



**How To Java** Tutorials

# Lesson **1**

## What is Java

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# What is Java

## Explain All about Java Language

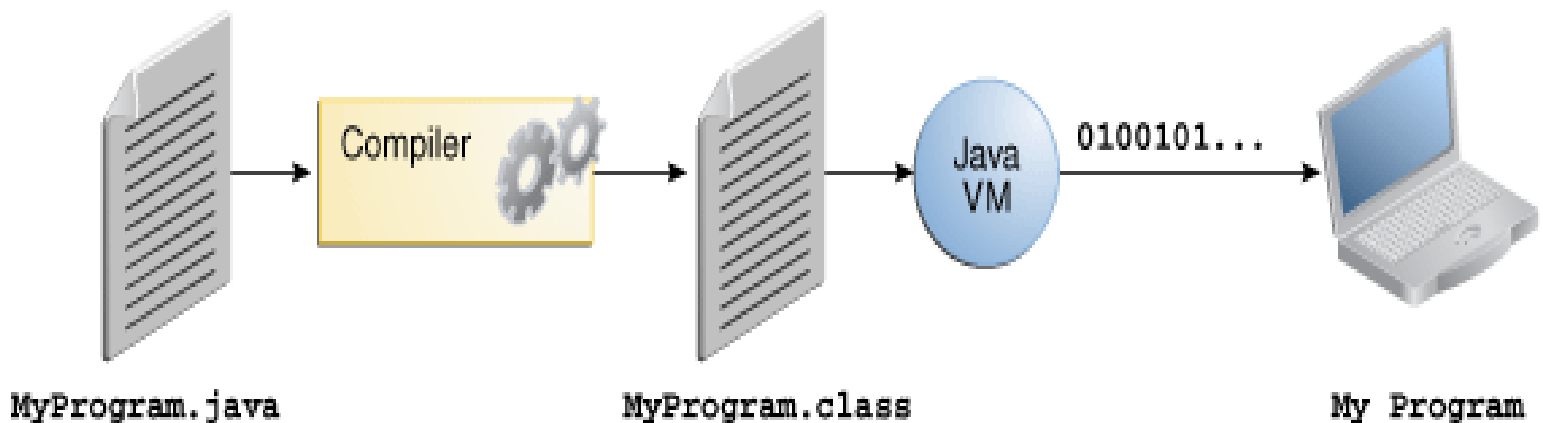
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**J**ava programming language is one of the most used Programming languages in the world. IT is used in So many different Things and Targets  
So Learning Java is amazing for any Developer or Beginner Who Want to be professional Developer.

Java technology is both a programming language and a Platform. We can Simply List the Advantages of JAVA here

- |  |   |
|--|---|
| <ul style="list-style-type: none"><li>-Simple</li></ul>          | <ul style="list-style-type: none"><li>-Architecture neutral</li></ul> |
| <ul style="list-style-type: none"><li>-Object oriented</li></ul> | <ul style="list-style-type: none"><li>-Portable</li></ul>             |
| <ul style="list-style-type: none"><li>-Distributed</li></ul>     | <ul style="list-style-type: none"><li>-High performance</li></ul>     |
| <ul style="list-style-type: none"><li>-Multi-threaded</li></ul>  | <ul style="list-style-type: none"><li>-Robust</li></ul>               |
| <ul style="list-style-type: none"><li>-Dynamic</li></ul>         | <ul style="list-style-type: none"><li>-Secure</li></ul>               |

In the Java programming language, all source code is first Written in plain text files ending with the .java extension. Those source files are then compiled into .class files by the Java compiler. A .class file does not contain code that is Native to your processor; it instead contains byte-codes — The machine language of the Java Virtual Machine<sup>1</sup> (Java VM). The Java launcher tool then runs your application with An instance of the Java Virtual Machine.



An overview of the software development process

Because the Java VM is available on many different operating Systems, the same .class files are capable of running on Microsoft Windows, the Solaris<sup>TM</sup> Operating System (Solaris OS), Linux, or Mac OS. Some virtual machines,

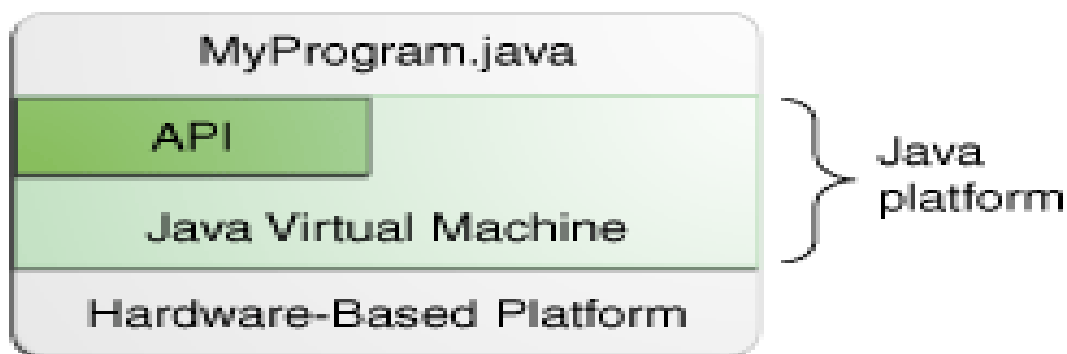
## Java as a Platform

A platform is the hardware or software environment in which a program runs. We've already mentioned some of the most popular platforms like Microsoft Windows, Linux, Solaris OS, and Mac OS. Most platforms can be described as a combination of the operating system and underlying hardware.

The Java platform differs from most other platforms in that it's a software-only platform that runs on top of other hardware-based platforms.

The Java platform has two components:

- 1- The Java Virtual Machine
- 2- The Java Application Programming Interface (API)



The API and JVM insulate the program from the underlying hardware.

The terms "Java Virtual Machine" and "JVM" mean a Virtual Machine for the Java platform.

The API is a large collection of ready-made software components that provide many useful capabilities. It is grouped into libraries of related classes and interfaces; these libraries are known as packages.

## What Java can Do?!

As a platform-independent environment. Java is amazing  
The general-purpose, high-level Java programming language is a powerful software platform. Every full implementation of the Java platform gives you the following features:

**Development Tools:** The development tools provide everything you'll need for compiling, running, monitoring, debugging, and documenting your applications.

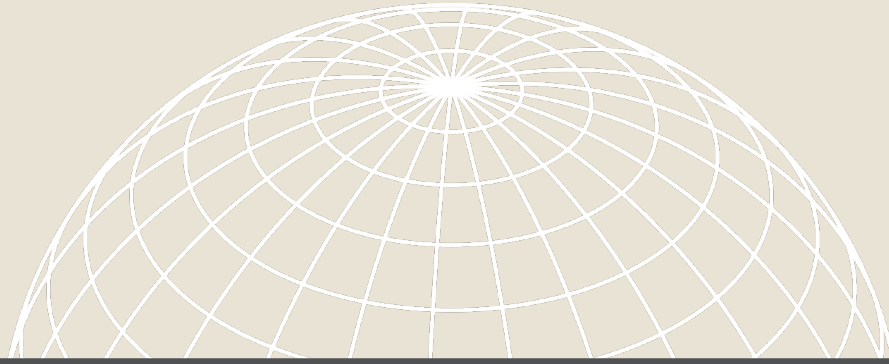
### **Application Programming Interface (API):**

The API provides the core functionality of the Java programming language. It offers a wide array of useful classes ready for use in your own applications. It spans everything from basic objects, to networking and security, to XML generation and database access, and more.

**Deployment Technologies:** The JDK software provides standard mechanisms such as the Java Web Start software and Java Plug-In software for deploying your applications to end users.

**User Interface Toolkits:** The JavaFX, Swing, and Java 2D toolkits make it possible to create sophisticated Graphical User Interfaces (GUIs).

**Integration Libraries:** Integration libraries such as the Java IDL API, JDBC API, Java Naming and Directory Interface (JNDI) API, and more.



# **Thank You For Watching**

**I am still not Better, But I always try .**

**See You Next**

