

# The Importance of Java

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Java is a General Purpose, class based, object oriented, Platform independent, portable, architecturally neutral, multithreaded, dynamic, distributed, portable and robust interpreted Programming Language.



Java is developed by James Gosling, Patrick Naughton and other developers at Sun Microsystems. Its development began

in 1991, as part of the project Green, and was published in November in 1995.

The big advantage compared to most of previous programming languages is that programs written in Java can run without modification on all operating systems for which there is a JVM (Java Virtual Machine), for the classic example programs written in C, it is necessary to adapt the platform (operating system) that is running a program.

## Advantages of Java

### Learning Curve

There is an extremely short learning curve with Java as it is easy to write, compile, debug, than other major programming languages like C++, Objective-C, C#. That's a huge benefit, because this ensures that Java programmers become productive in an extremely short span of time. Aside from that, what also makes Java more appealing is its fluent English-like syntax. This means that it is easy to read the logic.

### Object Oriented Programming

Another interesting advantage of using Java. This allows you to create modular programs and reusable code keeping the system extensible as well as flexible.

### Rich APIs

Java offers APIs for various activities like Database connection, networking, I/O, XML parsing, utilities, and much more.

### Powerful Open Source Rapid Development Tools

Large numbers of open source development tools that use Java have made Java an even more powerful option for developers i.e. Eclipse and NetBeans. They are extremely strong platforms and have contributed effectively in making Java what it is today. It makes coding and easy task and provides extremely powerful capabilities for debugging.

### Open Source Libraries

The large number of open source libraries and well matured with industrial support have also ensured that Java gets to be used everywhere. Some of these libraries have been contributed by many popular organizations like Apache, Google, Yahoo, Facebook, LinkedIn etc. That makes Java even more popular.

### Free

How could we miss on this point? When it comes to development, we are today faced with intense competition. Many small and medium enterprises want their software development and/or web app development done for their businesses, but they don't really have a big budget for that. With Java being free, it makes it cost effective.

### Community Support

Finally, there is extensive community support that Java has managed to muster. That goes a long way in helping new Java developers learn the art and become productive soon.

### **Disadvantages of Java**

Along with advantages, you will always come across disadvantages of any platform. There are some disadvantages that you will find on the way. Here's a compilation of some of the drawbacks of using Java:

- Java compiler is not well optimized yet compared to C++.
- There is no separation of specification from implementation.
- Memory management, with Java, is a little expensive.
- The lack of templates can limit the ability of Java to create high quality data structures.
- One can find some bugs in browsers and example programs.

What you need to note is that these are some of the disadvantages that are found with most programming languages. They are not unique to Java. However, having information of these disadvantages will help you use Java more constructively.

### **Why to learn java?**

Some of the advantages above will give you a good idea of why you should learn Java. Here's a recap of that:

### Popularity

We mentioned earlier that Java is extremely popular in the industry. Therefore, learning Java will make sure that you get associated with one of the most popular programming languages around.

### Job Opportunities

Now that the language is popular, more companies are making use of this programming language. That in turn means that some of the top companies are always looking to hire Java programmers be it in-house or offshore or onshore.

### Easy to Learn

We mentioned earlier that the learning curve with Java is short. Hence, you become more productive sooner.

### Various Uses

As we noted above, there are a large number of uses that Java is currently put to. Depending upon your likes and preferences, you can specialize in one or more of those industries.

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