

Java Fundamentals: The Java Language

Introduction and Setting up Your Environment



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What to Expect in This Course

Strong foundation in
the Java language

Hands-on

Java syntax, constructs,
concepts, and usage

Language skills to work effectively in any Java-based environment



Java SE



Java EE



JavaFX

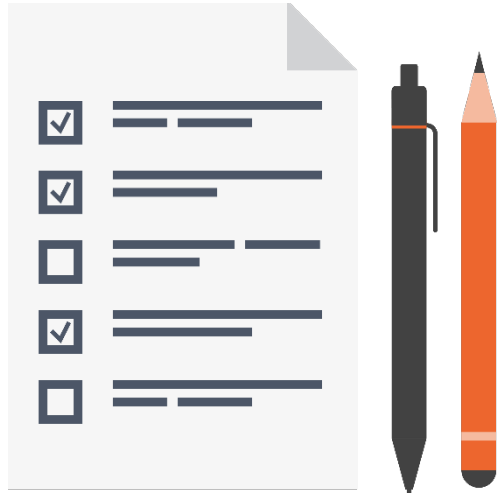


Java ME



Android

What to Expect in This Module



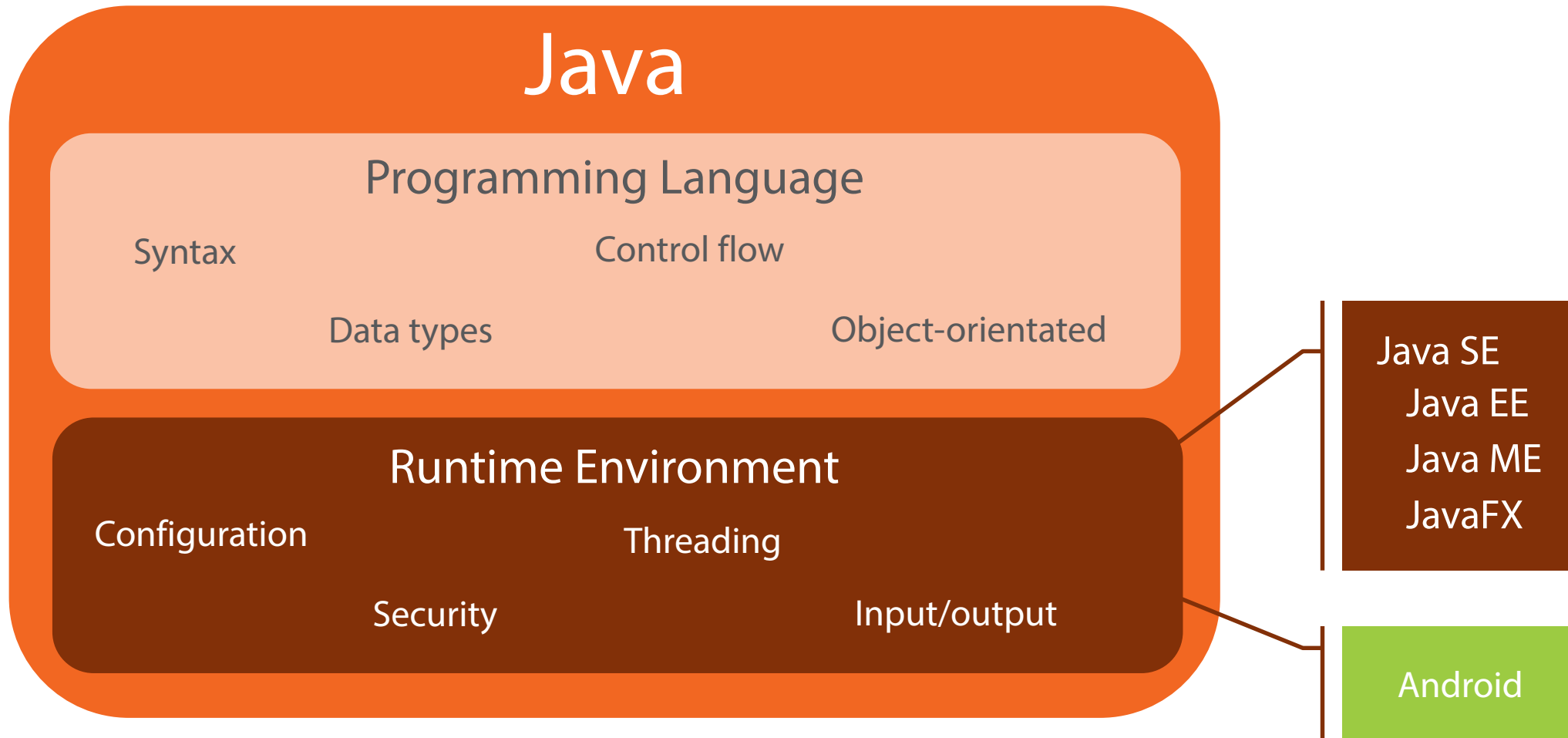
Brief Java overview

JRE vs. JDK

Setting up your environment

Choosing a Java IDE

What Is Java?



What Is Java?

Java

Programming Language

Syntax

Control flow

Data types

Object-orientated

This course!

Runtime Environment

Configuration

Threading

Security

Input/output

Java Fundamentals:
The Java Environment

JRE vs. JDK

Java Runtime Environment (JRE)

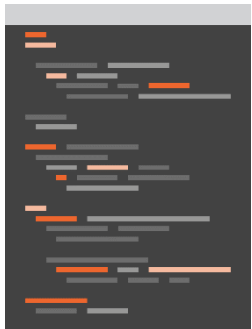
- Required to run Java apps
- End-users normally require only the JRE



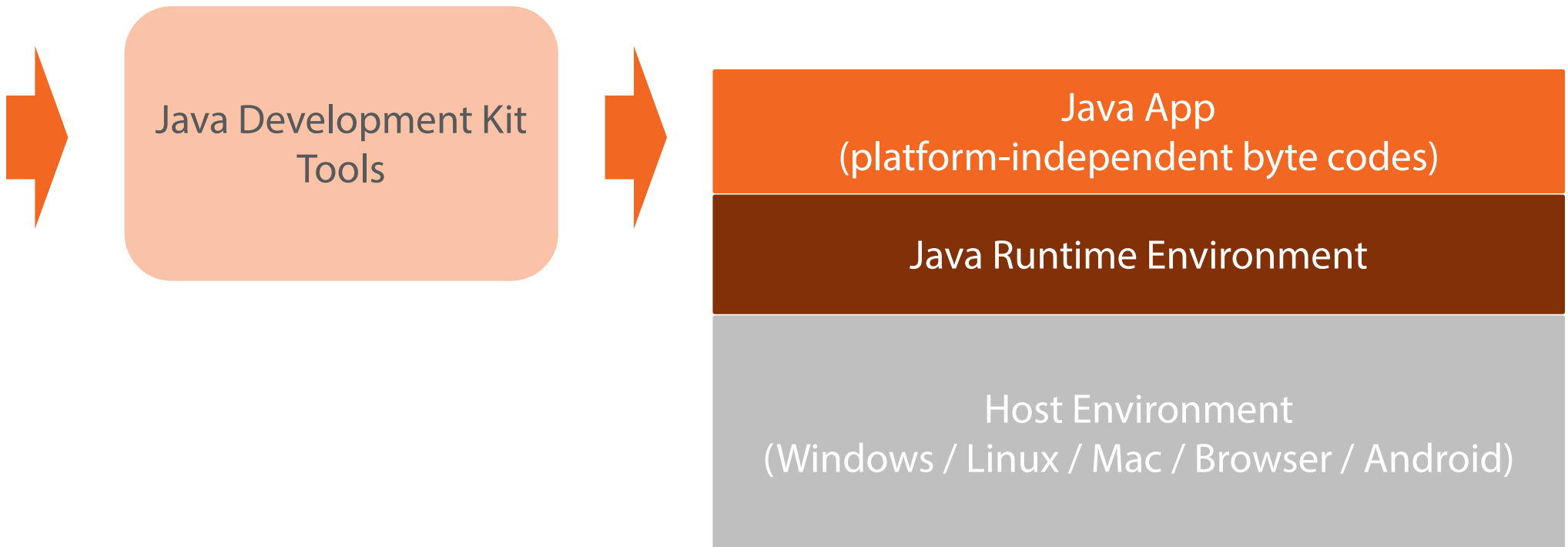
Java Development Kit (JDK)

- Provides tools required to create Java apps
- Developers normally require the JDK
- JDK installation includes JRE

Creating and Running Java Apps



xyz.java



Demo

Setting up the JDK

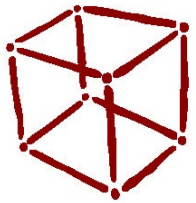
Latest version of JDK available at
<http://bit.ly/psjdkdownload>

JDK May be labeled “Java Platform”



Integrated Development Environment (IDE)

Many choices!



NetBeans



IntelliJIDEA

Both available for free

NetBeans IDE



Provided by Oracle for free

Available with support for Java SE/EE/ME and JavaFX at no extra cost

Does not support Android

An installer containing the JDK and the Java SE bundle of NetBeans is available

IntelliJ IDEA Community Edition

Free version of a commercial product

Supports Java SE and Android

Projects compatible w/ commercial version
(adds Java EE, server debugging, etc.)

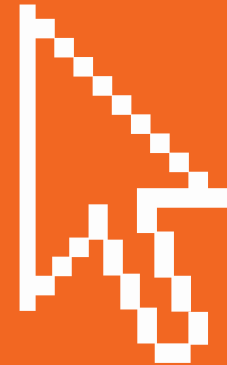


Demo

Setting up NetBeans IDE

Available with the JDK at
<http://bit.ly/psjdkdownload>

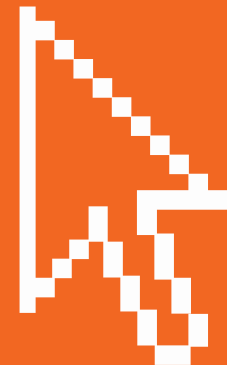
Available stand-alone with varying Java
platform support at
<https://netbeans.org/downloads>



Demo

Setting up IntelliJ IDEA Community Edition

Latest version available at
<http://bit.ly/intellijdownload>



Summary

- Java is a language and a runtime environment
 - Specific environment features may vary (Java SE/ME/EE, JavaFX, Android)
 - Language remains pretty consistent
- End-users require the Java Runtime Environment (JRE)
- Developers require the Java Development Kit (JDK)
- Many Integrated Development Environments (IDE) are available
 - Pick the one you like best