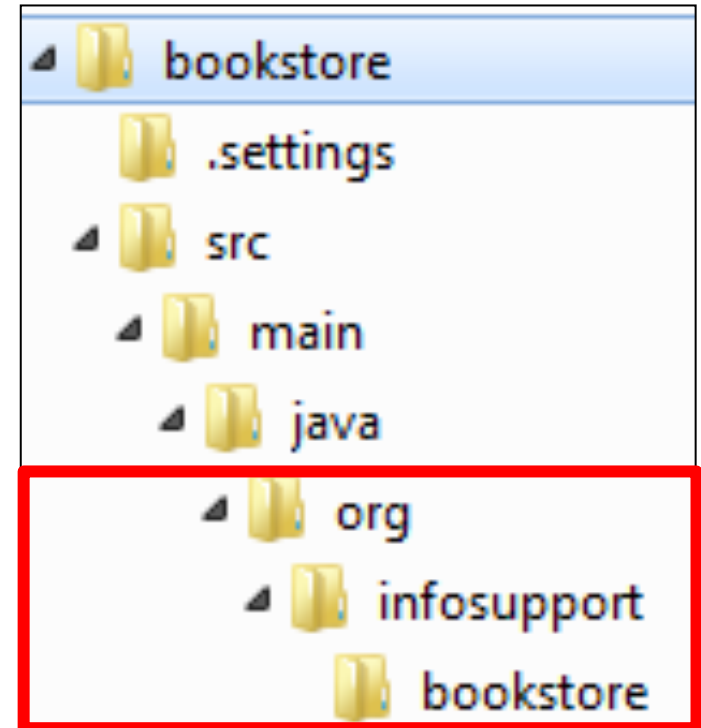
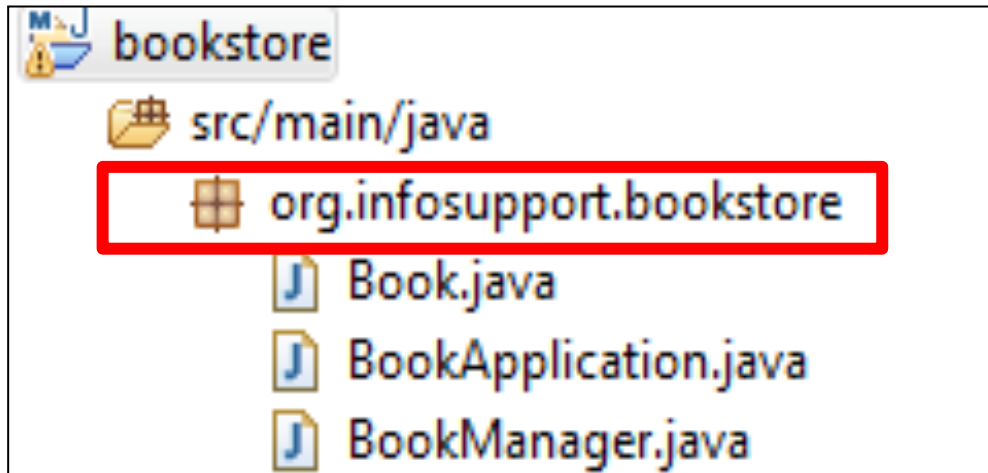
- Many classes are provided with a JRE
 - JRE\lib\rt.jar
(>18.000 classes)
- Separated in packages



- java.awt.geom
- java.awt.im
- java.awt.im.spi
- java.awt.image
- java.awt.image.renderable
- java.awt.peer
- java.awt.print
- java.beans
- java.beans.beancontext
- java.io
- java.lang
- java.lang.annotation
- java.lang.instrument
- java.lang.invoke
- java.lang.management
- java.lang.ref
- java.lang.reflect
- java.math
- java.net
- java.nio

Java eco system

- What is a package?
 - Number of related classes
 - Hierarchical organized

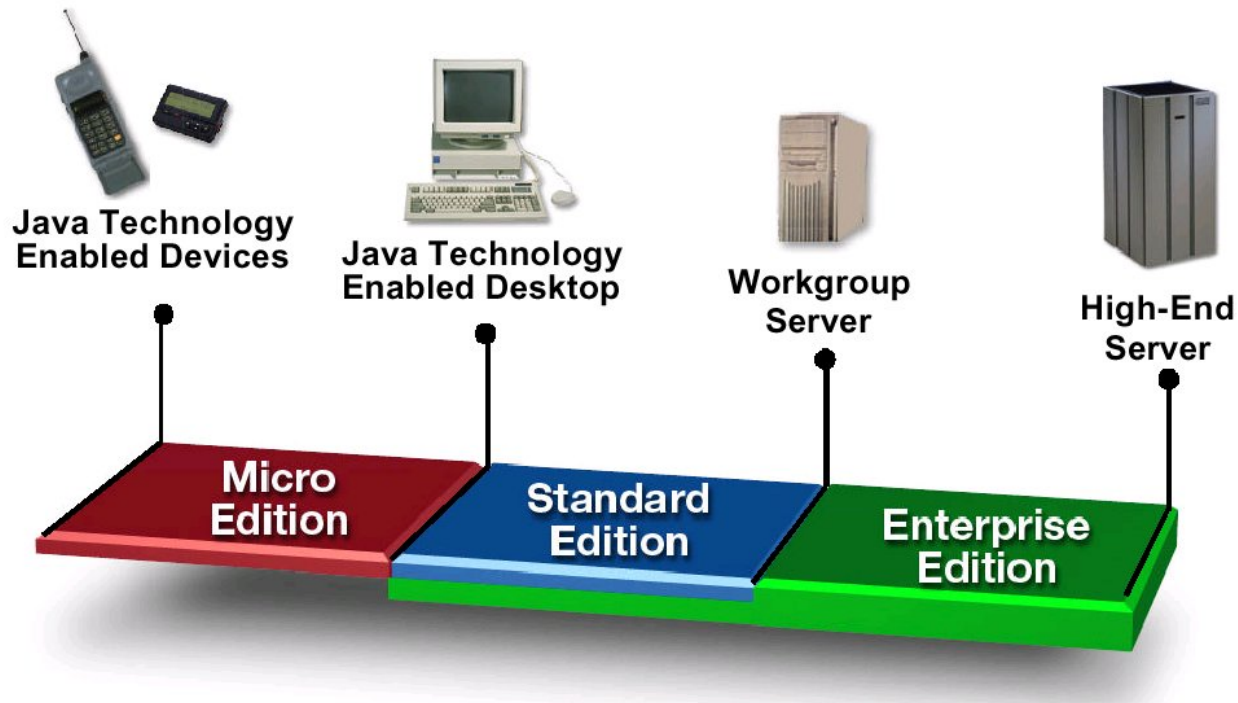


Java eco system

- Java Standard Edition
- Java Enterprise Edition
- Java Micro edition
- Java Card

Distributions

- For this we have: **Components**
- Standard solution pack for standard environments: Distribution



Lab

No lab associated with this module