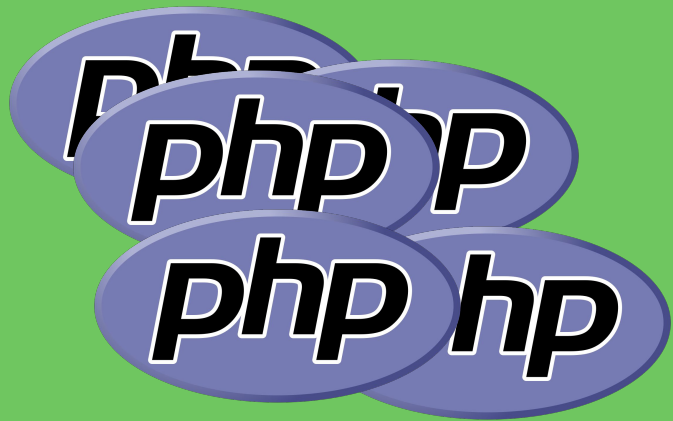




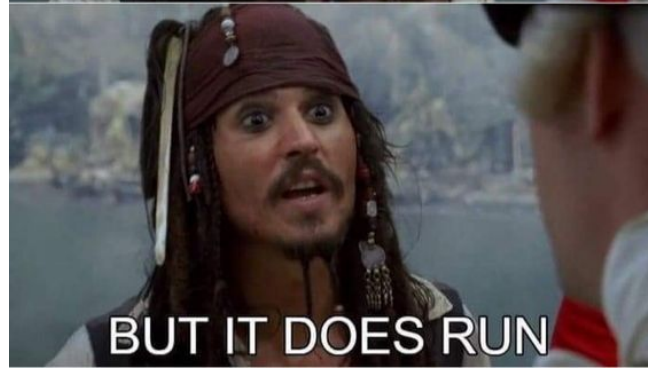
**Développer en JAVA Cloud Native en 2024,
Unpopular Opinion ?**

ACME Corp

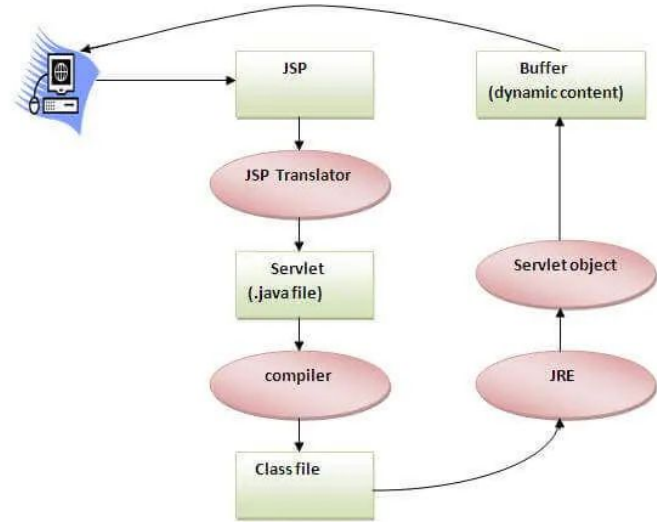
**Best of pets
since 90**



Show me the code



DEPLOYMENT OLDSCHOOL



Tomcat Web Application Manager

Message: OR

Manager			
List Applications	HTML Manager Help	Manager Help	Server Status

Applications					
Path	Version	Display Name	Running	Sessions	Commands
/	None specified	Welcome to Tomcat	true	0	Start <input type="button" value="Stop"/> <input type="button" value="Reload"/> <input type="button" value="Undeploy"/> <input type="button" value="Expire sessions"/> with idle > 30 minutes
/docs	None specified	Tomcat Documentation	true	0	Start <input type="button" value="Stop"/> <input type="button" value="Reload"/> <input type="button" value="Undeploy"/> <input type="button" value="Expire sessions"/> with idle > 30

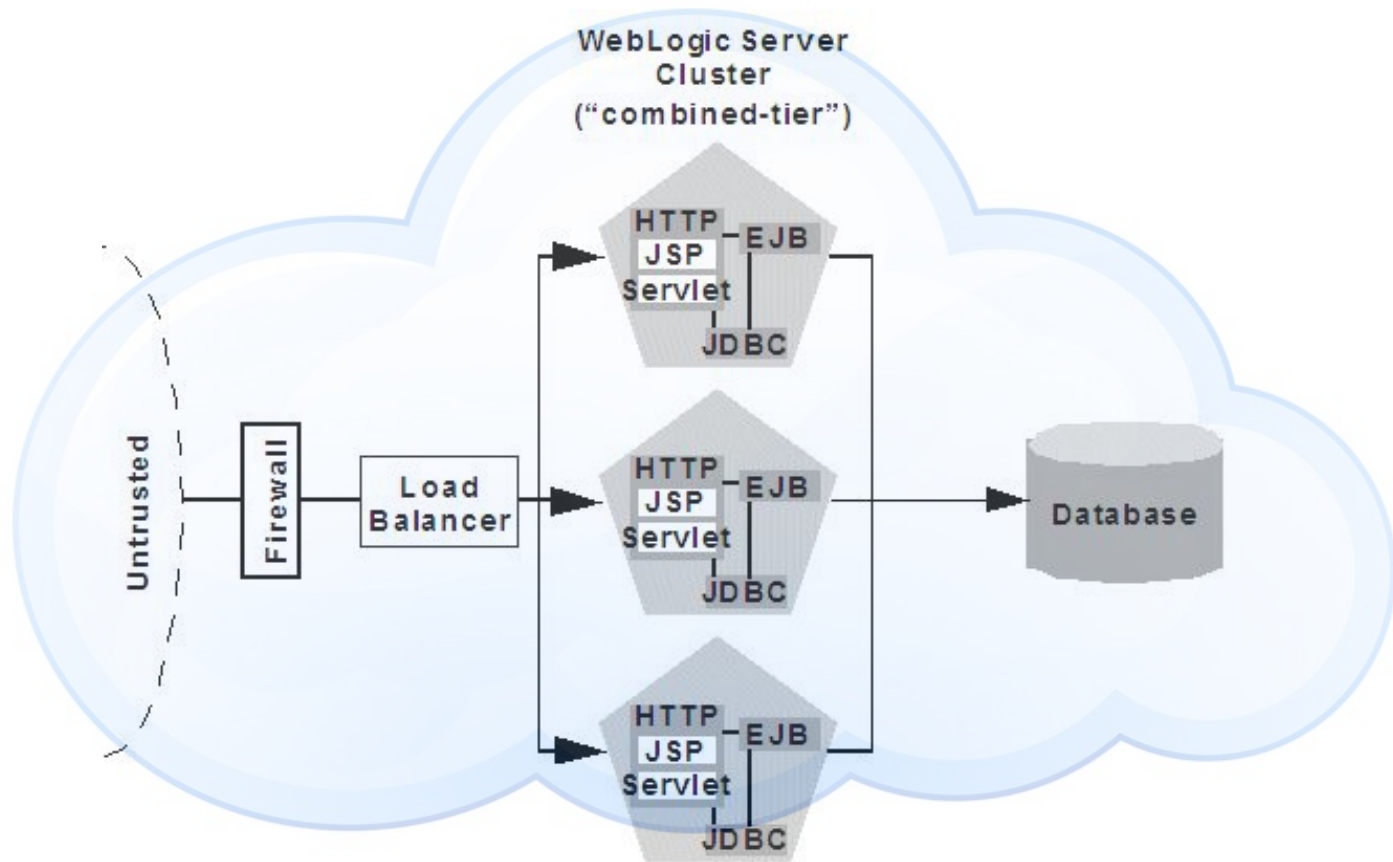
42 hours later



À cause de lui...



Rémi à toi de jouer



Que faire...



Tout cramer...

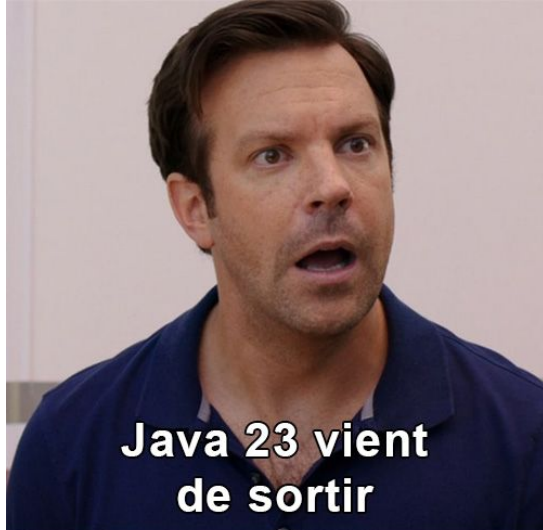
TOUT CRAMER

POUR REPARTIR SUR DES BASES SAINES



Refaire du Java ?

Refaire du Java ?



Java 23 vient
de sortir



23 ? On utilise
la version 17

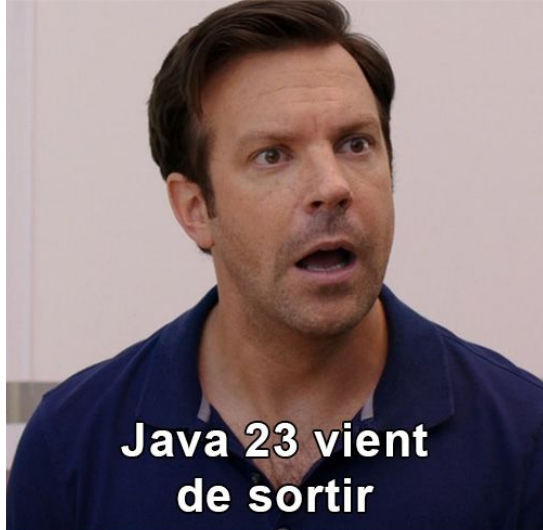


17 ? On est toujours
sur du 11 nous



Il y a eu d'autres
versions après la 8 ?

Refaire du Java ?



Java 23 vient
de sortir



23 ? On utilise
la version 17



17 ? On est toujours
sur du 11 nous



Il y a eu d'autres
versions après la 8 ?

**On démarre sur le
poste de dev...**



Java Development Kits

Java Development Kits

Quelle version en 2024 ?

- JDK 23 (**21 LTS**, Release date 09/2024) <https://endoflife.date/oracle-jdk>
- Choix du JDK : <https://whichjdk.com/>

Oracle JDK

JAVA-DISTRIBUTION LANG ORACLE

Last updated on 20 September 2024

Oracle Java SE Development Kit (JDK) is a commercial, closed-source, TCK-tested and certified build of OpenJDK. Builds of Oracle JDK are available for multiple platforms, including Windows, macOS and Linux.

Release	Released	Premier Support	Extended Support	Latest
23	1 week ago (17 Sep 2024)	Ends in 5 months and 3 weeks (18 Mar 2025)	Unavailable	23.0.0 (17 Sep 2024)
22	6 months ago (19 Mar 2024)	Ended 1 week ago (17 Sep 2024)	Unavailable	22.0.2 (16 Jul 2024)
21 (LTS)	1 year ago (19 Sep 2023)	Ends in 4 years (30 Sep 2028)	Ends in 7 years (30 Sep 2031)	21.0.4 (16 Jul 2024)

Which Version of JDK Should I Use?

English 한국어



Java 8u121

```
→ docker run -m 100MB openjdk:8u121 java -XshowSettings:vm -version
```

```
VM settings:
```

```
Max. Heap Size (Estimated): 1.73G
```

```
Ergonomics Machine Class: server
```

```
Using VM: OpenJDK 64-Bit Server VM
```

```
openjdk version "1.8.0_121"
```

```
OpenJDK Runtime Environment (build 1.8.0_121-8u121-b13-1~bpo8+1-b13)
```

```
OpenJDK 64-Bit Server VM (build 25.121-b13, mixed mode)
```


Java 8u121

```
→ docker run -m 100MB openjdk:8u121 java -XshowSettings:vm -version
```

```
VM settings:
```

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```

```
OpenJDK 64-Bit Server VM (build 25.121-b13, mixed mode)
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```
Ergonomics Machine Class: server
```

```
Using VM: OpenJDK 64-Bit Server VM
```

```
openjdk version "1.8.0_121"
```

```
OpenJDK Runtime Environment (build 1.8.0_121-8u121-b13-1~bpo8+1-b13)
```

```
OpenJDK 64-Bit Server VM (build 25.121-b13, mixed mode)
```

Java 8u131

```
→ docker run -m 100MB openjdk:8u131 java \  
-XshowSettings:vm -version
```

VM settings:

```
Max. Heap Size (Estimated): 1.73G  
Ergonomics Machine Class: server  
Using VM: OpenJDK 64-Bit Server VM
```

```
openjdk version "1.8.0_131"  
OpenJDK Runtime Environment (build 1.8.0_131-8u131-b11-2-b11)  
OpenJDK 64-Bit Server VM (build 25.131-b11, mixed mode)
```

Java 8u131

```
→ docker run -m 100MB openjdk:8u131 java \  
-XX:+UnlockExperimentalVMOptions \  
-XX:+UseCGroupMemoryLimitForHeap \  
-XshowSettings:vm -version
```

VM settings:

Max. Heap Size (Estimated): 44.50M

Ergonomics Machine Class: server

Using VM: OpenJDK 64-Bit Server VM

openjdk version "1.8.0_131"

OpenJDK Runtime Environment (build 1.8.0_131-8u131-b11-2-b11)

OpenJDK 64-Bit Server VM (build 25.131-b11, mixed mode)

Java 8u372 : cgroup v2

```
[root@357fec96b37e /]# /opt/jdk8u372/bin/java -XshowSettings:system -version
```

```
Operating System Metrics:
```

```
  Provider: cgroupv2
```

```
  Effective CPU Count: 3
```

```
  CPU Period: 100000us
```

```
  CPU Quota: 300000us
```

```
  CPU Shares: -1
```

```
  List of Processors: N/A
```

```
  List of Effective Processors, 4 total:
```

```
  0 1 2 3
```

```
  List of Memory Nodes: N/A
```

```
  List of Available Memory Nodes, 1 total:
```

```
  0
```

```
  Memory Limit: 500.00M
```

```
  Memory Soft Limit: 0.00K
```

```
  Memory & Swap Limit: 500.00M
```

```
openjdk version "1.8.0_372-beta"
```

```
OpenJDK Runtime Environment (Temurin)(build 1.8.0_372-beta-202303201451-b05)
```

```
OpenJDK 64-Bit Server VM (Temurin)(build 25.372-b05, mixed mode)
```

Java 8u372 : cgroup v2

```
[root@357fec96b37e /]# /opt/jdk8u372/bin/java -XX:+UnlockDiagnosticVMOptions -
XX:+PrintContainerInfo -version
OSContainer::init: Initializing Container Support
Detected cgroups v2 unified hierarchy
Path to /cpu.max is /sys/fs/cgroup//cpu.max
Raw value for CPU quota is: 300000
CPU Quota is: 300000
Path to /cpu.max is /sys/fs/cgroup//cpu.max
CPU Period is: 100000
Path to /cpu.weight is /sys/fs/cgroup//cpu.weight
Raw value for CPU Shares is: 100
CPU Shares is: -1
CPU Quota count based on quota/period: 3
OSContainer::active_processor_count: 3
CgroupSubsystem::active_processor_count (cached): 3
total physical memory: 5033832448
Path to /memory.max is /sys/fs/cgroup//memory.max
Raw value for memory limit is: 524288000
Memory Limit is: 524288000
total container memory: 524288000
total container memory: 524288000
CgroupSubsystem::active_processor_count (cached): 3
Path to /cpu.max is /sys/fs/cgroup//cpu.max
Raw value for CPU quota is: 300000
CPU Quota is: 300000
Path to /cpu.max is /sys/fs/cgroup//cpu.max
CPU Period is: 100000
```

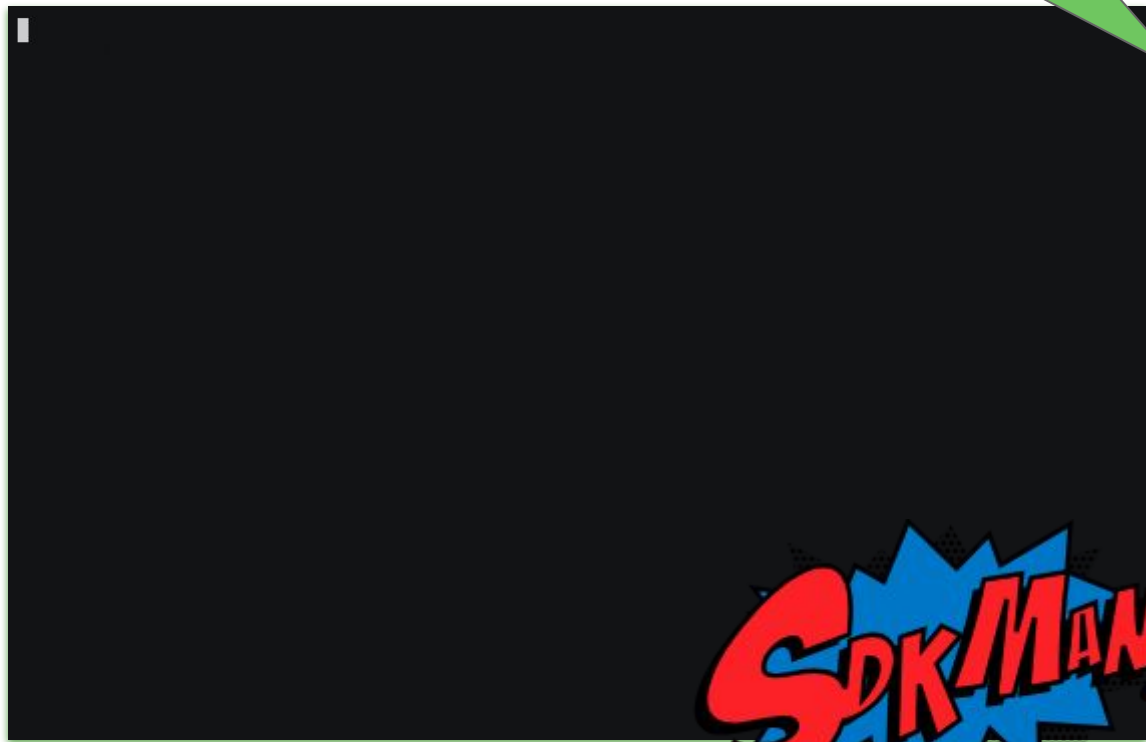
Multiple Runtime Version Manager

Multiple Runtime Version Manager



Comment j'installe ?

- ASDF
- **SDKMan**



Les éditeurs

Les éditeurs

Quel éditeur ?

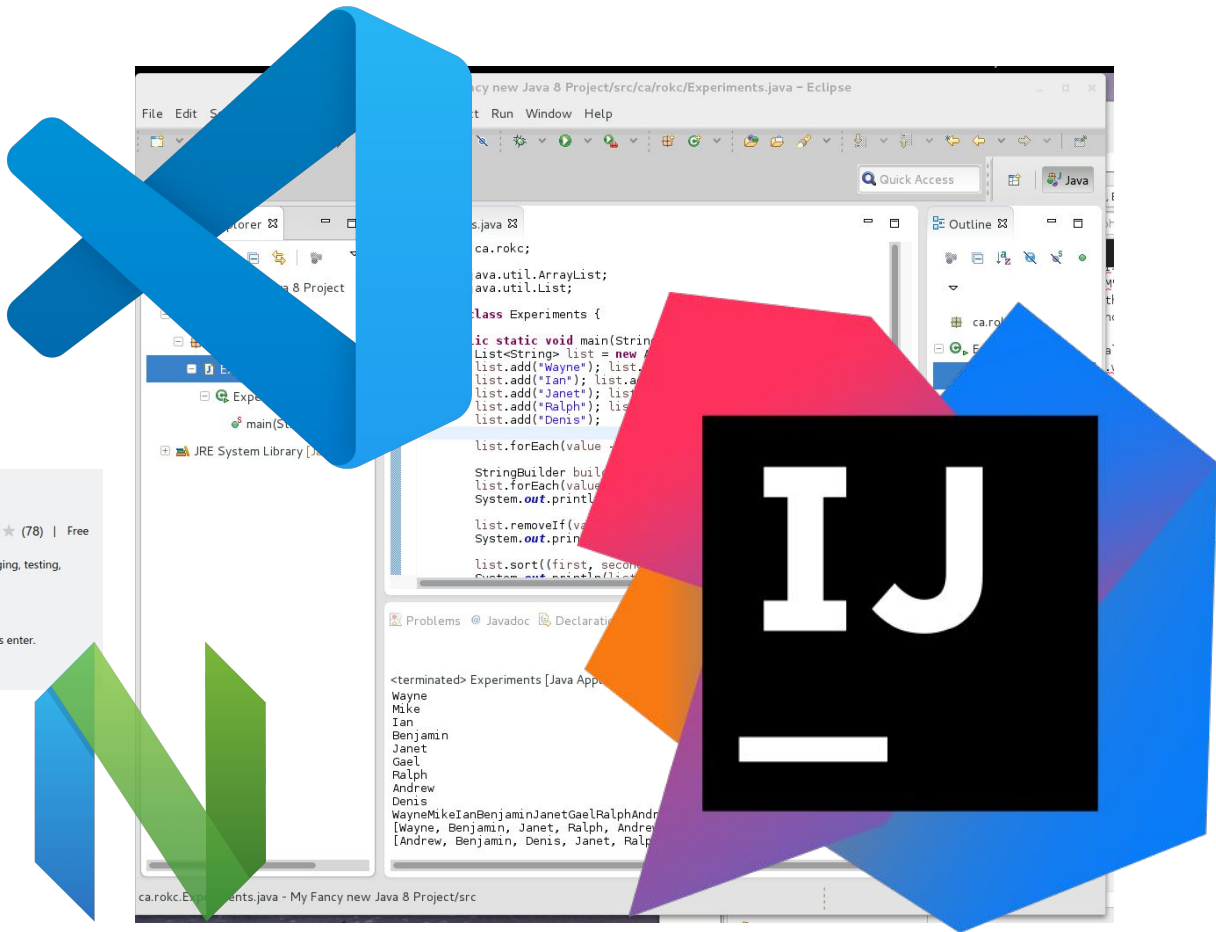
- Visual Studio Code
- IntelliJ IDEA
- NeoVIM



 **Extension Pack for Java**
Microsoft  microsoft.com | 30,172,371 installs | ★★★★★ (78) | Free

Popular extensions for Java development that provides Java InteliSense, debugging, testing, Maven/Gradle support, project management and more

Installation
Launch VS Code Quick Open (Ctrl+P), paste the following command, and press enter.
 [Copy](#) [More Info](#)



Écosystème & Dépendances

Écosystème & Dépendances



Arnaud Héritier @aheritier · 11 sept. ...

I love the idea.

Then you just have to use a powerful language with decades of tools like XML and you'll got something like [@ASF Maven Project](#)



De blog.gradle.org



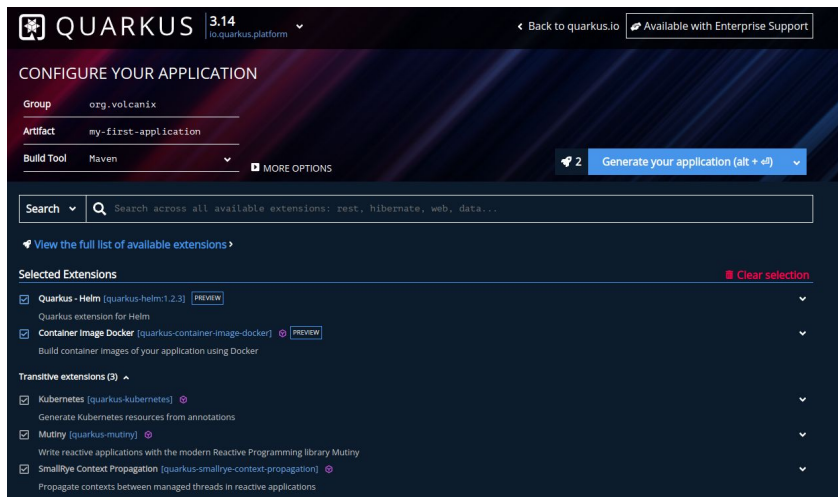
Frameworks & Starters

Frameworks & Starters

<https://start.spring.io/>

<https://code.quarkus.io/>

<https://start.vertx.io/>



The screenshot shows the Quarkus 3.14 web interface. At the top, it says "QUARKUS 3.14" and "io.quarkus.platform". Below that, there's a "CONFIGURE YOUR APPLICATION" section. The "Group" is set to "org.volcanix" and the "Artifact" is "my-first-application". The "Build Tool" is set to "Maven". There's a "Generate your application (alt + #)" button. Below that, there's a search bar with the text "Search across all available extensions: rest, hibernate, web, data...". There are also links to "View the full list of available extensions" and "Clear selection". The "Selected Extensions" section lists "Quarkus - Helm" and "Container Image Docker". The "Transitive extensions (3)" section lists "Kubernetes", "Mutiny", and "Smallrye Context Propagation".

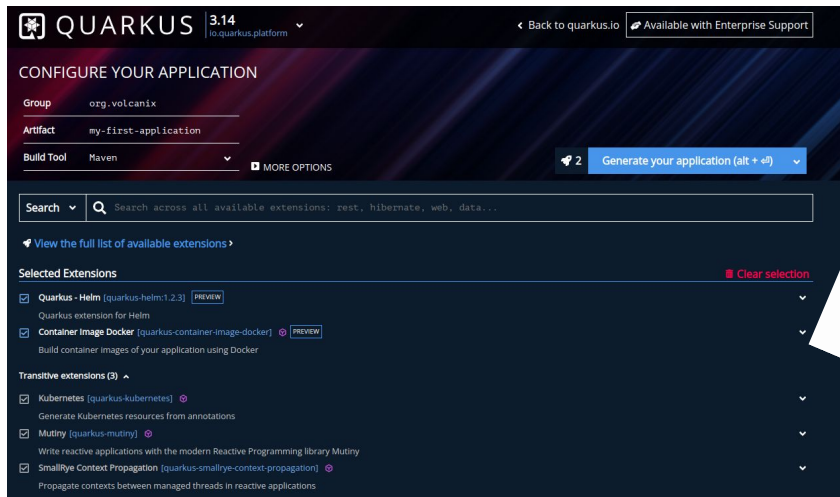


Frameworks & Starters

<https://start.spring.io/>

<https://code.quarkus.io/>

<https://start.vertx.io/>



Quarkus ?



Developer JOY

Live Coding

Improve and expedite the inner loop development process with live coding where code changes are automatically reflected in your running application. code -> refresh browser -> repeat

[Read the Dev Mode guide](#)

Opinionated

Quarkus focuses on the simplest and most useful way to use a given feature, trimming it to its most useful essence. This includes upfront analysis on how to best use a feature and guiding you in what we think is the best way to do things.

Dev Services

Automatic provisioning and application wiring of supporting services such as databases, identity servers, and more.

[Read the Dev Services guide](#)

Unified Config

Gone are the days of a thousand configuration files and formats. A single configuration file is all it takes for Quarkus applications to configure every single extension.

Dev UI

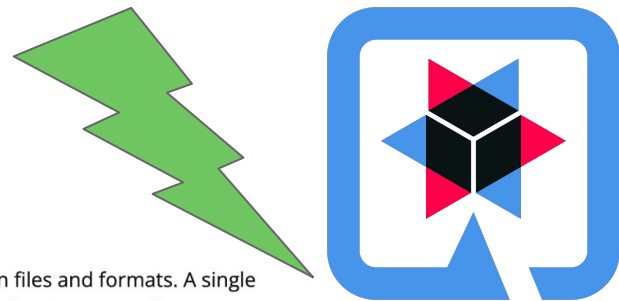
Visualize and configure extensions as well as access to application logs and testing components

[Read the Dev UI guide](#)

Continuous Testing

Get instant feedback on code changes as tests run in the background on impacted code.

[Read the Continuous Testing guide](#)



Developer JOY

Live Coding

Improve and expedite the inner loop development process with live coding where code changes are automatically reflected in your running application. code -> refresh browser -> repeat

[Read the Dev Mode guide](#)

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Unified Config

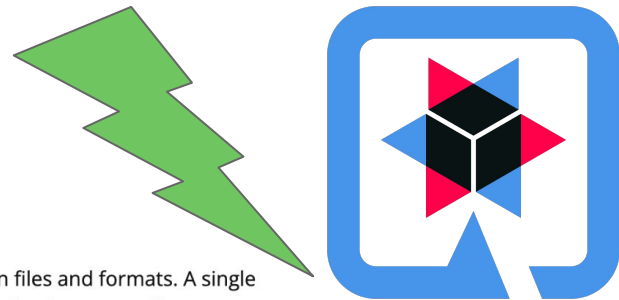
Gone are the days of a thousand configuration files and formats. A single configuration file is all it takes for Quarkus applications to configure every single extension.

Dev UI

Visualize and test components. [Read the Dev UI guide](#)

Continuous

Get instant feedback on your code changes. [Read the Continuous DevOps guide](#)



On déploie ?



Création d'appli

1. Un JAR

```
./mvnw clean package -DskipTests
```

2. Création d'un conteneur Docker

```
./mvnw clean package -Dquarkus.container-image.build=true -DskipTests
```

3. Génération chart Helm

```
./mvnw clean package -Dquarkus.helm.enabled=true -DskipTests
```

CI/CD

```
./mvnw -B -ntp clean package
```

```
Build Container image 57s  
1 ▶ Run cd 02-quarkus  
17 [INFO] Scanning for projects...  
18 [INFO]  
19 [INFO] -----< org.acme:qute-quickstart >-----  
20 [INFO] Building qute-quickstart 1.0.1-SNAPSHOT  
21 [INFO] from pom.xml  
22 [INFO] -----[ jar ]-----  
23 [INFO]  
24 [INFO] --- clean:3.2.0:clean (default-clean) @ qute-quickstart ---  
25 [INFO]  
26 [INFO] --- resources:3.3.1:resources (default-resources) @ qute-quickstart ---  
27 [INFO] Copying 3 resources from src/main/resources to target/classes  
28 [INFO]  
29 [INFO] --- compiler:3.11.0:compile (default-compile) @ qute-quickstart ---  
30 [INFO] Changes detected - recompiling the module! :source  
31 [INFO] Compiling 6 source files with javac [debug target 21] to target/classes  
32 [INFO]  
33 [INFO] --- resources:3.3.1:testResources (default-testResources) @ qute-quickstart ---  
34 [INFO] skip non existing resourceDirectory /home/runner/work/demo-volcamp/demo-volcamp/02-quarkus/src/test/resources  
35 [INFO]  
36 [INFO] --- compiler:3.11.0:testCompile (default-testCompile) @ qute-quickstart ---  
37 [INFO] Changes detected - recompiling the module! :dependency  
38 [INFO] Compiling 4 source files with javac [debug target 21] to target/test-classes  
39 [INFO]  
40 [INFO] --- surefire:3.1.2:test (default-test) @ qute-quickstart ---  
41 [INFO] Tests are skipped.  
42 [INFO]  
43 [INFO] --- jar:3.4.1:jar (default-jar) @ qute-quickstart ---  
44 [INFO] Building jar: /home/runner/work/demo-volcamp/demo-volcamp/02-quarkus/target/qute-quickstart-1.0.1-SNAPSHOT.jar
```

CI/CD

```
./mvnw -B -ntp clean package
```



GraaVM 🍏 @graalvm · 5 min

You can now use GraaVM with 'setup-java'! 🎉

[github.com/actions/setup-...](https://github.com/actions/setup-java)

#GraaVM #Java23

```
steps:
  # ...
  - name: Set up GraaVM for JDK 23
    uses: actions/setup-java@v4
    with:
      distribution: 'graalvm'
      java-version: '23'
```

Build Container image

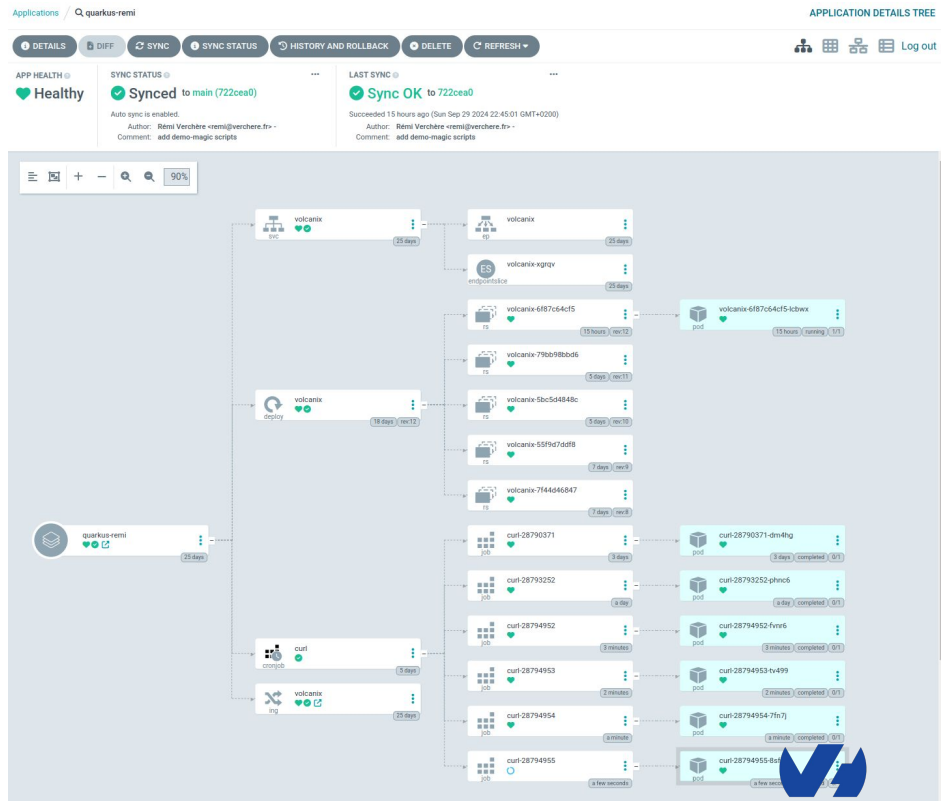
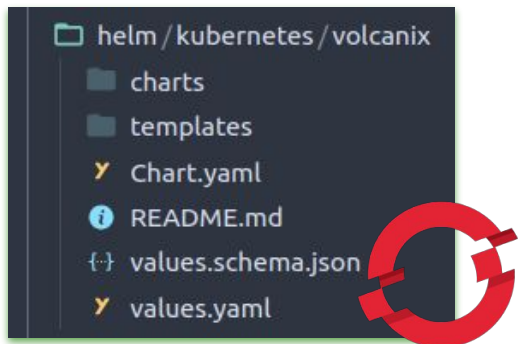
57s

```
1 ▶ Run cd 02-quarkus
17 [INFO] Scanning for projects...
18 [INFO]
19 [INFO] -----< org.acme:qute-quickstart >-----
20 [INFO] Building qute-quickstart 1.0.1-SNAPSHOT
21 [INFO] from pom.xml
22 [INFO] -----[ jar ]-----
23 [INFO]
24 [INFO] --- clean:3.2.0:clean (default-clean) @ qute-quickstart ---
25 [INFO]
26 [INFO] --- resources:3.3.1:resources (default-resources) @ qute-quickstart ---
27 [INFO] Copying 3 resources from src/main/resources to target/classes
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29 [INFO] --- compiler:3.11.0:compile (default-compile) @ qute-quickstart ---
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31 [INFO] Compiling 6 source files with javac [debug target 21] to target/classes
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33 [INFO] --- resources:3.3.1:testResources (default-testResources) @ qute-quickstart ---
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35 [INFO]
36 [INFO] --- compiler:3.11.0:testCompile (default-testCompile) @ qute-quickstart ---
37 [INFO] Changes detected - recompiling the module! :dependency
38 [INFO] Compiling 4 source files with javac [debug target 21] to target/test-classes
39 [INFO]
40 [INFO] --- surefire:3.1.2:test (default-test) @ qute-quickstart ---
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43 [INFO] --- jar:3.4.1:jar (default-jar) @ qute-quickstart ---
44 [INFO] Building jar: /home/runner/work/demo-volcamp/demo-volcamp/02-quarkus/target/qute-quickstart-1.0.1-SNAPSHOT.jar
```

Cloud Native ? Kubernetes !

- Création Conteneur
- Génération Chart Helm
- [GitOps](#)

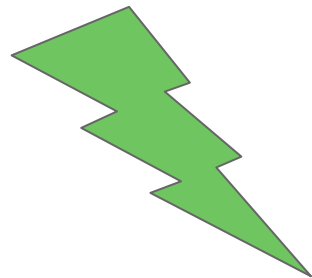
```
<dependency>
  <groupId>io.quarkiverse.helm</groupId>
  <artifactId>quarkus-helm</artifactId>
  <version>1.2.3</version>
</dependency>
<dependency>
  <groupId>io.quarkus</groupId>
  <artifactId>quarkus-container-image-docker</artifactId>
</dependency>
</dependency>
```



On observe ?



Health Checks



Spring Boot Actuators

- Liveness / Readiness Probes ?
- Même les Startups Probes ?

```
initContainers:  
- name: wait-for-bdd-{{ $serviceName }}  
  image: busybox:stable  
  imagePullPolicy: {{ .global.Values.pullPolicy }}  
  command: ["/bin/sh", "-c"]  
  args: ["for i in {1..5}; do sleep 1; if nc -vz -w 2 {{ .global.Values.namespace.name }}-  
  resources:  
    requests:  
      memory: 256Mi  
      cpu: 100m  
{{ if .global.Values.component.mailer.isDeployed }}  
- name: wait-for-mailer-{{ $serviceName }}  
  image: busybox:stable  
  imagePullPolicy: {{ .global.Values.pullPolicy }}  
  command: ["/bin/sh", "-c"]  
  args: ["for i in {1..5}; do sleep 1; if nc -vz -w 2 {{ .global.Values.namespace.name }}-  
  resources:  
    requests:  
      memory: 256Mi  
      cpu: 100m
```

Spring Actuator

- DataSourceHealthIndicator
- MongoHealthIndicator
- Neo4jHealthIndicator
- CassandraHealthIndicator
- RedisHealthIndicator
- CassandraHealthIndicator
- RabbitHealthIndicator
- CouchbaseHealthIndicator
- DiskSpaceHealthIndicator
- ElasticsearchHealthIndicator
- InfluxDbHealthIndicator
- JmsHealthIndicator
- MailHealthIndicator
- SolrHealthIndicator

Et même **flyway** !! <https://docs.spring.io/spring-boot/api/rest/actuator/flyway.html>

OpenTelemetry

- Y a une extension pour ça !

```
<dependency>  
  <groupId>io.quarkus</groupId>  
  <artifactId>quarkus-opentelemetry</artifactId>  
</dependency>  
<dependency>
```

```
quarkus.opentelemetry.exporter.otlp.endpoint=http://lgtm.opentelemetry:4317  
quarkus.opentelemetry.metrics.enabled=true  
#quarkus.opentelemetry.metrics.exporter=logging  
#quarkus.opentelemetry.metric.export.interval=10000ms  
quarkus.log.console.format=%d{HH:mm:ss} %-5p traceId=%X{traceId}, parentId=%X{parentId},
```

OpenTelemetry

The screenshot displays the OpenTelemetry Tempo web interface. The left panel shows a query editor with various filters and options. The right panel shows a trace visualization for a specific span.

Query Editor (Left Panel):

- Query type: Search, TraceQL, Service Graph
- Service Name: = Select value
- Span Name: = Select value
- Status: = Select value
- Duration: span > e.g. 100ms, 1.2s < e.g. 100ms, 1.2s
- Tags: span Select tag = Select value
- Options: Limit: 20, Spans Limit: 3, Table Format: Traces, Step: auto, Streaming: Disabled
- Buttons: + Add query, Query history, Query inspector

Trace Visualization (Right Panel):

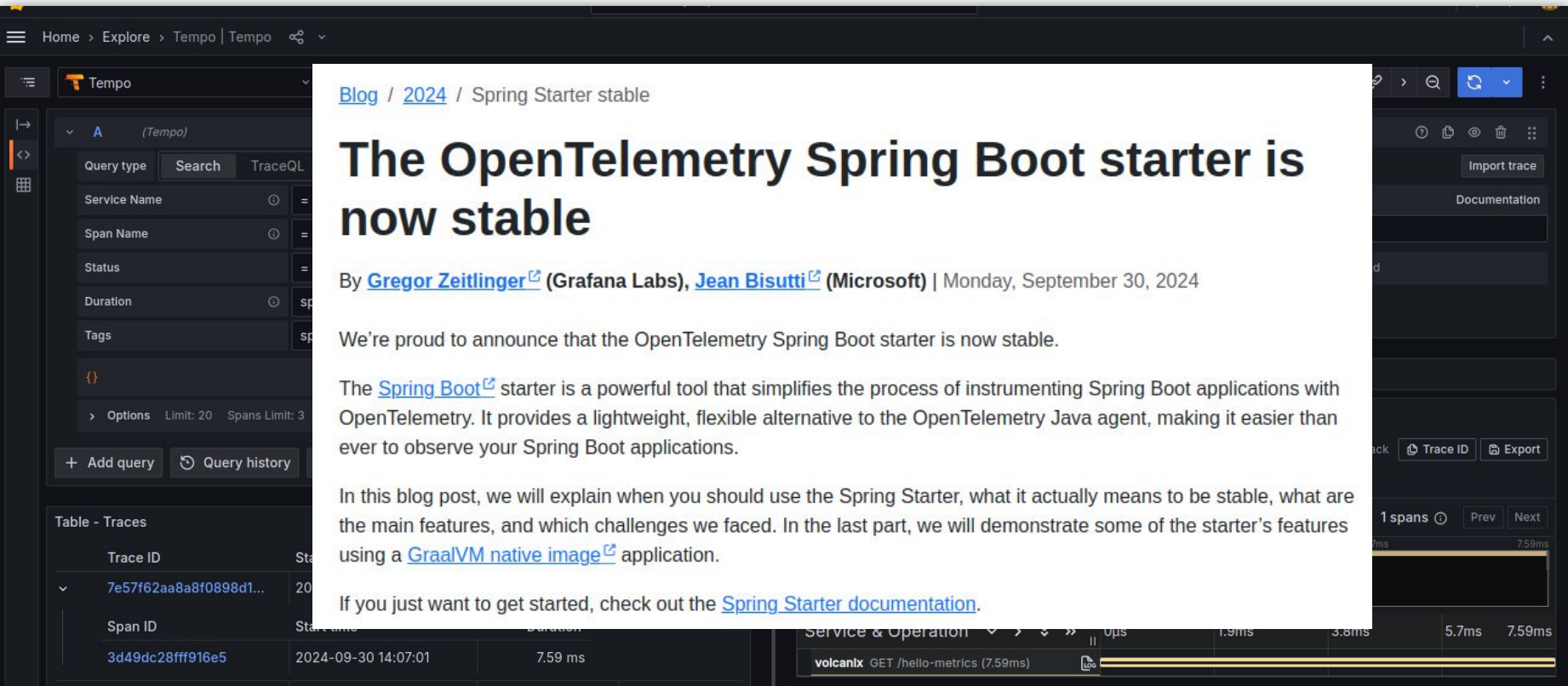
- Node graph: > Node graph
- Trace: volcanix: GET /hello-metrics 7.59ms
- Span ID: 7e57f62aa8a8f0898d1ca22304b1c102
- Span Filters: 1 spans
- Timeline: 0µs, 1.9ms, 3.8ms, 5.7ms, 7.59ms
- Service & Operation: volcanix GET /hello-metrics (7.59ms)

Table - Traces (Bottom Left):

Trace ID	Start time	Service	Name
7e57f62aa8a8f0898d1...	2024-09-30 14:07:01	volcanix	GET /hello-metrics

Span ID	Start time	Duration
3d49dc28ff916e5	2024-09-30 14:07:01	7.59 ms

OpenTelemetry



The image shows a screenshot of the OpenTelemetry Tempo web interface. The background is dark-themed and displays various UI elements: a top navigation bar with 'Home > Explore > Tempo | Tempo', a left sidebar with a search bar and filters for 'Query type', 'Service Name', 'Span Name', 'Status', 'Duration', and 'Tags', and a main area showing a table of traces. The table has columns for 'Trace ID', 'Span ID', 'Start time', 'Duration', and 'Service & Operation'. One trace is visible with ID '7e57f62aa8a8f0898d1...' and a span ID '3d49dc28ff916e5' with a duration of 7.59ms. The operation is 'volcanix GET /hello-metrics (7.59ms)'. A white blog post overlay is centered on the screen, containing the title 'The OpenTelemetry Spring Boot starter is now stable', the author 'By Gregor Zeitlinger (Grafana Labs), Jean Bisutti (Microsoft)', the date 'Monday, September 30, 2024', and three paragraphs of text. The text discusses the stability of the Spring Boot starter, its features, and provides a link to the documentation.

Home > Explore > Tempo | Tempo

Tempo

Blog / 2024 / Spring Starter stable

The OpenTelemetry Spring Boot starter is now stable

By [Gregor Zeitlinger](#) (Grafana Labs), [Jean Bisutti](#) (Microsoft) | Monday, September 30, 2024

We're proud to announce that the OpenTelemetry Spring Boot starter is now stable.

The [Spring Boot](#) starter is a powerful tool that simplifies the process of instrumenting Spring Boot applications with OpenTelemetry. It provides a lightweight, flexible alternative to the OpenTelemetry Java agent, making it easier than ever to observe your Spring Boot applications.

In this blog post, we will explain when you should use the Spring Starter, what it actually means to be stable, what are the main features, and which challenges we faced. In the last part, we will demonstrate some of the starter's features using a [GraalVM native image](#) application.

If you just want to get started, check out the [Spring Starter documentation](#).

Trace ID	Span ID	Start time	Duration	Service & Operation
7e57f62aa8a8f0898d1...	3d49dc28ff916e5	2024-09-30 14:07:01	7.59 ms	volcanix GET /hello-metrics (7.59ms)

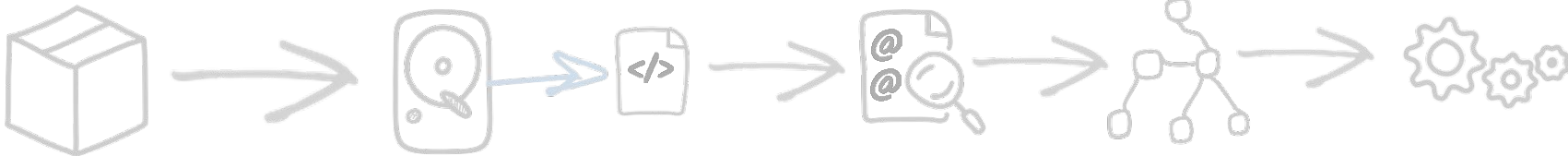
**Comment encore
accélérer ?**



Traditional Frameworks

Build Time

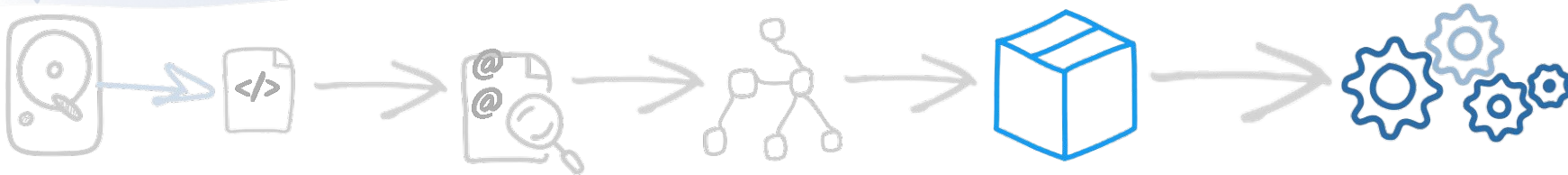
Runtime



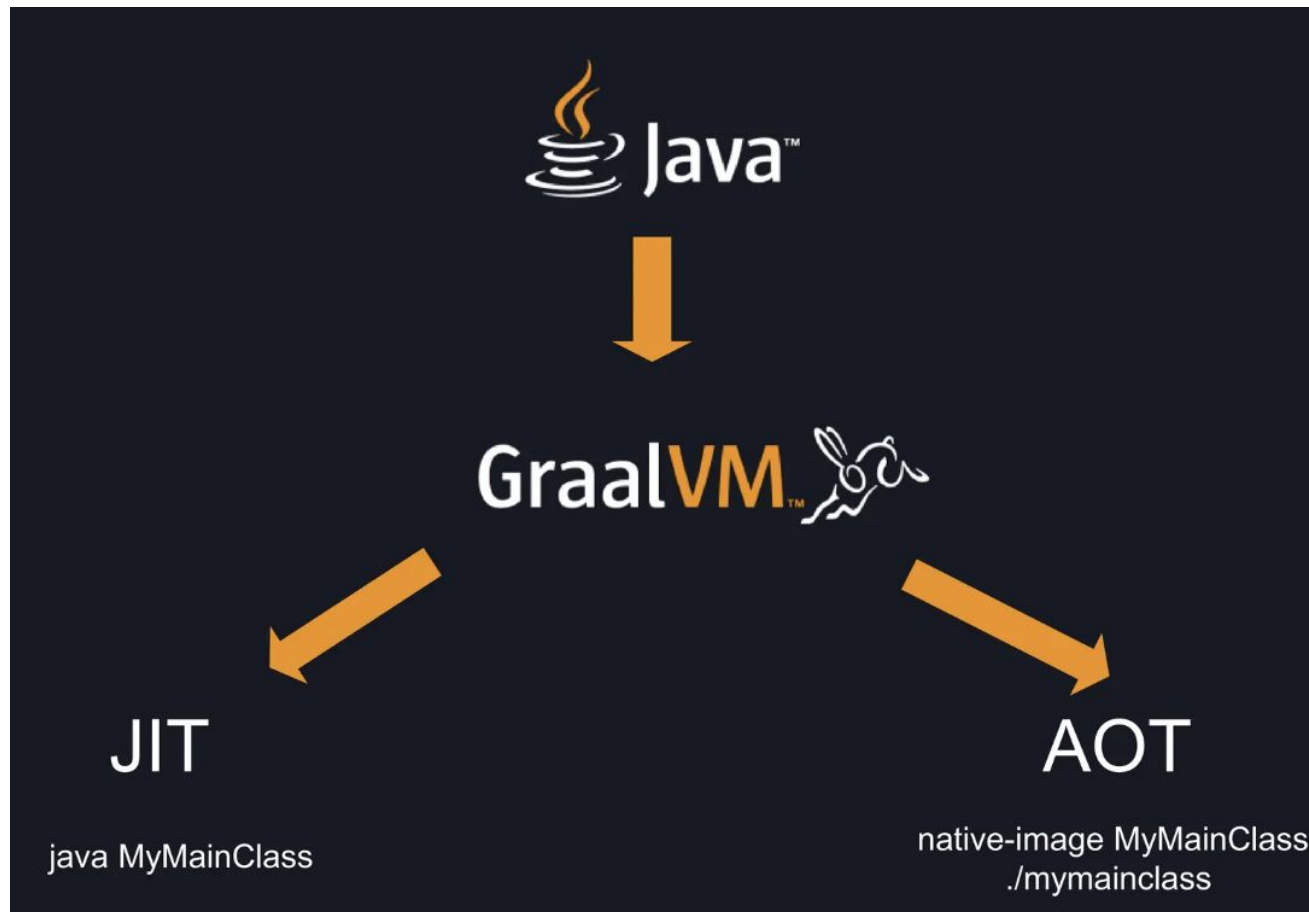
Quarkus

Build Time

Runtime



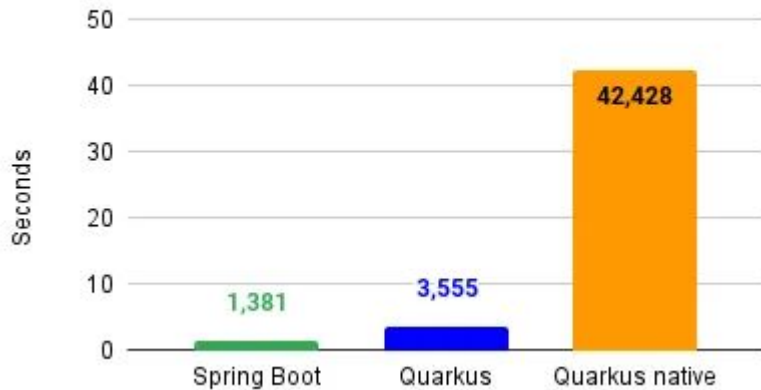
JIT vs AOT



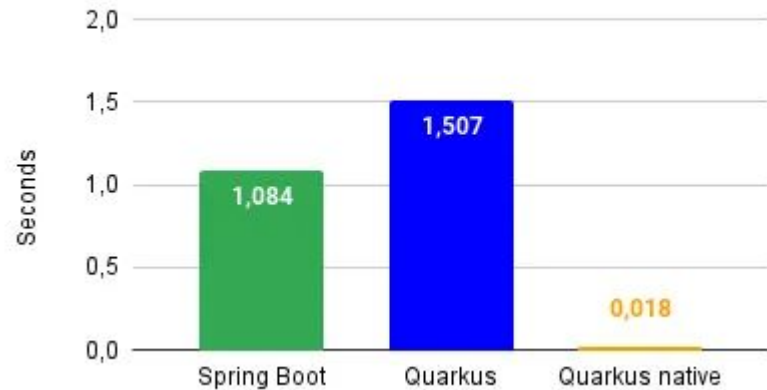
La quête du Graal

- **Truffle** : Un framework pour l'implémentation de langages de programmation en tant que interpréteurs d'arbres syntaxiques abstraits (AST). Il permet de créer des langages dynamiques qui peuvent être exécutés sur la JVM ou compilés en code natif.
- **Graal** : Un compilateur de code natif qui peut fonctionner en mode just-in-time (JIT) ou ahead-of-time (AOT). Il est capable d'optimiser et de compiler le code généré par Truffle en code natif performant.
- **SubstrateVM** : Un environnement d'exécution qui permet de compiler des applications Java en code natif ahead-of-time (AOT), éliminant ainsi la nécessité d'une JVM pour l'exécution. Il utilise Graal pour la compilation AOT et fournit les éléments nécessaires pour exécuter des applications Java sans JVM.

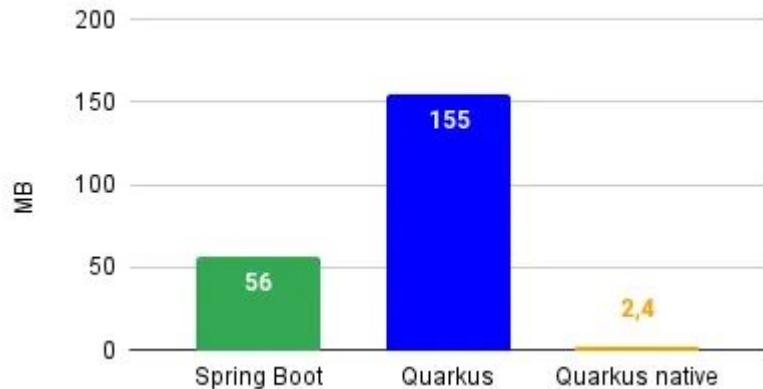
Build Time



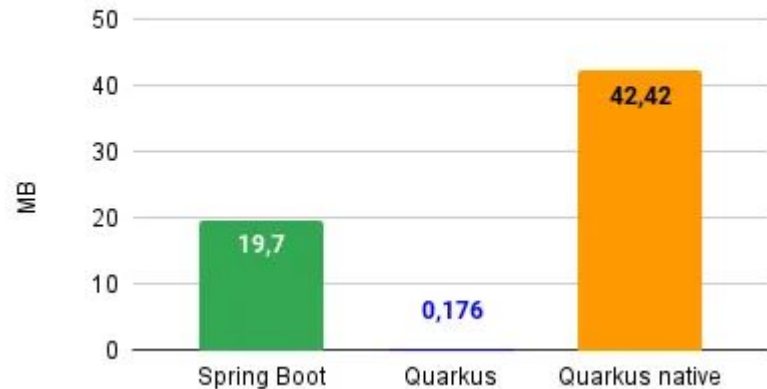
Startup Time



Memory Usage



Application Size



Pourquoi utiliser des binaires natives GraalVM ?

Pourquoi utiliser des binaires natives GraalVM ?



Super-fast
start



Peak
performance
from
first request



Smaller
container
images



Lower CPU
and memory
usage



Smaller
attack surface

Mais les limites ?

Mais les limites ?



Slow compile
time (secs to
mins)

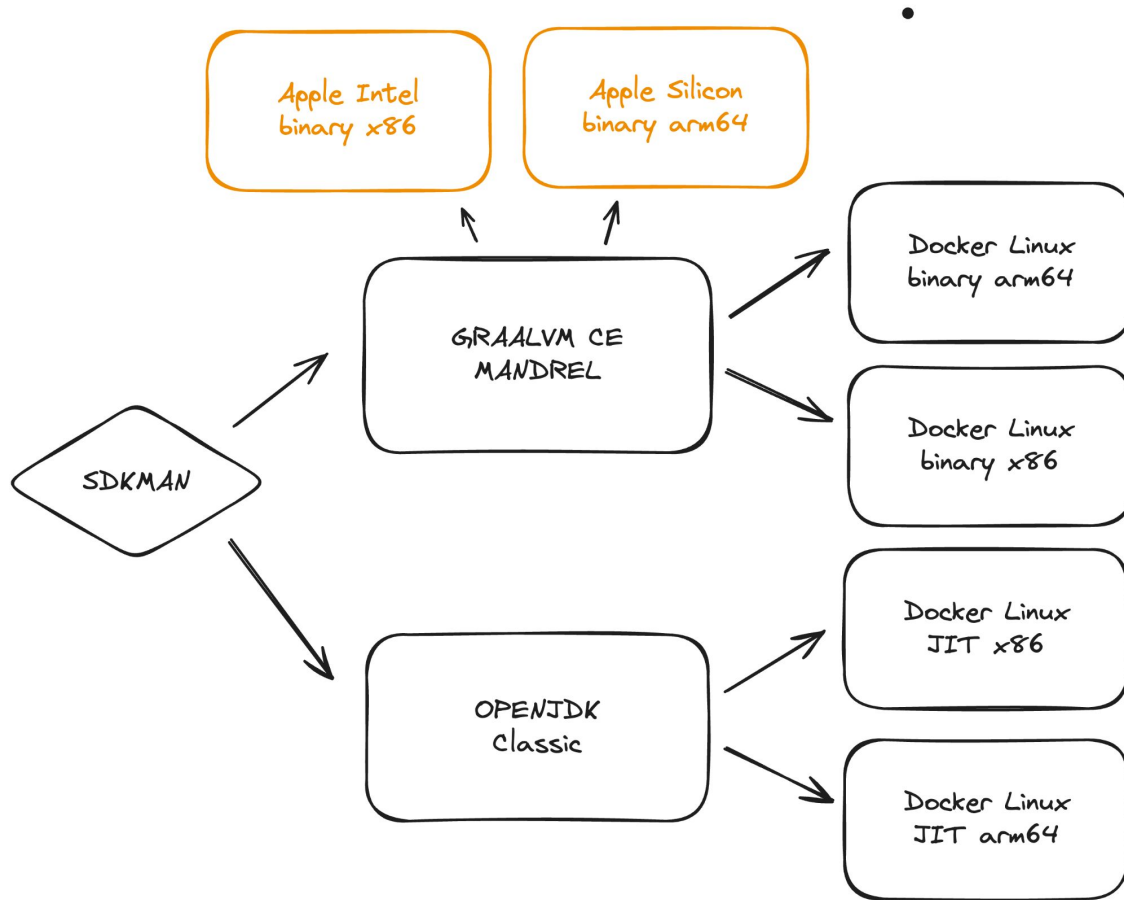


Closed-world
assumptions with
AOT



Additional
Shared Metadata
required
for some
3rd party libs

<https://github.com/zepouet/demo-volcamp/tree/main/.github/workflows>



Comparatif des meilleures cliniques

	Boot	MEMORY
Spring Boot 2.x Old Generation	5086ms	560 Mo
Spring Boot 3.x	1097ms	547 Mo
Quarkus JIT	1347ms	177 Mo

**Encore plus
plus vite !**



Harder, Better, Faster, Stronger

SPRING 

#springio24

The Future of Java Performance in Serverless: Native Java, CRaC and Project Leyden in the modern enterprise

Dan Dobrin
[@ddobrin](#)



Abdelfettah Sghiouar
[@boredabdel](#)

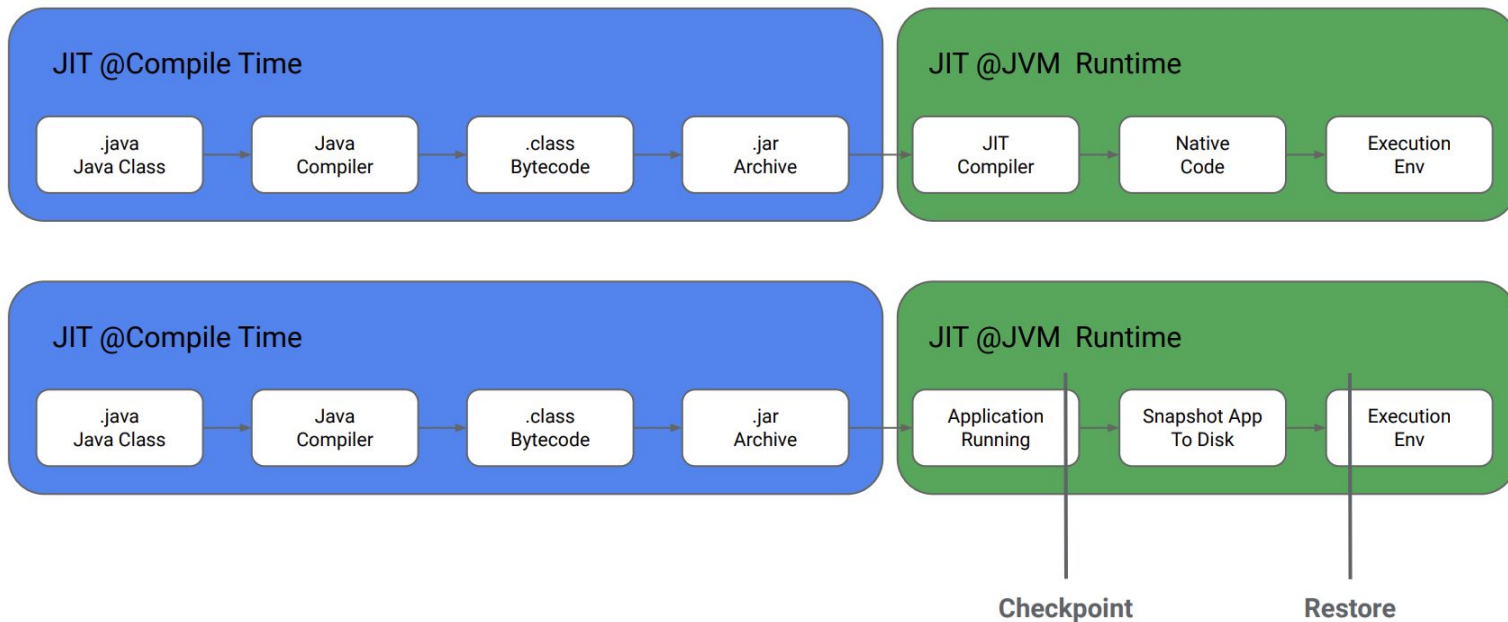


MAY · 30-31 · 2024

DEVELOPER CONFERENCE

SPRINGIO.NET

JIT vs CRaC



Kube Startup CPU Boost

CPU Boost

Google Optimization

Without

Startup



Serving



With

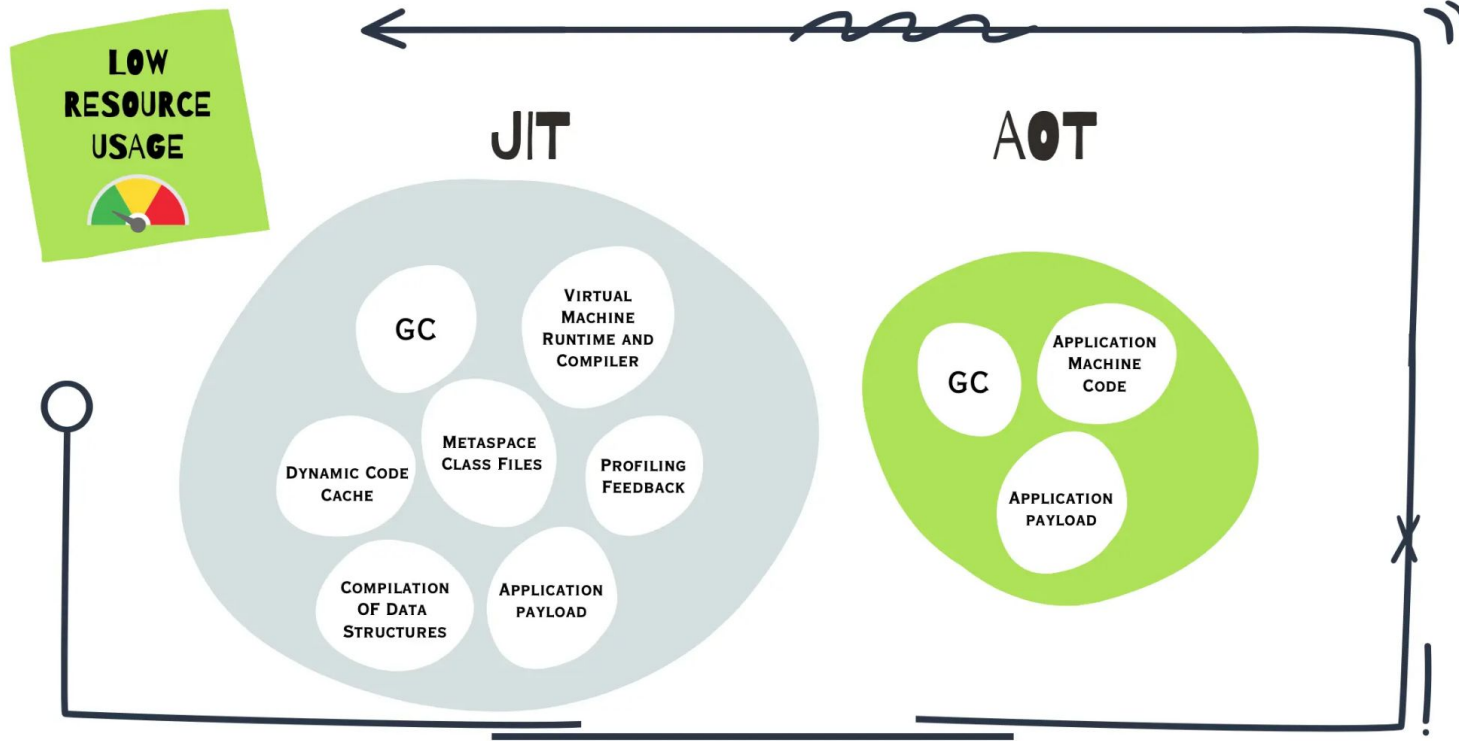
Startup



Serving

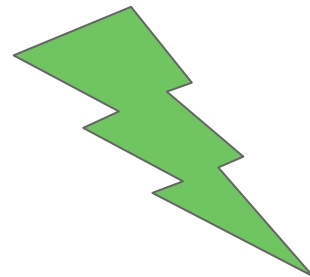


JIT vs AOT



Sources : <https://geekyants.com/blog/diving-deep-into-graalvm-and-mastering-the-art-of-observability-using-micrometer>

Kube Startup CPU Boost



```
apiVersion: autoscaling.x-k8s.io/v1alpha1
kind: StartupCPUBoost
metadata:
  name: boost
  namespace: remi
selector:
  matchExpressions:
  - key: app.kubernetes.io/name
    operator: In
    values:
    - "my-app"
spec:
  resourcePolicy:
    containerPolicies:
    - containerName: my-container
      fixedResources:
        requests: 1000m
  durationPolicy:
    fixedDuration:
      unit: Seconds
      value: 60
```

1. CRD "StartupCPUBoost"

2. Sélection d'une ressource

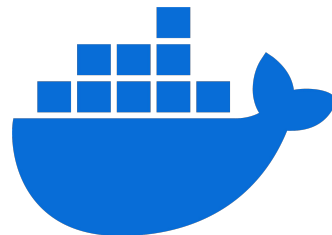
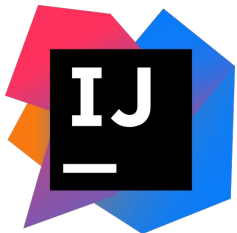
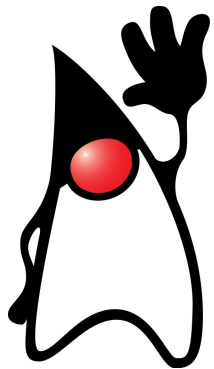
3. Boost du conteneur

4. Sur une durée / état

Avec Feature Gate "InPlacePodVerticalScaling"
(>= Kubernetes v1.27)

Plus d'info : <https://github.com/google/kube-startup-cpu-boost>

Et donc, notre environnement...



Et plus encore ?



Infra As Code : Pulumi

Docs / Pulumi IaC / Languages & SDKs / Java

Pulumi & Java

Pulumi supports writing your infrastructure as code using the Java language running on any [supported version](#) of Java 11 or later.

We support running Maven Pulumi programs, Gradle Pulumi programs, and Pulumi programs packaged as JAR files.



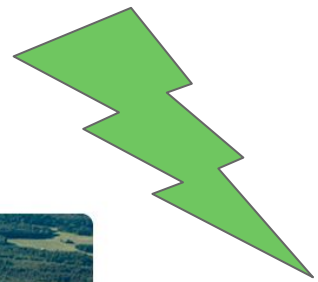
i Java is currently in preview. Feedback is greatly appreciated!
Please post any Bug Reports or Feature Requests in [GitHub Issues](#).

Infrastructure as True Code avec
Pulumi

- 🕒 13h00 - 13h15
- 👤 Bertrand Nau
- 📍 FabLab
- ⚡ Lightning
- 🔗 DevOps & Cloud

Domage, c'était hier :(

CLI : Picocli

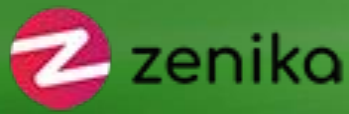


		Pause			
13h15	🕒 13:15 - 13:30				
		TinyGo, petit mais costaud ! 🍌	REST à sa place (ou "Maman, je dois faire de l'iot !")	Manifeste pour un artisanat logiciel responsable	Kescape, un escape game pour KubeLover
13h30	🕒 13h30 - 14h15	👤 Thierry Chantier 📍 Auditorium 🎓 Conférence 🔖 Découverte	🕒 13h30 - 14h15 👤 Charly Hamy 📍 Showroom 🎓 Conférence 🔖 Archi, Perf et Sécu	🕒 13h30 - 14h15 👤 Cécilia Bossard 📍 FabLab 🎓 Conférence 🔖 Sustainable IT	🕒 13h30 - 15h15 👤 Pierre Pironin, Florian Ruynat 📍 Espace immersion GI0 👤 Workshop 🔖 DevOps & Cloud
14h30	🕒 14h30 - 15h15	Anatomie d'une faille 👤 Olivier Poncet 📍 Auditorium 🎓 Conférence 🔖 Archi, Perf et Sécu	Exploiting Client-Side Path Traversal. CSRF is Dead, Long Live CSRF 🕒 14h30 - 15h15 👤 Maxence Schmitt 📍 Showroom 🎓 Conférence 🔖 Archi, Perf et Sécu	Picocli - mets du Java dans ton terminal ! 🕒 14h30 - 15h15 👤 Stéphane Philippart 📍 FabLab 🎓 Conférence 🔖 Lang & Frameworks	

La chance, c'est juste après ;)

References

- <https://grumpyf0x48.org/jbang-et-les-tests-unitaires/>
- https://developers.redhat.com/articles/2023/04/19/openjdk-8u372-feature-cgroup-v2-support#openjdk_8u372_cgroup_v1_and_v2_support
- <https://medium.com/norsys-octogone/a-la-d%C3%A9couverte-de-jbang-30d402ba8349>
- <https://github.com/google/kube-startup-cpu-boost>
- <https://www.youtube.com/watch?v=5aZtF5stYeU>



Merci !

Nicolas Muller - @zepouet
Rémi Verchère - @rverchere

