**Top 10 Reasons to Learn Java**

Java is a general-purpose, object-oriented programming language that was designed by James Gosling at Sun Microsystems in 1991

Compilation of the Java applications results in the bytecode that can be run on any platform using the Java Virtual Machine. Because of this, Java is also known as a WORA (write once, run anywhere) language.

**Java’s Popularity and High Salary:**  
Java is one of the most popular languages in the world. It is used by some **9 million developers** and it **runs on around 7 billion devices** worldwide according to Oracle blogs. Because of the high demand for Java, Java developers are also quite sought after and they hold some of the most high-paying jobs in the industry.

**Java is Easy to Learn:**  
Java is quite easy to learn and can be understood in a short span of time as it has a syntax similar to English

**Java has a Large Community:**  
There is a large online community of Java users ranging from beginner, advanced and even expert levels that are particularly helpful in case any support is required. Some of the online communities for learning purposes are **StackOverflow, Java Forums**, etc.

**Java has an abundant API:**  
Java has an abundant Application Programming Interface (API) that includes many Java classes, packages, interfaces, etc. This is useful for constructing applications without necessarily knowing their inside implementations.

Java has mainly three types of API i.e. **Official Java core API’s, Optional official Java API’s and Unofficial API’s.** These API’s overall are used for almost everything including networking, I/O, databases, media, XML parsing, speech synthesis, etc

**Java has multiple Open Source Libraries:**  
Open source libraries have resources that can be copied, studied, changed, shared, etc. There are multiple open source libraries in Java such as ***JHipster, Maven, Google Guava, Apache Commons***, etc. that can be used to make Java development easier, cheaper and faster.

**Java has Powerful Development Tools:**  
There are many Integrated development environments (IDE’s) in Java that provides various facilities for software development to programmers. Powerful Java IDE’s such as **Eclipse, NetBeans, IntelliJ IDEA, etc.** play a big role in the success of Java.

**Java is Free of Cost:**  
One of the reasons Java is very popular among individual programmers is that it is available under the Oracle Binary Code License (BCL) free of charge. This means that Java is free for development and test environments, but for commercial purposes, a small fee is required.

**Java is Platform Independent:**  
Java is platform-independent as the Java source code is converted to byte code by the compiler which can then be executed on any platform using the Java Virtual Machine. Java is also known as a WORA (write once, run anywhere) language because it is platform-independent.

Also, the development of most Java applications occurs in a Windows environment while they are run on a UNIX platform because of the platform-independent nature of Java.

**Java has great Documentation Support:**  
The documentation support for Java is excellent using Javadoc which is the documentation generator for Java. It uses the Java source code to generate the API documentation in HTML format. So, Javadoc provides a great reference while coding in Java so that understanding the code is quite simple.

**Java is Versatile:**  
Java is very versatile as it is used for programming applications on the web, mobile, desktop, etc. using different platforms. Also, Java has many features such as dynamic coding, multiple security features, platform-independent characteristics, network-centric designing, etc. that make it quite versatile.

# 6 Amazing Ways You Can Use Java

## Mobile Applications

Once the only official language of Android, Java is now joined by Kotlin as one of the two official languages for mobile application development for the Google OS. The programming language is supported by Android Studio and facilitates secure and efficient development for a wide range of mobile applications.

## Internet of Things (IoT) Devices

The IoT is a powerful entity that facilitates communication and data transmission between devices, software, and the internet without human intervention. It has many applications for the present and future, providing previously static devices with new capabilities.

Combined with technologies like artificial intelligence (AI), Java can help you power devices remotely, connect appliances and other objects, and much more. For example, using an app on your mobile phone, you can turn on your slow cooker or thermostat from a distance — even when you’re far away from your home. The IoT also has implications for many industries, including healthcare, security, utilities, supply-chain management, and others.

## Cloud Applications

Cloud applications — applications that involve data processed on a cloud server — are ubiquitous these days. There are many types of services that use cloud computing, from storage to file-sharing. Industries across the spectrum rely on cloud apps like Dropbox, Amazon Web Services, Slack, and Salesforce.

Java is a great programming language for building cloud apps.  In fact, many of the biggest companies in the world use Java to create cloud apps — Gmail, for instance, is an example of a cloud-based application built with Java.

## Web Applications

Web application development was one of the first uses of Java and remains a choice language for this purpose. It offers many features that make it a great option for complex web apps: security, scalability, and performance. Additionally, there is an abundance of tools developers can access to support their work, including Play Framework.

## Games

The force behind games such as Minecraft, Java is an ideal programming language for game development, particularly those that run on Android devices.

## Enterprise Applications

Java is also suited for enterprise applications. This software is used for enterprises — often large businesses that need streamlined services delivered in one place — because it can connect and give access to numerous departments and employees, making delivery more convenient for everyone.

## Scientific Applications

Scientific applications incorporate and use math to perform practical, real-world computations, and calculations. Fields like healthcare and research use them frequently. Because these apps and the work associated with them depend on accuracy and reliability, not to mention security, Java is often the go-to language for creating them