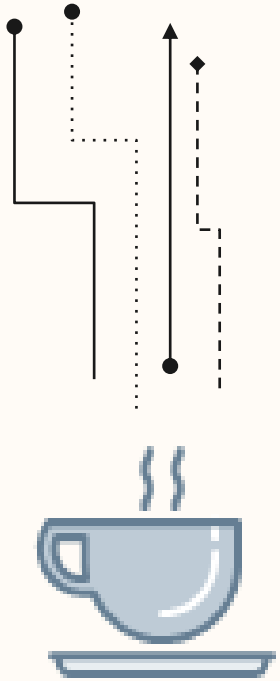
INTRODUCTION TO JAVA

UNIT 1



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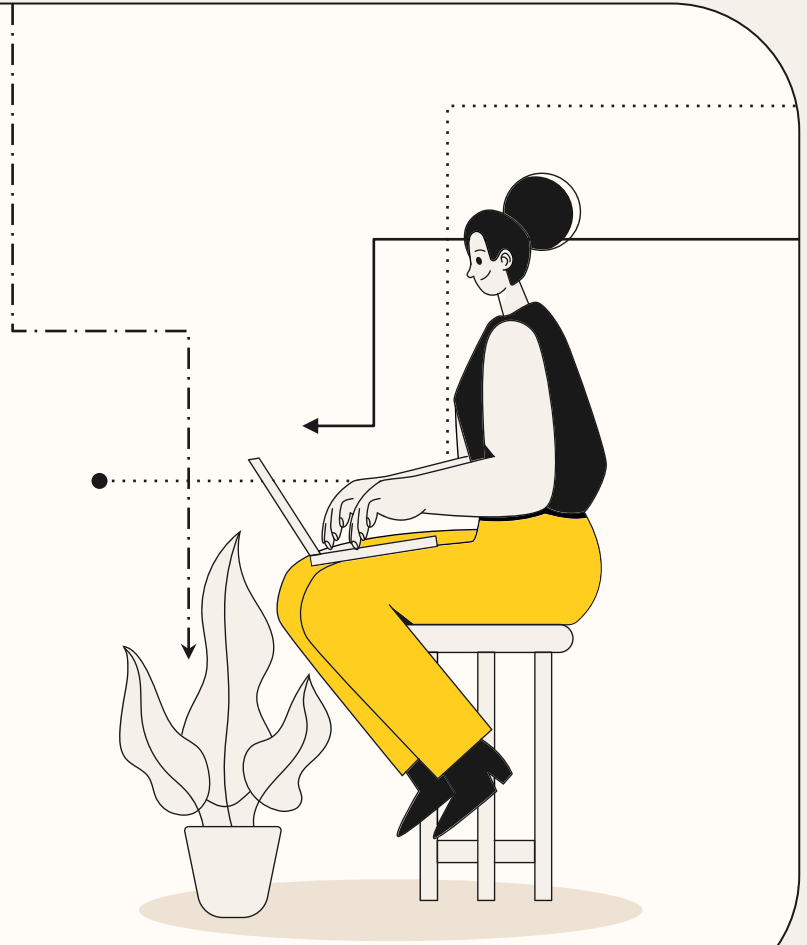
1.

Brief History of Java



James Gosling: created the Oak programming language

Java: created as a platform-independent language

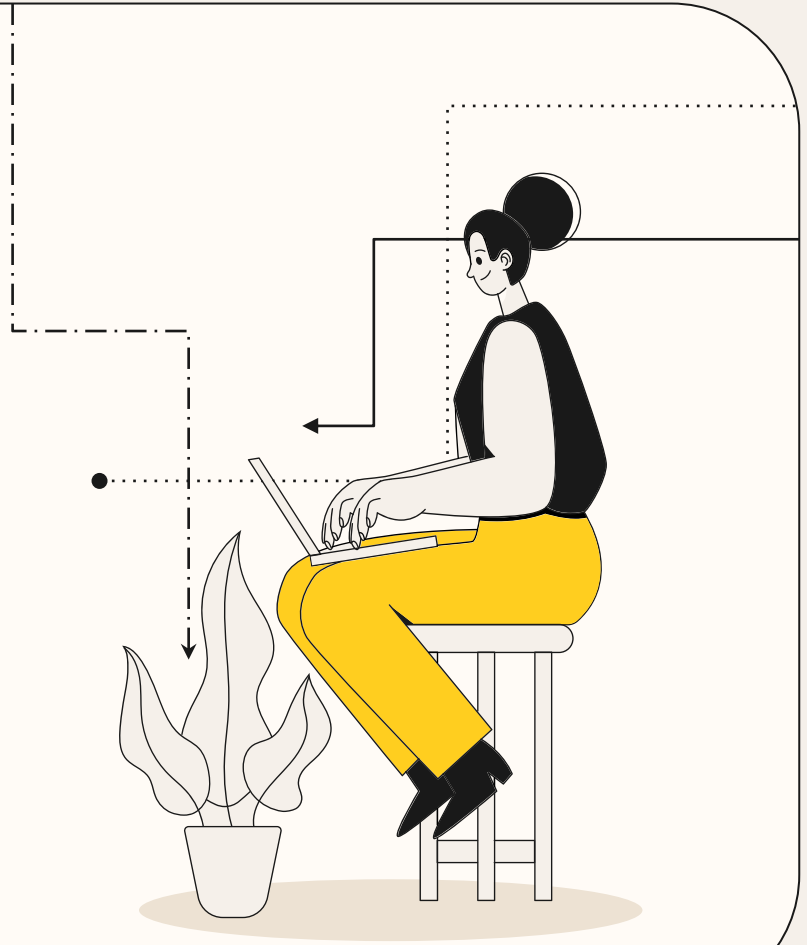
Star 7: first project developed using Java

Did you know?

Java runs on 3 billion devices worldwide!

2.

The Java Technology



Programming Language: Java can generate all kinds of applications that can be created using conventional programming languages.

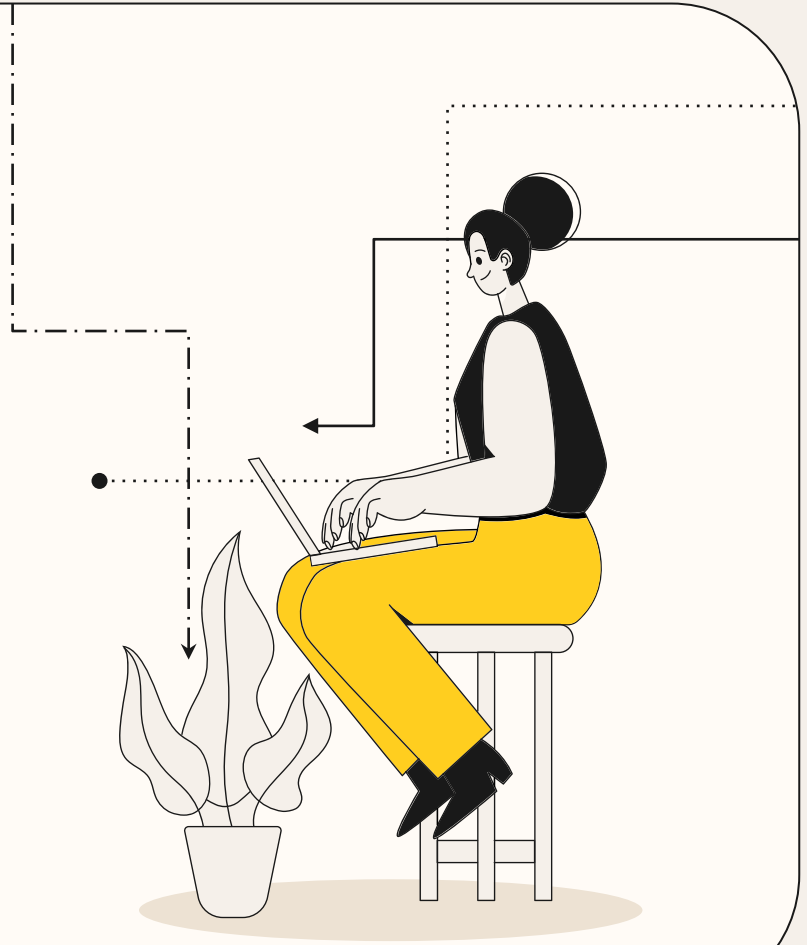
Development Language: Java provides the developer tools such as a compiler, an interpreter, a document generator, and a class file packaging tool.

Application Environment: Java applications are general-purpose programs running on a machine where the Java runtime environment (JRE) is installed.

Deployment Environment: refers to the environment or context in which a Java application is deployed or installed and made available for use by end-users.

3.

Features of Java



Java Virtual Machine (JVM)

is an interpreter that executes Java bytecode. When a Java program is compiled, it is converted into bytecode, which is a platform-independent code that can be executed by any JVM.

Garbage Collection

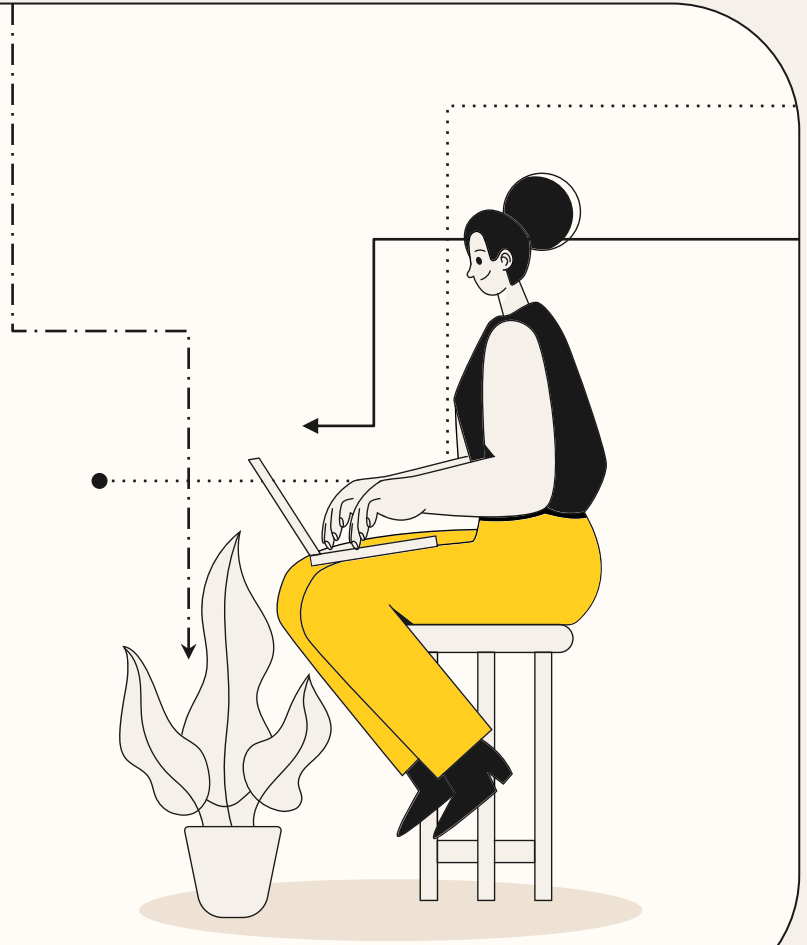
The garbage collection thread is responsible for deallocating memory previously allocated by the programmer.

Code Security

refers to the measures that are taken to ensure that Java code is secure and protected from unauthorized access or modification.

4.

Phases of Java



Phase 1: EDIT
Phase 2: COMPILE
Phase 3: LOAD
Phase 4: VERIFY
Phase 5: EXECUTE