

Testers & Java

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- ▶ A tester in software development works to ensure that applications function as expected by identifying bugs and verifying that the system meets requirements.
- ▶ Testers use various testing methods, such as manual testing, automated testing, and performance testing, depending on the project's needs.
- ▶ Java testers typically work closely with developers to continuously test code in different environments, ensuring high-quality software throughout the development lifecycle.
- ▶ We will use JUnit, a very popular framework for unit testing in Java

Unit Testing and JUnit

- ▶ Unit Testing is a software testing method where individual components or units of code (such as functions or methods) are tested in isolation to ensure they work as intended.
- ▶ The goal is to validate that each unit of the code performs correctly and produces the expected results.
- ▶ Unit tests are typically written by developers or testers and run automatically during development to catch bugs early.
- ▶ Tools like JUnit are commonly used for unit testing, helping maintain code quality and reliability by enabling continuous testing throughout the development process.

How about you?

- ▶ How will you work with tests and Java?
- ▶ What are your expectations on these topics?

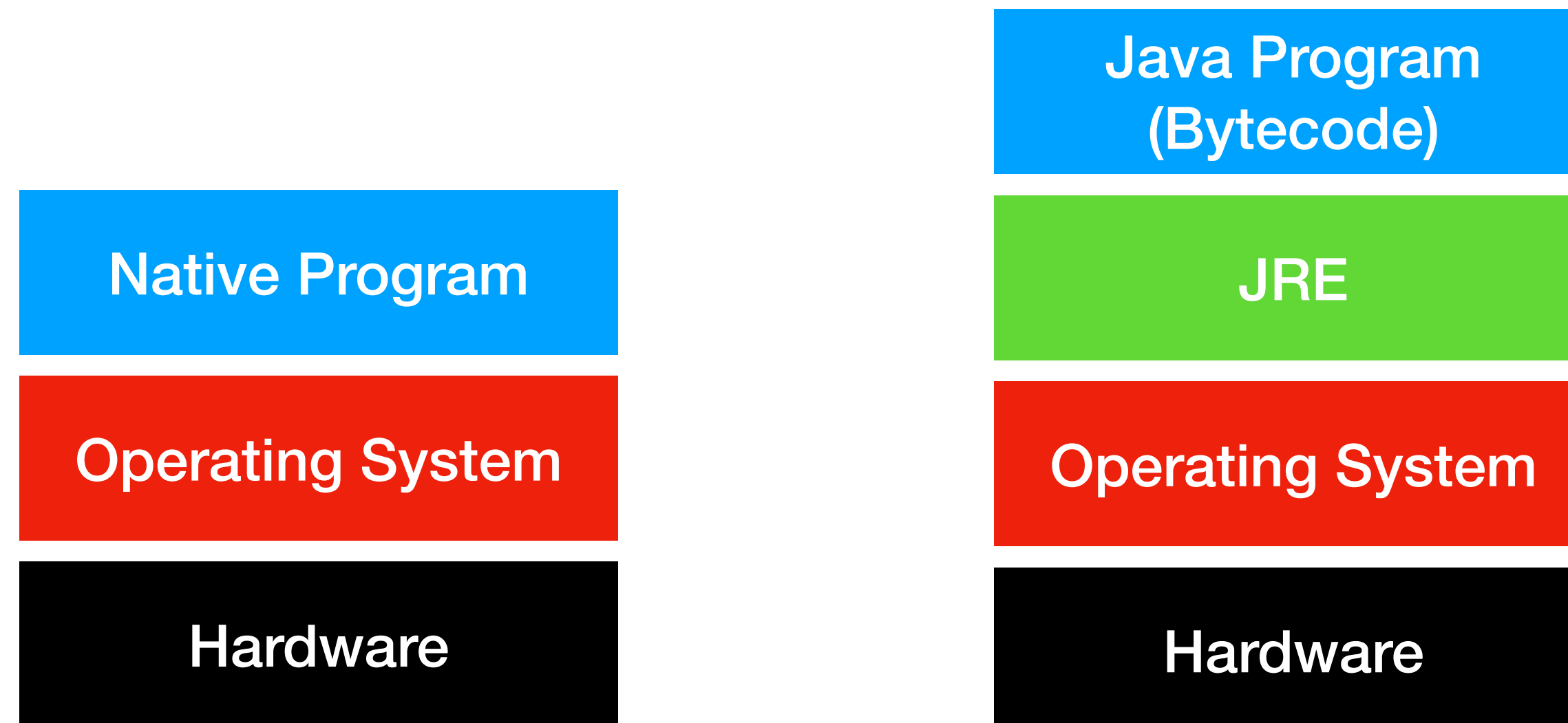
Java Basics

- ▶ Object-Oriented Language
- ▶ Portable code - write once, run anywhere
- ▶ Automatic memory management
- ▶ A language and a platform
- ▶ Very popular and trusted for enterprise applications

Java versions

- ▶ A new version of Java is currently released every 6 months
- ▶ Some versions are LTS versions (Long Term Support)
- ▶ LTS versions are supported for a long time, other versions only for 6 months
- ▶ The code in this course is backwards compatible to Java 8 and will work with Java 8 and all newer versions
- ▶ The example projects you can download are set to use Java 8, but you can run them in any newer version of Java

Java Runtime Environment (JRE)



Compilation and Running

Compiling the source code into Bytecode with the JDK (Java Development Kit)



Running the compiled Bytecode with the JRE (Java Runtime Environment)



Portable code

