

Java Programming

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- Go over important dates.

Important Dates

- Java Compiler
- JVM
- JRE
- JDK

Today's Lecture

- Java Compiler
- Takes Java source code as input (.java file).
- Generates a file that contains Java bytecode (.class file).



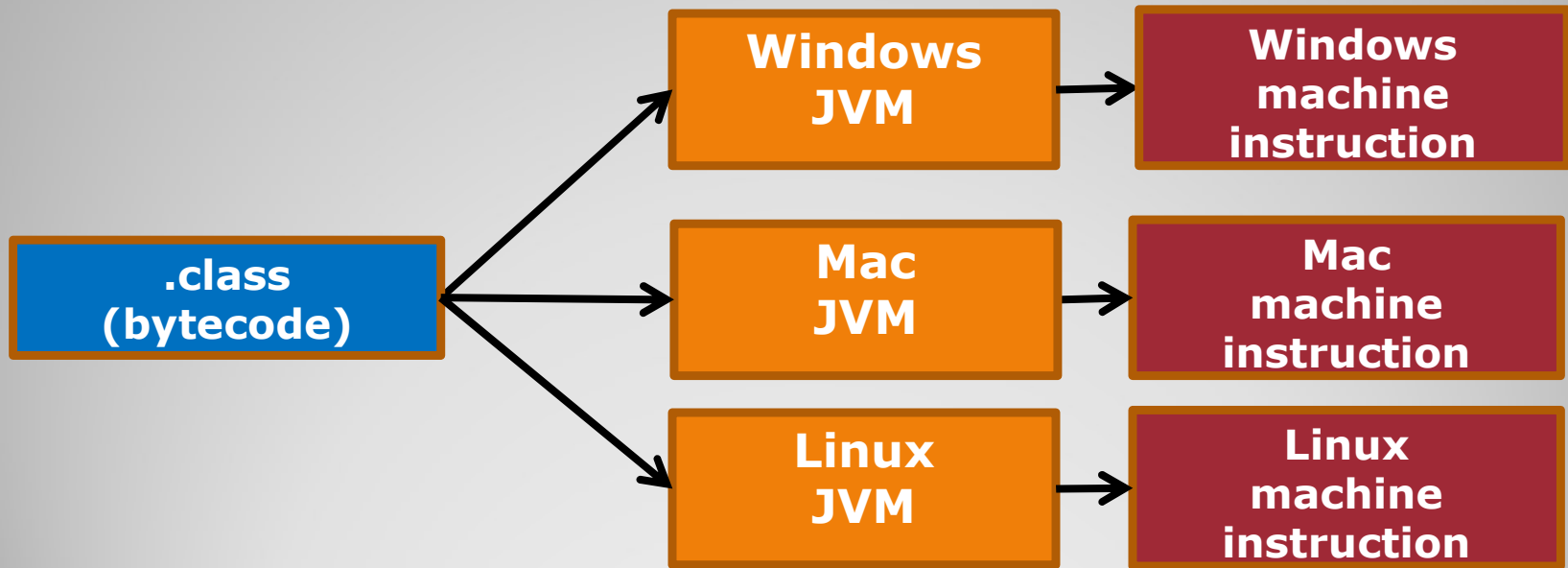
Java Compiler

- JVM – Java Virtual Machine
- Runs Java bytecode
- It receives Java bytecode instructions one at a time and converts them into machine instructions.



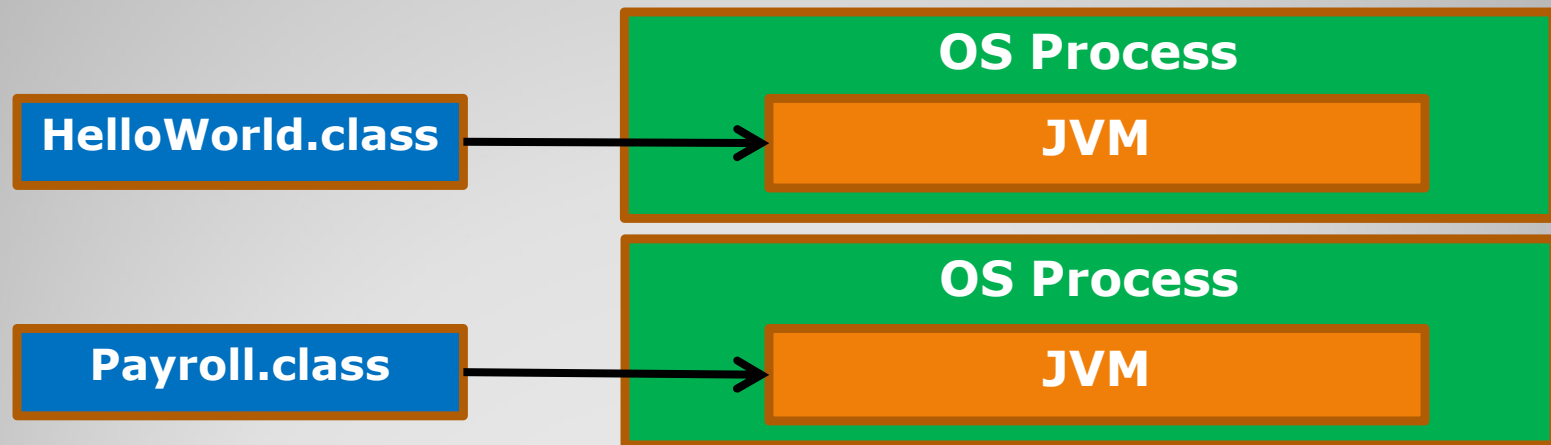
Java Virtual Machine

- Each type of computer will run its own version of the JVM.
- This makes it possible to run the same Java bytecode on different platforms (Windows, Mac, etc...).



Java Virtual Machine

- Each Java program that runs will have its very own JVM when it executes.
- For example, if two programs are run on the same machine (say HelloWorld and Payroll) they will both have their own JVMs.



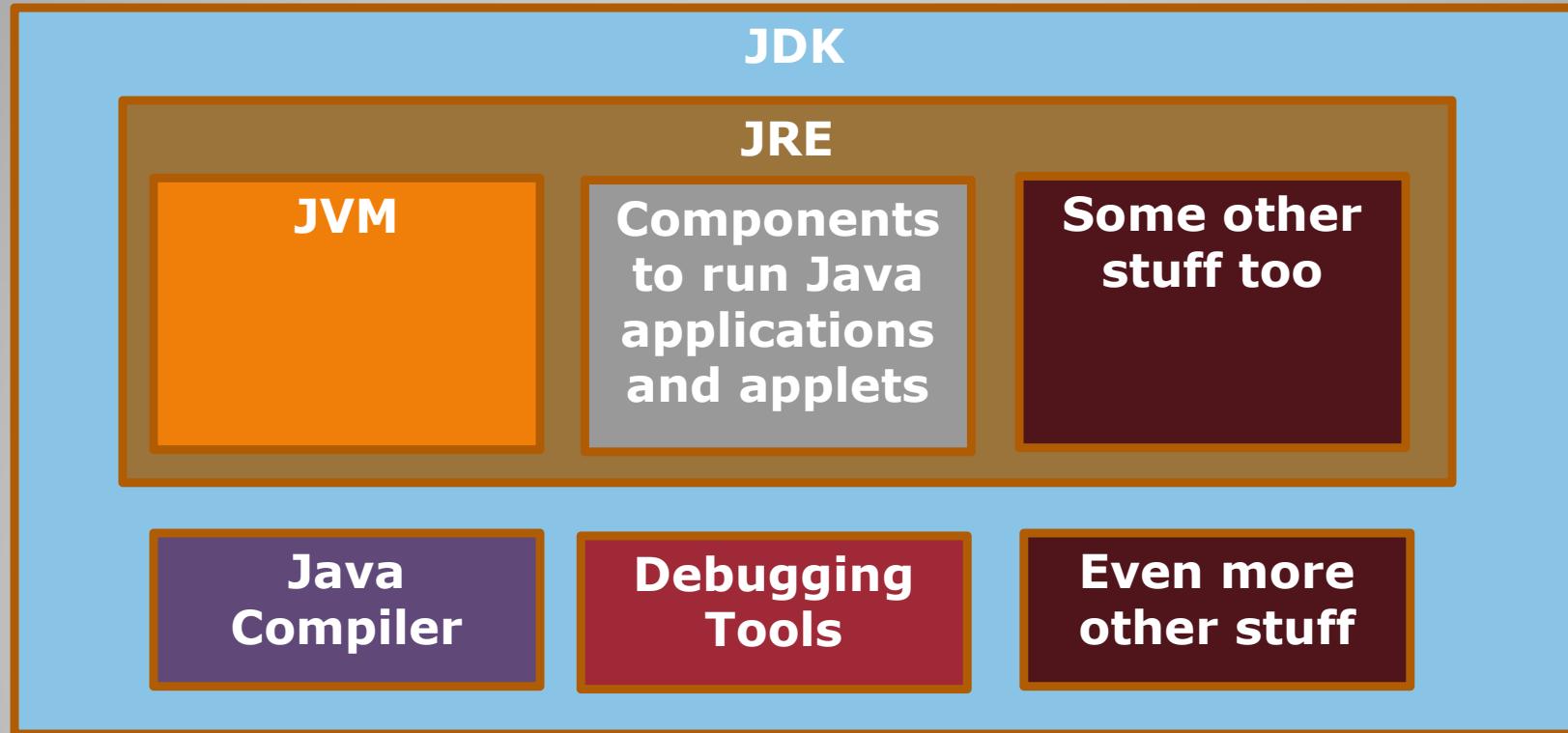
Java Virtual Machine

- **JRE – Java Runtime Environment**
- The JRE contains the JVM and other stuff.



Java Runtime Environment

- **JDK – Java Development Kit**
- Contains the JRE and other stuff



Java Development Kit

- Users of Java programs only need the JRE to be installed on their machine.
- Java software developers need the JDK installed so they can compile programs.

Users vs Developers

- End of Slides

End of Slides