Web Application Development

Discussion about Java and Other Technologies

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Agenda

- Discuss about the technology landscape of the world. (Stack Overflow Developer Survey 2021)
- Popular frameworks, libraries and tools you should look into.
- Why is Java still popular in Vietnam?
- What kind of technologies to go with Java? (Java Developer Productivity Survey 2022)
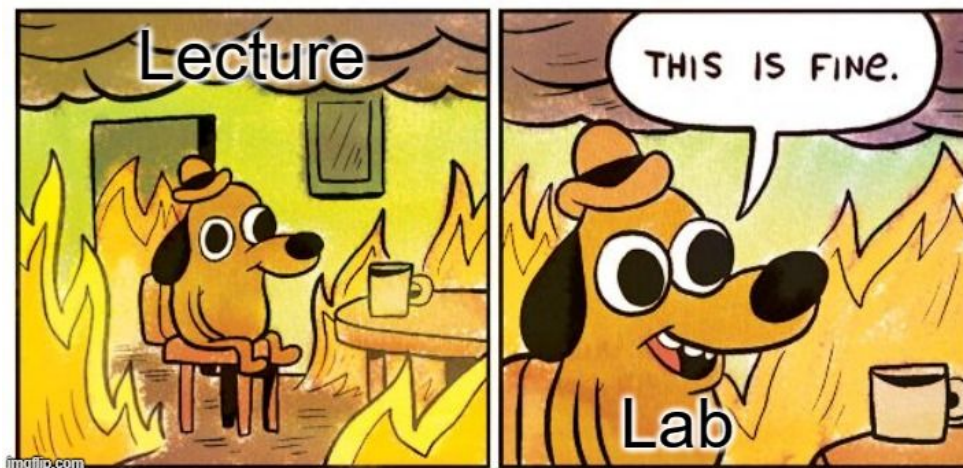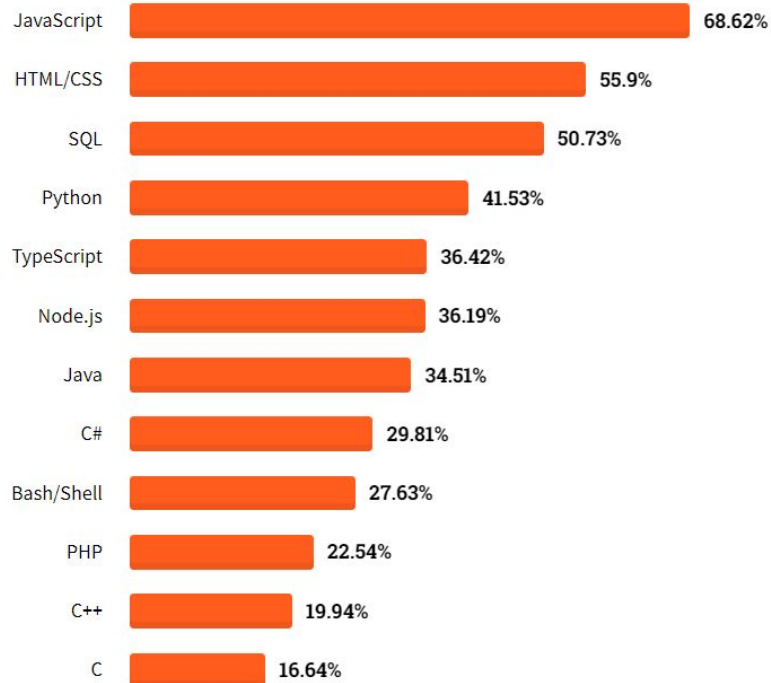
Stack Overflow Developer Survey 2021

To discuss about different popular technologies and frameworks to learn

https://insights.stackoverflow.com/survey/2021#experience-learn-code

Programming, scripting, and markup languages

Professional Developers

Language	Percentage
JavaScript	68.62%
HTML/CSS	55.9%
SQL	50.73%
Python	41.53%
TypeScript	36.42%
Node.js	36.19%
Java	34.51%
C#	29.81%
Bash/Shell	27.63%
PHP	22.54%
C++	19.94%
C	16.64%

Database

Professional Developers

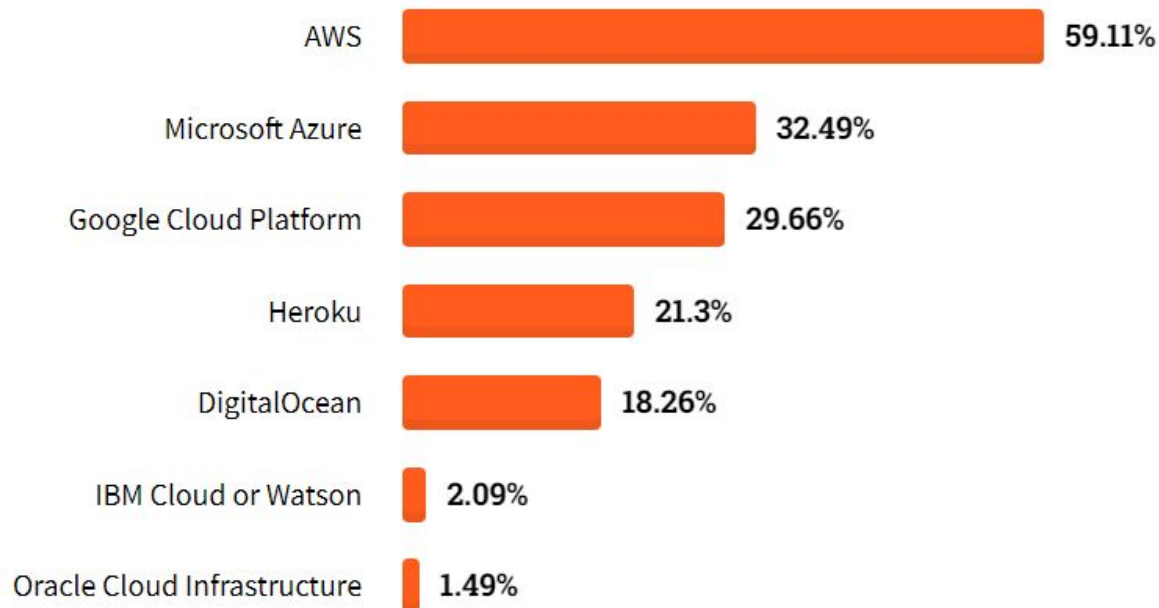| Database	Percentage
MySQL	48.19%
PostgreSQL	44.08%
SQLite	30.86%
Microsoft SQL Server	29.43%
MongoDB	28.03%
Redis	24.51%
MariaDB	17.14%
Firebase	15.89%
Elasticsearch	15.72%
Oracle	12.89%
DynamoDB	8.7%
Cassandra	2.91%
IBM DB2	2.14%
Couchbase	1.72%
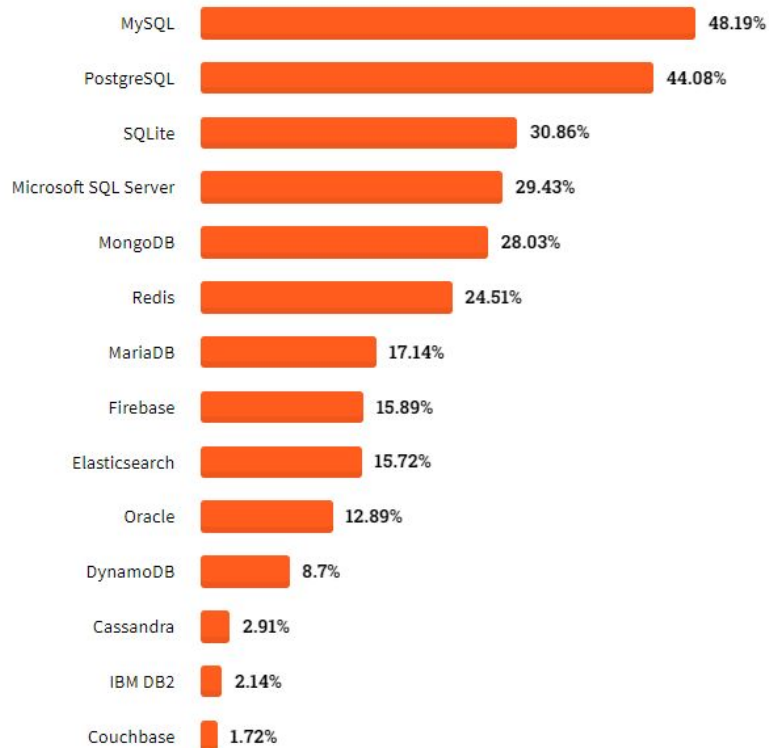
Cloud Platform

All Respondents   **Professional Developers**

AWS	59.11%
Microsoft Azure	32.49%
Google Cloud Platform	29.66%
Heroku	21.3%
DigitalOcean	18.26%
IBM Cloud or Watson	2.09%
Oracle Cloud Infrastructure	1.49%

Web Frameworks

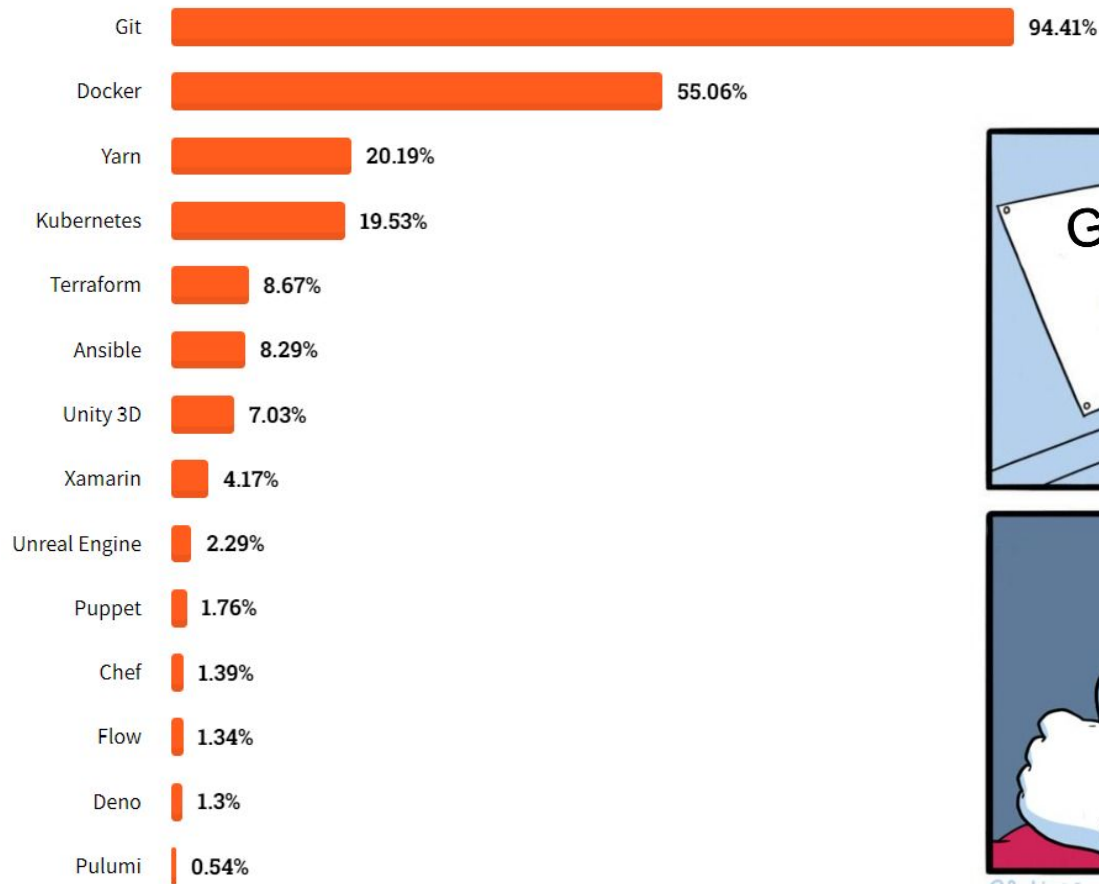| Framework	Percentage
React.js	41.4%
jQuery	34.52%
Angular	26.23%
Express	23.6%
ASP.NET Core	20.3%
Vue.js	20.09%
ASP.NET	17.36%
Spring	16.48%
Flask	13.79%
Django	13.02%
Angular.js	12.71%
Laravel	10.89%
Ruby on Rails	7.89%
Gatsby	4.27%
Symfony	4.25%
FastAPI	3.87%

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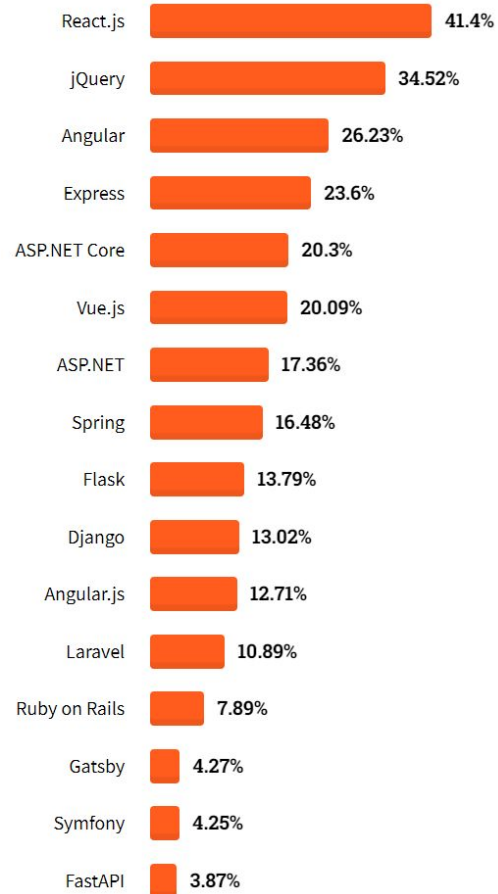
Other Popular Framework and Libraries

Framework/Library	Percentage
.NET Framework	34.2%
NumPy	33.84%
.NET Core / .NET 5	31.5%
Pandas	28.12%
TensorFlow	16.53%
React Native	14.51%
Flutter	13.55%
Keras	10.14%
Qt	9.9%
Torch/PyTorch	9.89%
Cordova	7.18%
Apache Spark	5.83%
Hadoop	4.43%

Other Popular Tools

Git — 94.41%
Docker — 55.06%
Yarn — 20.19%
Kubernetes — 19.53%
Terraform — 8.67%
Ansible — 8.29%
Unity 3D — 7.03%
Xamarin — 4.17%
Unreal Engine — 2.29%
Puppet — 1.76%
Chef — 1.39%
Flow — 1.34%
Deno — 1.3%
Pulumi — 0.54%

Git   Docker

Developer

Popular IDEs

IDE	Percentage
Visual Studio Code	71.07%
Visual Studio	32.92%
IntelliJ	29.69%
Notepad++	29.09%
Vim	24.82%
Android Studio	21.76%
Sublime Text	19.66%
PyCharm	16.27%
Eclipse	14.93%
Xcode	12.66%
Atom	10.31%
IPython/Jupyter	9.95%
Webstorm	9.15%
PHPStorm	8.55%
NetBeans	6.75%
Emacs	5.25%

What do you do when you get stuck?
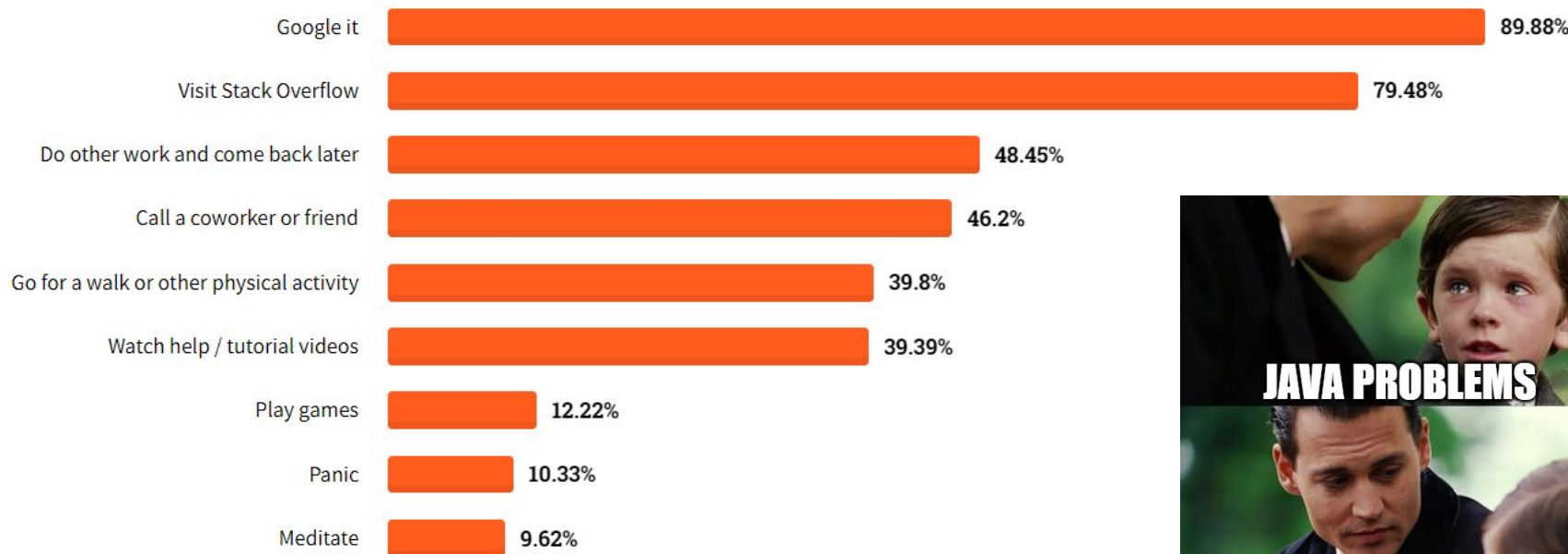
Why should we learn Java?

Java

- Java is one of the **most popular** languages in the world.
    - Run on **15 billion** devices
    - Used by **12 million** developers
- Beginner Friendly
    - Large Community
    - Excellent Document Support
- Many big tech companies used Java as their back-end systems

MAJOR COMPANIES THAT USE Java — Linked in, NETFLIX, Google, Capital One, amazon, Apple, slack, intel, NASA, ebay, android, Spotify, Square

https://www.oracle.com/java/moved-by-java/timeline/

Java is still the king of job market in Vietnam

Attractive Salaries in Vietnam

Senior Java Developers
$ 2,000 - 2,300 USD

Mid-Senior Java Dev (Spring, SQL, HTML)
$ 1,500 - 2,500 USD

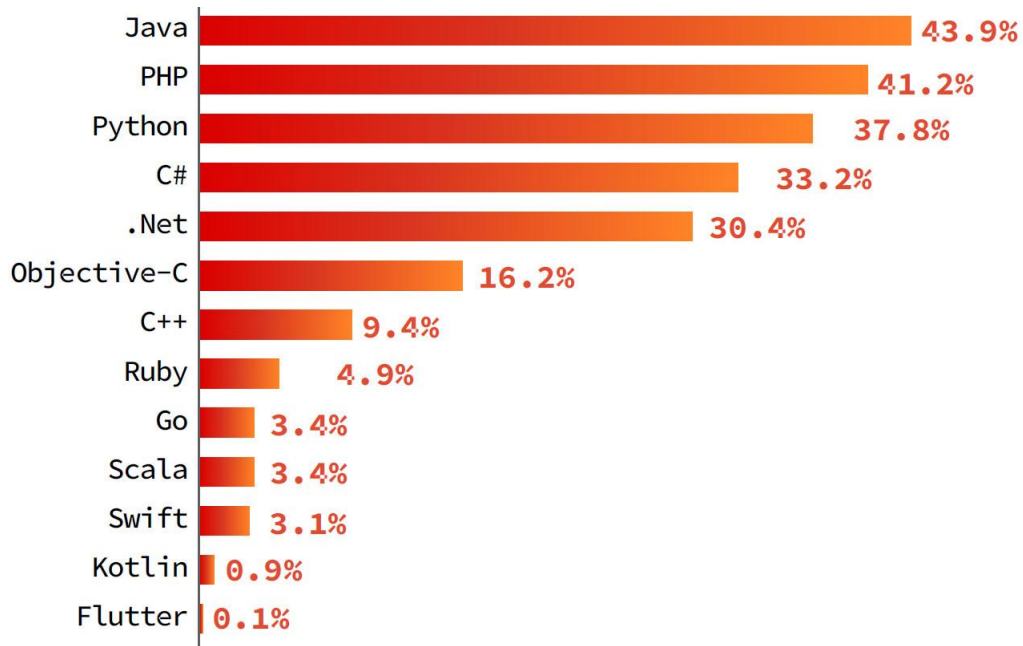**Backend Developer (Java/Spring)**
$ 1,200 - 3,500 USD

Java Developer (Spring, MySQL)
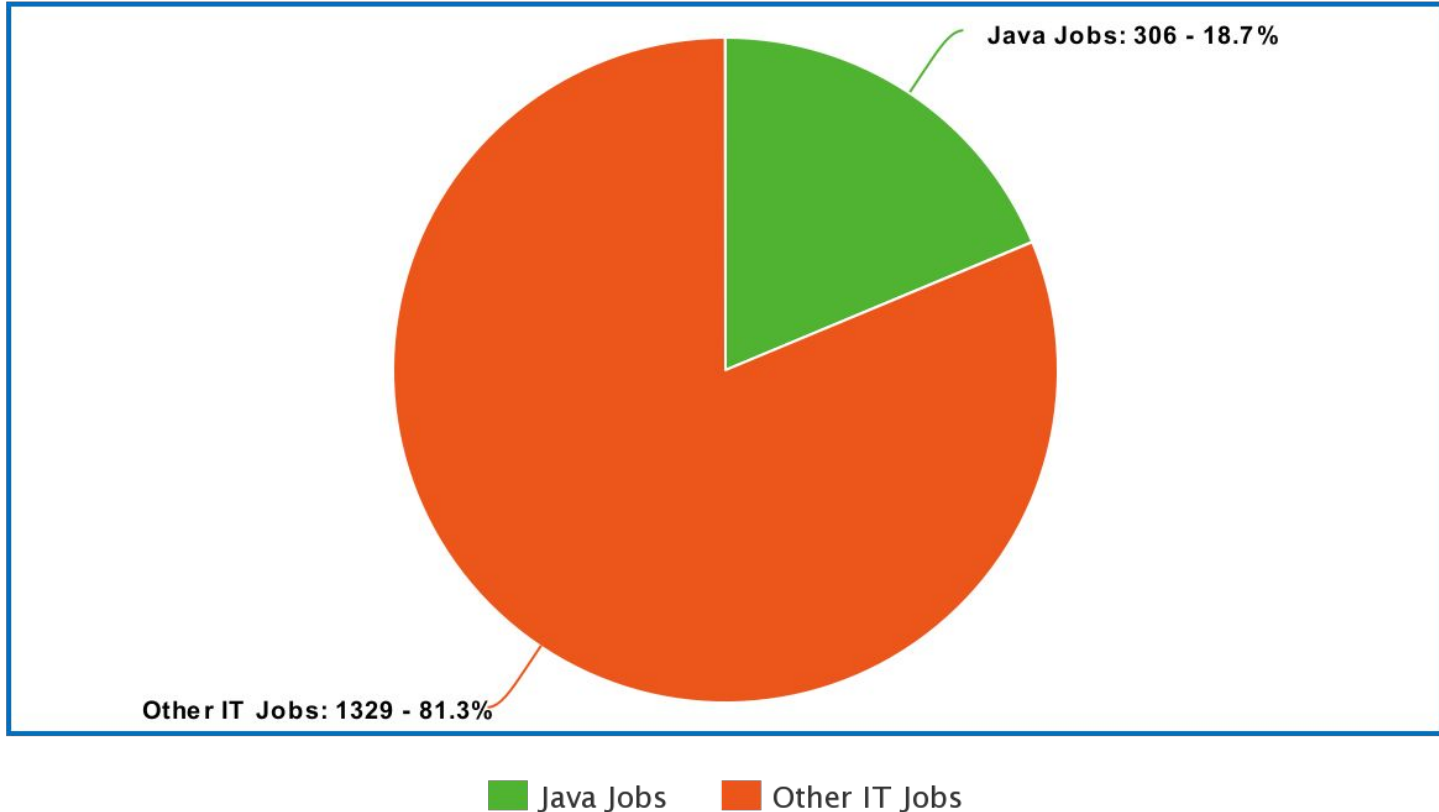$ 1,000 - 2,500 USD

The most popular language at work in Vietnam
(Vietnam Developer Report 2019)

Language	Percentage
Java	43.9%
PHP	41.2%
Python	37.8%
C#	33.2%
.Net	30.4%
Objective-C	16.2%
C++	9.4%
Ruby	4.9%
Go	3.4%
Scala	3.4%
Swift	3.1%
Kotlin	0.9%
Flutter	0.1%

Nearly 1 out of every 5 IT jobs is Java

Java Job Market

ITViec.com

Java Jobs: 306 - 18.7%

Other IT Jobs: 1329 - 81.3%

Java Jobs   Other IT Jobs

Java Developer Productivity Survey 2022

To get you started with labs this week

https://www.jrebel.com/resources/java-developer-productivity-report-2022

Which JDK Programming Languages are You Using in Your Main Application?

37% Java 8

12% Java 12 or newer

29% Java 11

Java 8 **37%**

Java 11 **29%**

Java 12 or newer **12%**

Kotlin **8%**

Groovy **6%**

Java 7 or older **5%**

Scala **3%**
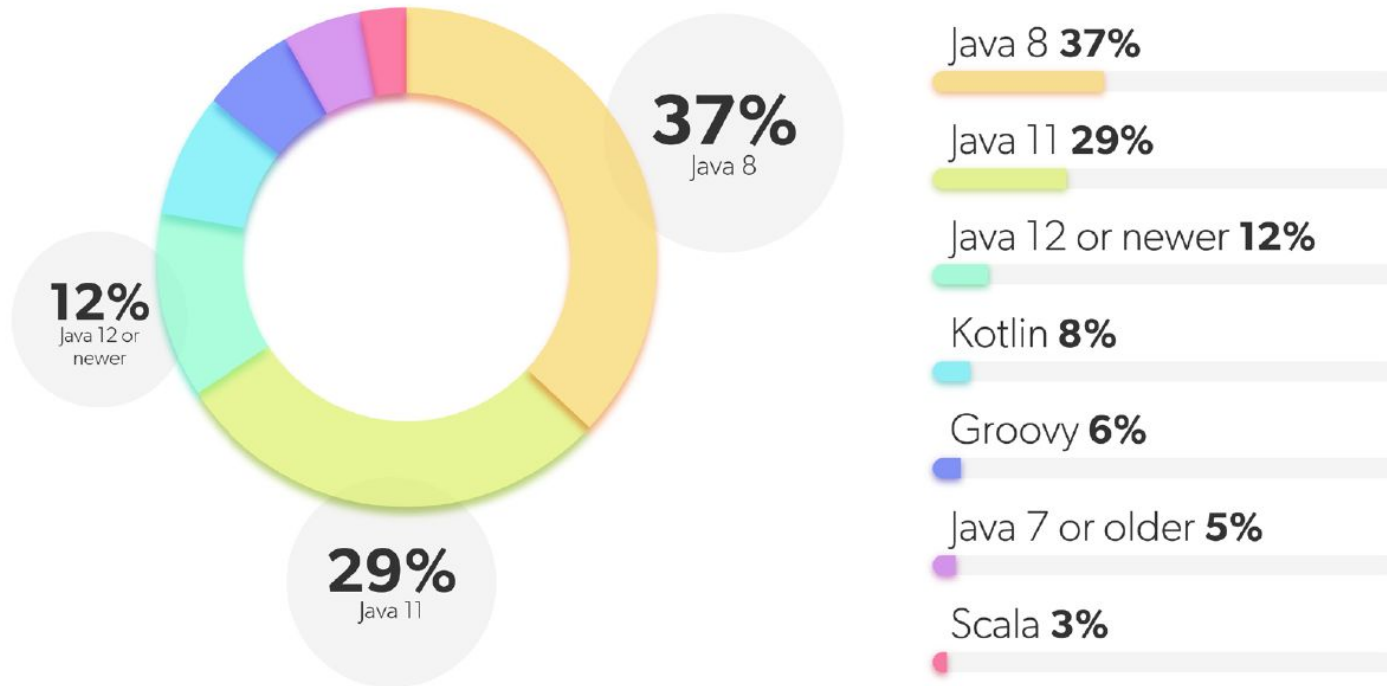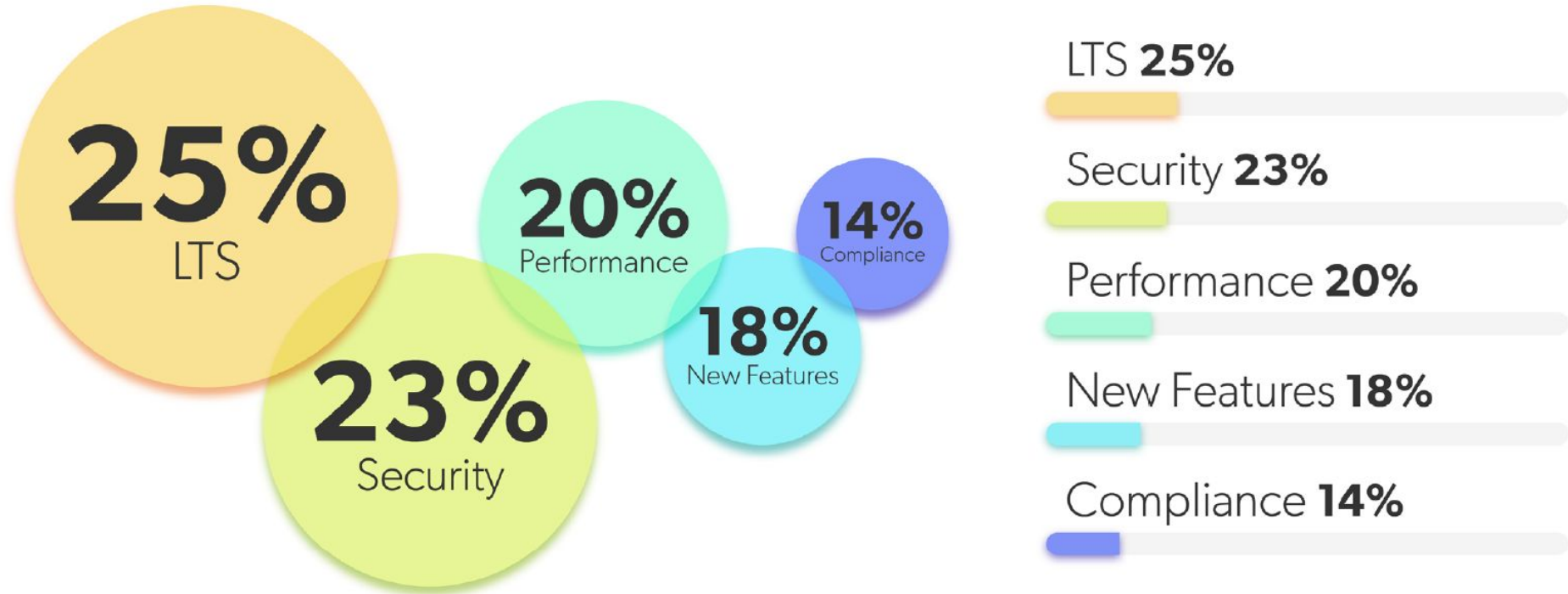
When Will You Upgrade to JDK 17?

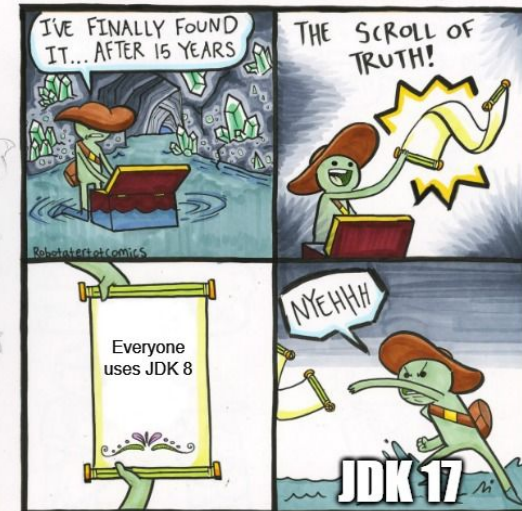25% 6-12 months

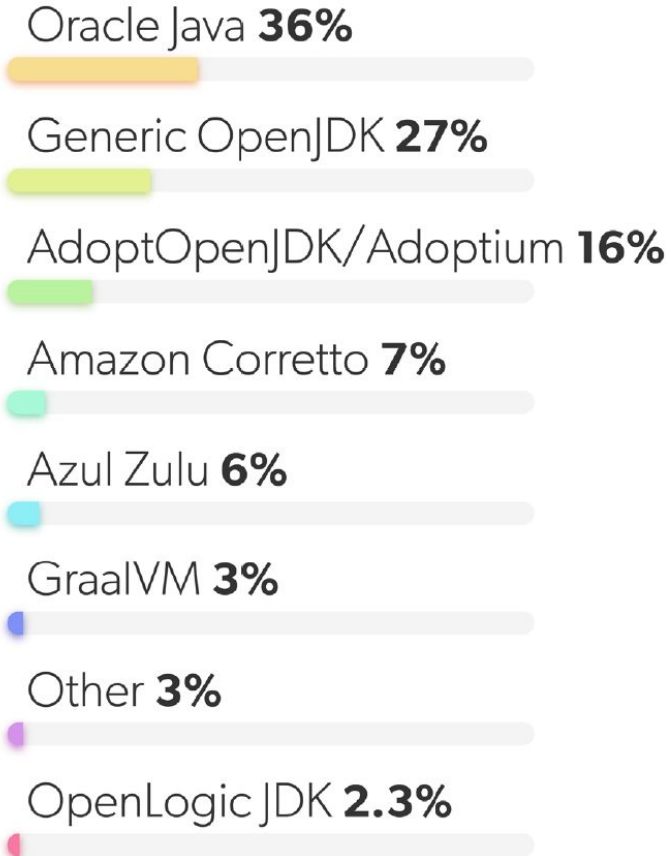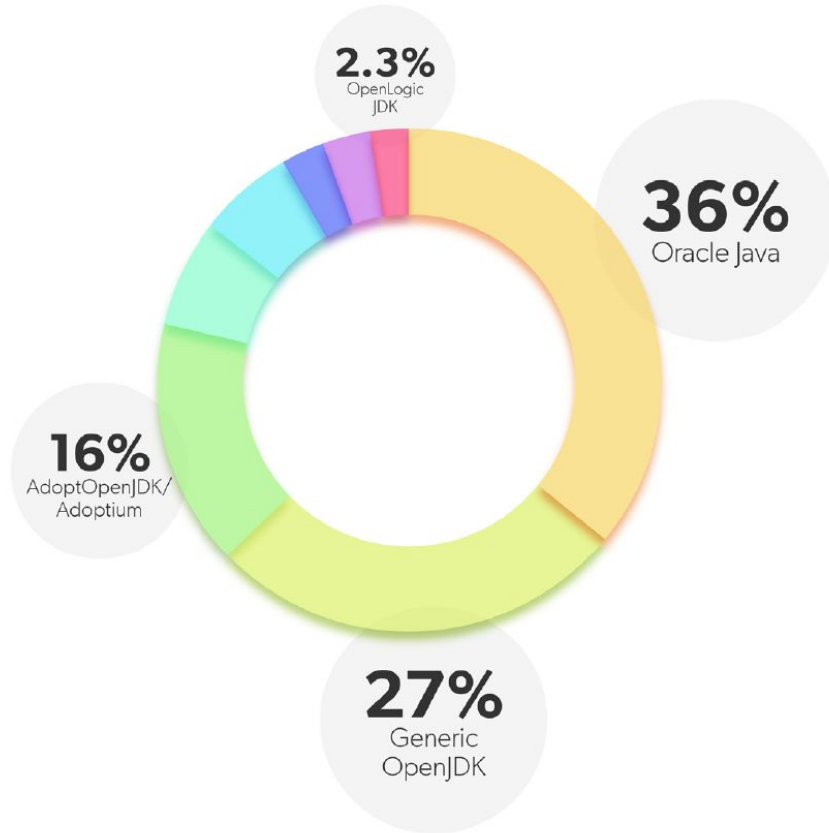37% Within 6 months

30% After 12 months
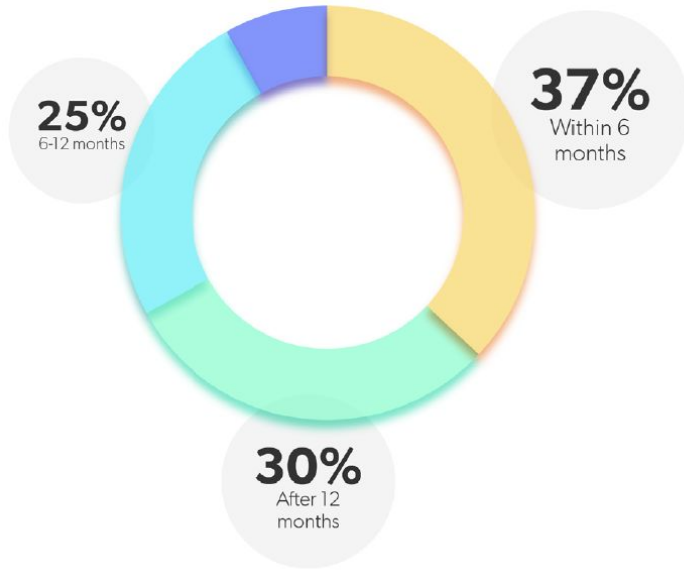
Within the next 6 months **37%**

Sometime after the next 12 months **30%**

Between 6-12 months **25%**

Never **8%**

What JRE/JDK Distribution Do You Use?
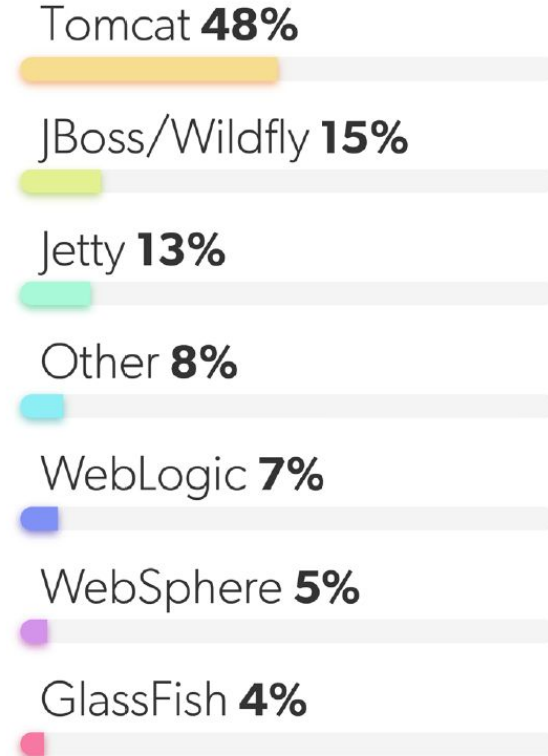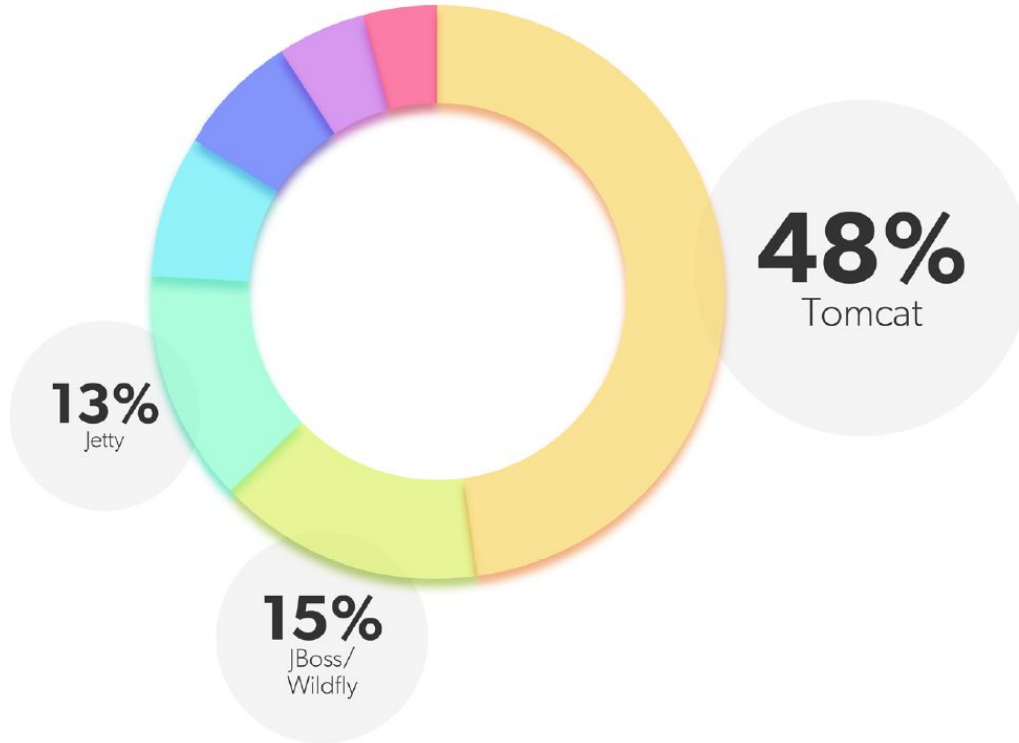

2.3%
OpenLogic JDK

36%
Oracle Java

16%
AdoptOpenJDK/
Adoptium

27%
Generic
OpenJDK

Oracle Java **36%**

Generic OpenJDK **27%**

AdoptOpenJDK/Adoptium **16%**

Amazon Corretto **7%**

Azul Zulu **6%**

GraalVM **3%**

Other **3%**

OpenLogic JDK **2.3%**

What Developer IDE Do You Use Professionally?

18% VSCode

48% IntelliJ

24% Eclipse

IntelliJ **48%**

Eclipse **24%**

VSCode **18%**

Netbeans **6%**

Other **4%**

NETBEANS VISUAL STUDIO CODE ECLIPSE

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imgflip.com
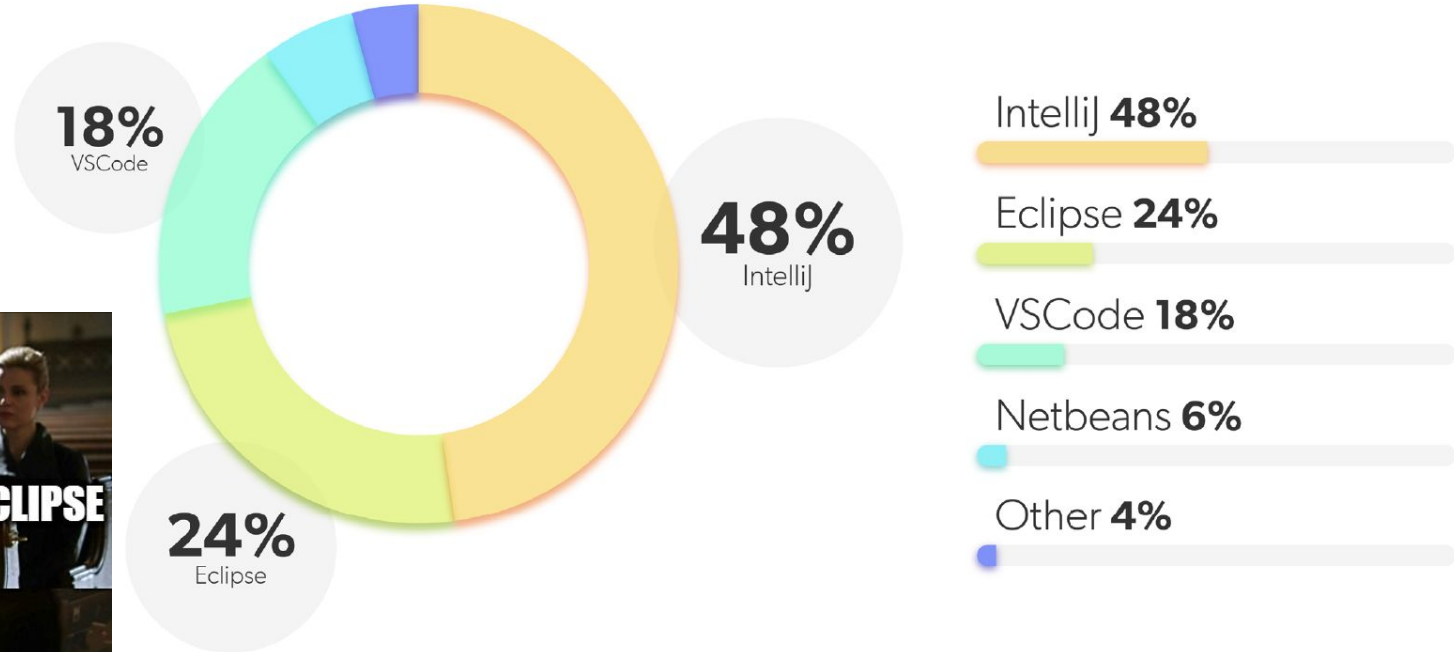
What Application Server Do You Use on Your Main Application?

48%
Tomcat

13%
Jetty

15%
JBoss/
Wildfly

Tomcat **48%**

JBoss/Wildfly **15%**

Jetty **13%**

Other **8%**

WebLogic **7%**

WebSphere **5%**

GlassFish **4%**

If You Use a Platform, Who is Your PaaS Provider?

31%
AWS

11%
Google Cloud
Platform

14%
Microsoft
Azure

24%
Don't use
PaaS providers

AWS **31%**

We don't use PaaS providers **24%**

Microsoft Azure **14%**

Google Cloud Platform **11%**

Other **8%**

Oracle Cloud Platform **3%**

IBM Cloud **3%**

SAP Cloud Platform **2%**

Pivotal Cloud Foundry **2%**

VMWare Tanzu **2%**
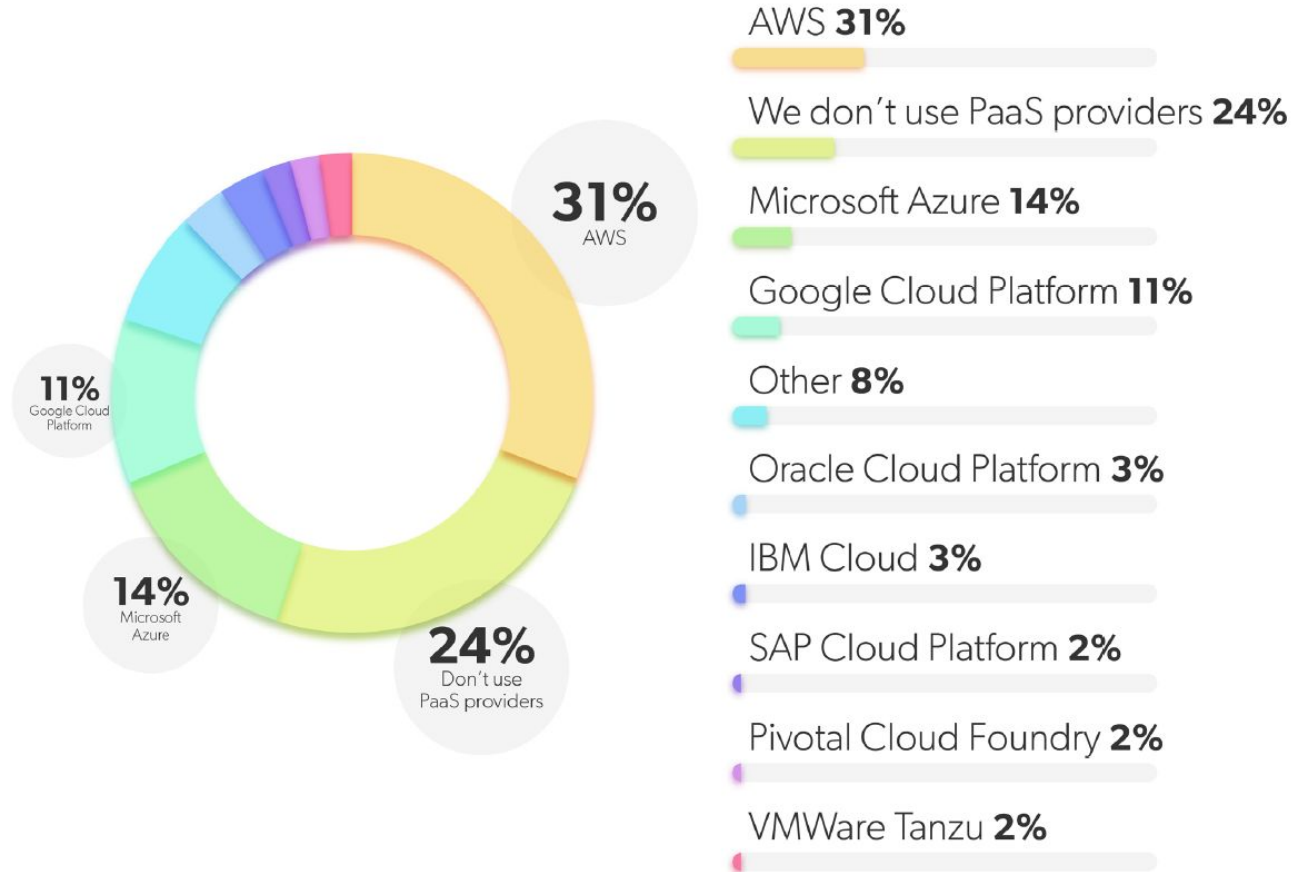
What Build Tool Do You Use in Your Main Application?

68% Maven

23% Gradle

6% Ant

3% Other

Maven **68%**

Gradle **23%**

Ant **6%**

Other **3%**
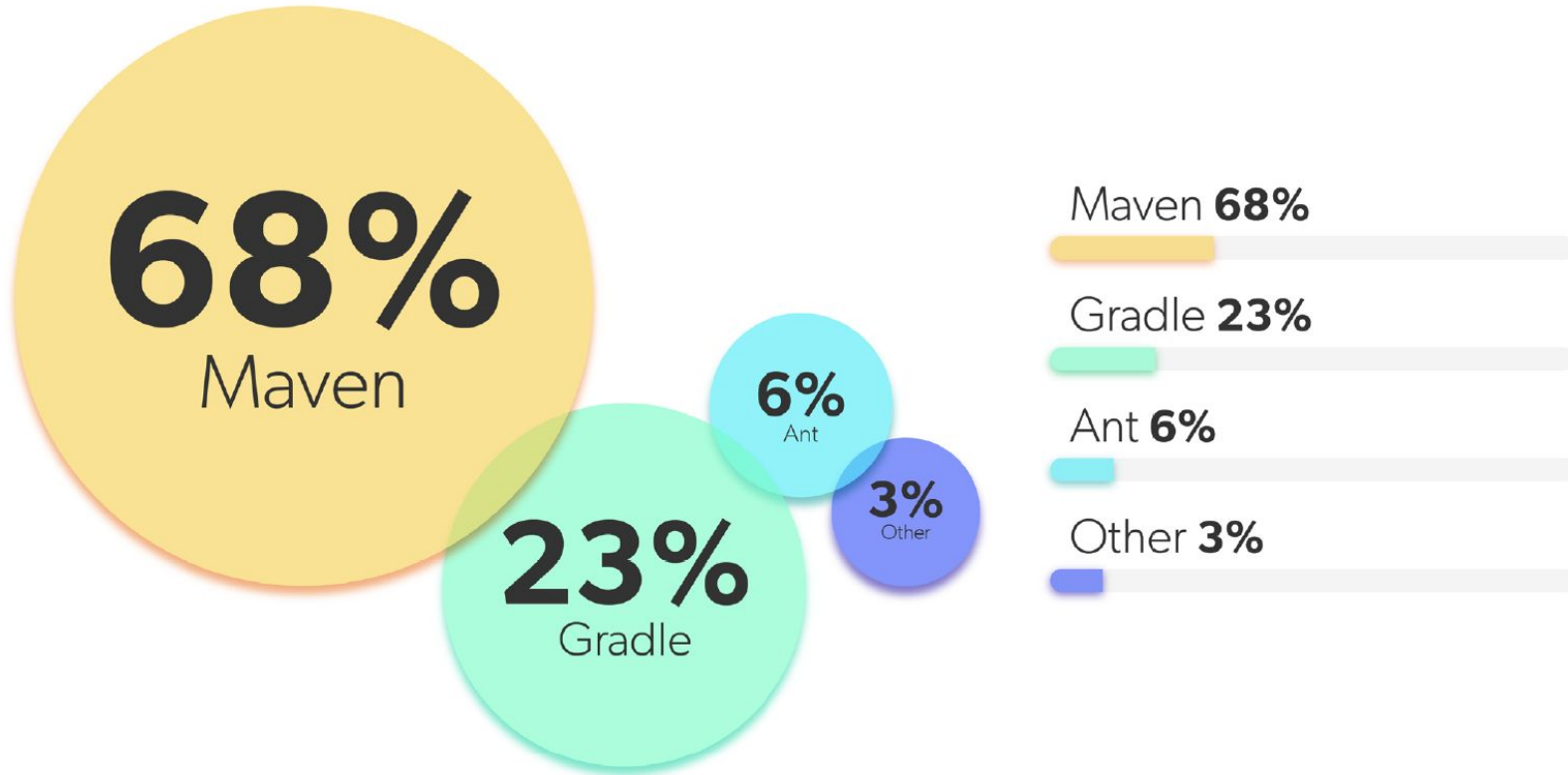
Which CI/CD Technologies Are You Using?

10% None of the above

46% Jenkins

13% Other

16% GitHub Actions

Jenkins **46%**

GitHub Actions **16%**

Other **13%**

Bamboo **7%**

TeamCity **4%**

Circle CI **3%**

Travis CI **1%**

None of the above **10%**
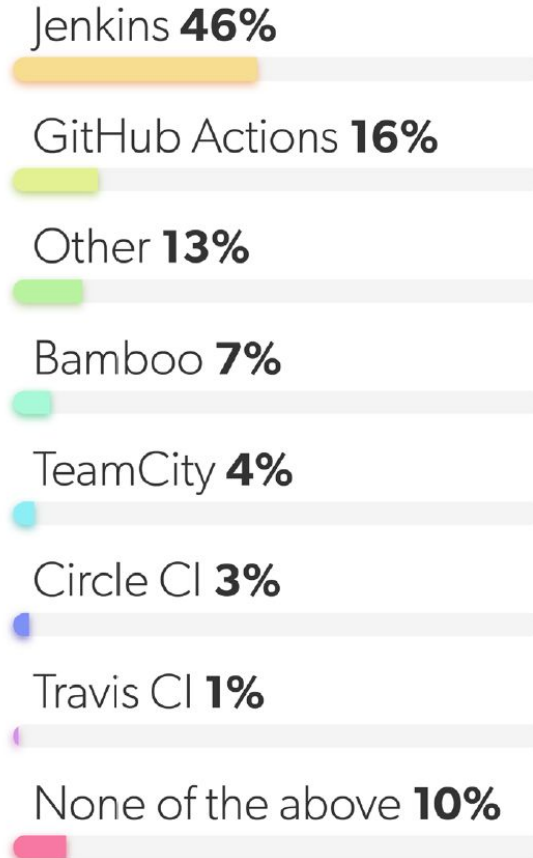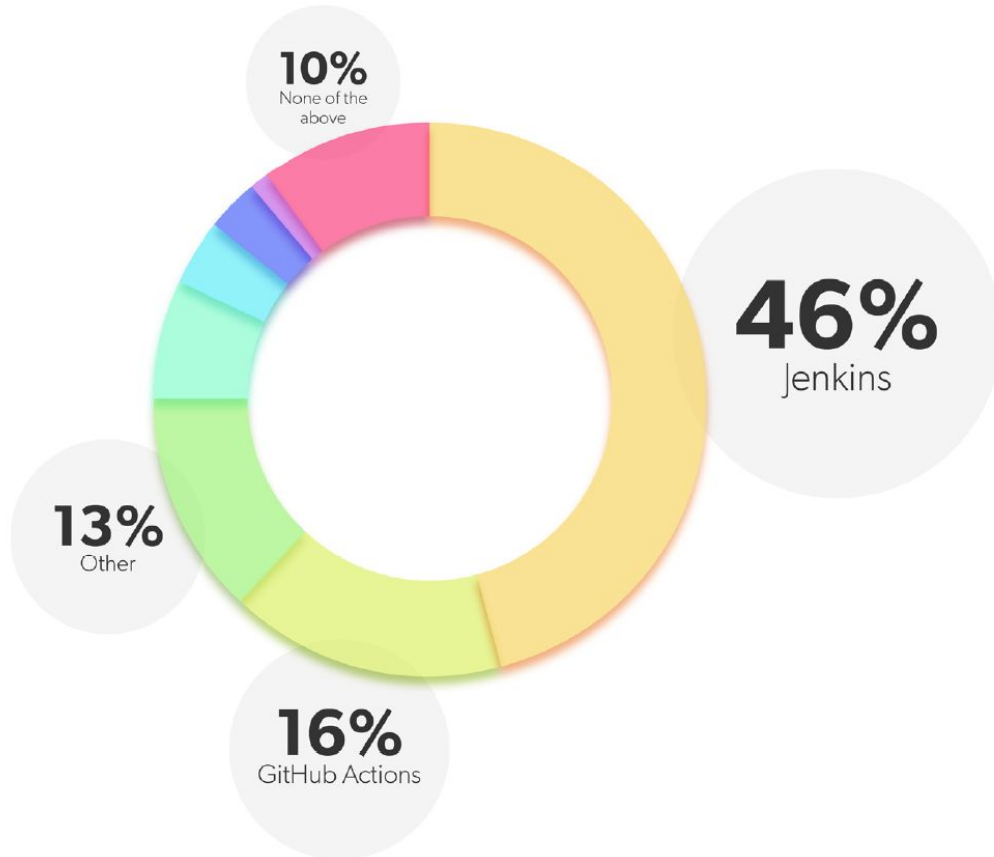
Which Virtual Machine Platform Do You Use?

41% Docker

16% Vmware

26% Kubernetes

Docker **41%**

Kubernetes **26%**

Vmware **16%**

N/A **10%**

Other **4%**

Vagrant **3%**
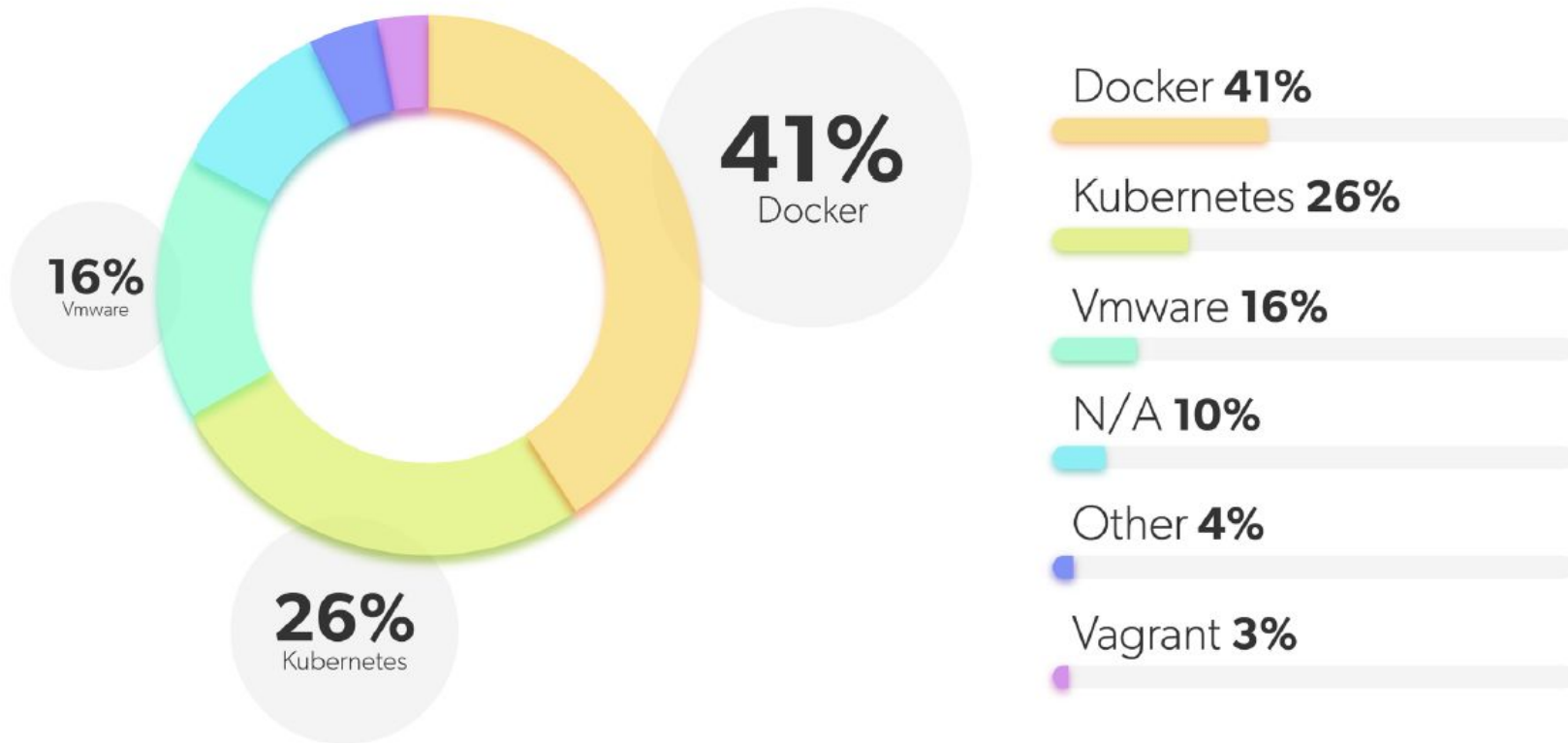
Thank you for your listening!

**"One who never asks
Either knows everything or nothing"**
Malcolm S. Forbes