Java

# License

Java is a general-purpose computer-programming language that is concurrent, class-based, object-oriented and it is intended to let application developers "write once, run anywhere" meaning that compiled Java code can run on all platforms that support Java without the need for recompilation.

On November 13, 2006, Sun released much of its Java virtual machine (JVM) as [free and open-source software](https://en.wikipedia.org/wiki/Free_and_open-source_software), (FOSS), under the terms of the [GNU General Public License](https://en.wikipedia.org/wiki/GNU_General_Public_License) (GPL). On May 8, 2007, Sun finished the process, making all of its JVM's core code available under [free software](https://en.wikipedia.org/wiki/Free_software)/open-source distribution terms, aside from a small portion of code to which Sun did not hold the copyright.

# Community

Community size is important because the larger a programming language community is; the more support you'd be likely to get. As you step into the programming world, you'll soon understand how vital support is, as the developer community is all about giving and receiving help. Moreover, the larger a community, the more people will be building useful tools to make development in that particular language easier.

StackOverflow is a programming Q&A site you will no doubt become intimate with as a coding beginner. Java has a huge community for both back-end web development and Android development.

The more useful projects there are, the more likely someone has already built a function you need and built it well, which will greatly speed up your development process. GitHub has over 1.5 million Java projects, over 1.1k of which have been starred by over 500 people, making it 2nd place in terms of useful projects

# Documentation

The Best Documentation Can Be Found will be on Oracle Main Site.

https://docs.oracle.com/javase/10/

# Big projects on this technology

# Screen%20Shot%202018-04-04%20at%208.51.25%20AM.png

# Learning Curve

Java is application layer programming language and is not very difficult to learn. It does not require any prior programming experience to learn java coding. Learning Java can be really easy if you already know a programming language.

Java has been around for such a long time, so it’s really well established. There are a lot of great books, online resources.

There are probably more Java programmers than any other type of programmer in the world, so a lot of people already know Java and it’s easy to find people who can help you out and mentor you.

Java derives its syntax from C, and lots of other languages also derive their syntax from C, so if you learn Java, then learning a language like Javascript, C#, or C++ is much easier.

It’s an object-oriented language, so a lot of the foundational concepts you learn inside of Java are transferable to other languages.

# Maven

A software project management and comprehension tool which can manage a project's build, reporting and documentation from a central piece of information divided in one or several Project Object Model (POM) files.

# Jetty

Eclipse Jetty is a Java HTTP (Web) server and Java Servlet container. Jetty is developed as a free and open source project as part of the Eclipse Foundation. The web server is used in products such as Apache ActiveMQ, Alfresco, Scalatra, Apache Geronimo, Apache Maven, Apache Spark, Google App Engine, Eclipse, FUSE, iDempiere, Twitter's Streaming API and Zimbra. Jetty is also the server in open source projects such as Lift, Eucalyptus, Red5, Hadoop and I2P. Jetty supports the latest Java Servlet API (with JSP support) as well as protocols HTTP/2 and WebSocket.

# Spark

Spark Framework is a simple and expressive Java web framework DSL built for rapid development. Sparks intention is to provide an alternative for Java developers that want to develop their web applications as expressive as possible and with minimal boilerplate. With a clear philosophy Spark is designed not only to make you more productive, but also to make your code better under the influence of Spark’s sleek, declarative and expressive syntax.

# Companies using Spark



# Local Environment Setup

# Deployment process (Centos OS)

* **Install wget**

yum install wget

* **Intsall maven**

cd

wget <http://www-us.apache.org/dist/maven/maven-3/3.5.3/binaries/apache-maven-3.5.3-bin.tar.gz>

tar -zxvf apache-maven-3.5.3-bin.tar.gz

sudo mv ~/apache-maven-3.5.3 /opt

sudo chown -R root:root /opt/apache-maven-3.5.3

sudo ln -s /opt/apache-maven-3.5.3 /opt/apache-maven

echo 'export PATH=$PATH:/opt/apache-maven/bin' | sudo tee -a /etc/profile

source /etc/profile

* **Install Java**

sudo yum install java-1.8.0-openjdk-devel

sudo yum install java-1.8.0-openjdk

echo "JAVA\_HOME=$(readlink -f /usr/bin/java | sed "s:bin/java::")" | sudo tee -a /etc/profile source /etc/profile

* **Run Application**

mvn install

mvn exec:java -Dexec.args=dev/prd

**Frontend**

* **Install Node**

curl --silent --location https://rpm.nodesource.com/setup\_8.x | sudo bash -

sudo yum -y install nodejs

* **Run React**

npm run build

cp -a /your/build/folder/location/build/\* /var/www/html/

**NGINX**

#

# The default server

#

server {

listen 80;

listen [::]:80;

server\_name \_;

root /var/www/html;

index index.html index.htm;

location / {

try\_files $uri /index.html;

}

error\_page 404 /404.html;

location = /40x.html {

}

error\_page 500 502 503 504 /50x.html;

location = /50x.html {

}

}

#

# The default server

#

server {

listen 80;

server\_name spark.api.com;

root /usr/share/nginx/html;

# Load configuration files for the default server block.

include /etc/nginx/default.d/\*.conf;

location / {

proxy\_pass http://127.0.0.1:5000;

proxy\_redirect off;

proxy\_set\_header Host $host;

proxy\_set\_header X-Forwarded-Host $host;

proxy\_set\_header X-Forwarded-Server $host;

proxy\_set\_header X-Forwarded-For $proxy\_add\_x\_forwarded\_for;

proxy\_set\_header X-Forwarded-Proto $scheme;

proxy\_set\_header X-Real-IP $remote\_addr;

}

error\_page 404 /404.html;

location = /40x.html {

}

error\_page 500 502 503 504 /50x.html;

location = /50x.html {

}

}