

An aerial night photograph of a city skyline, likely New York City, featuring a multi-lane highway with light trails from traffic, various skyscrapers, and the prominent, illuminated spire of the Empire State Building on the right side. The text "Learn Kubernetes the Java way" is overlaid in white, bold font across the center of the image.

**Learn Kubernetes the Java way**



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**ATOMICJAR**



**Testcontainers**



**Testcontainers  
Cloud** BY ATOMICJAR

OUR OPEN ROLES

**Technical Account Executive**

**Staff Cloud Engineer**

**Senior Product Designer**

**Senior Manager - Product Marketing**

**Java Engineer**

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WE'RE HIRING

## How to draw an owl

1.

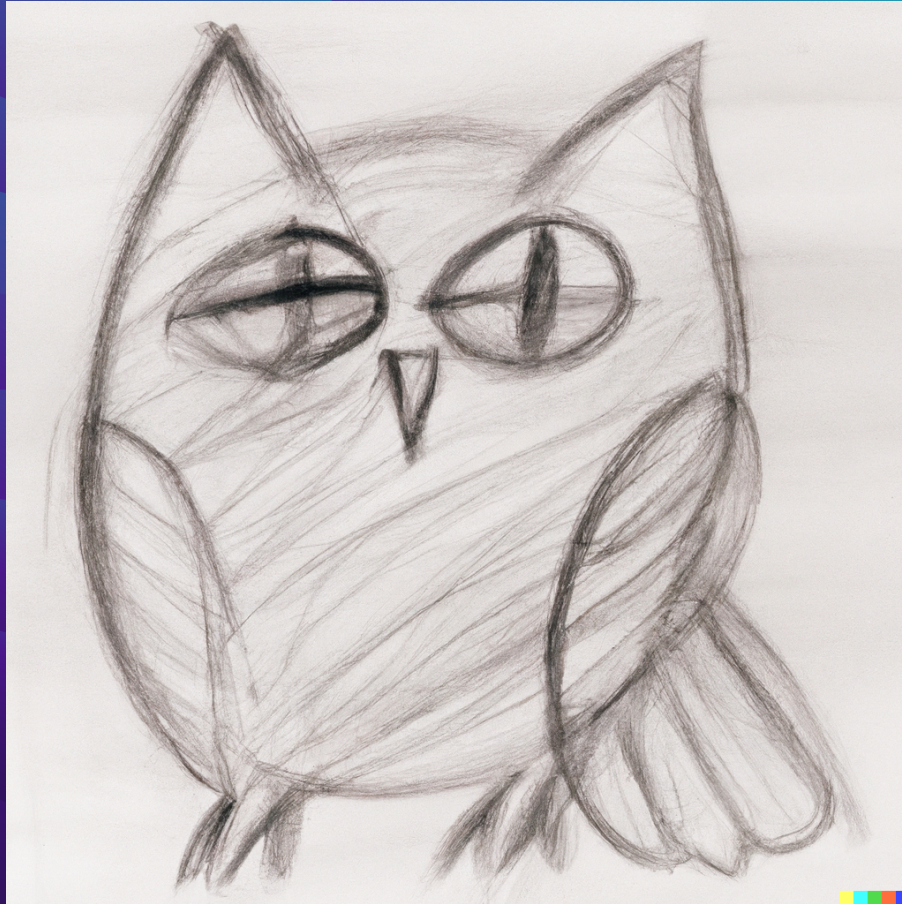


2.



1. Draw some circles

2. Draw the rest of the owl





**Testcontainers**



**Testcontainers**

# Unit tests with real dependencies



**TEST DEPENDENCIES AS CODE**

Get lightweight and throwaway containers during your tests



**FOR YOUR ENTIRE STACK**

Test against any container image: database, message broker, browser, etc.



**FOR ANY LANGUAGE**

Get started with the open source library for any of 6+ languages

WE ❤️ OPEN SOURCE  
& EMPLOY MAINTAINERS





- Container lifecycle & cleanup
- Container & service configuration
- Integration with frameworks



# Modules [testcontainers.com/modules/](https://testcontainers.com/modules/)

Testcontainers modules are preconfigured implementations of various dependencies that make writing your tests even easier!














   Official Modules

## Languages

 All .NET Go Java Node.js

## Categories

 All

 <b>ArangoDB</b> NoSQL Database <input type="button" value="Java"/> <input type="button" value="Node.js"/>	 <b>Azure Cosmos DB</b> Cloud <input type="button" value="Java"/>	 <b>Azure SQL Edge</b> Cloud <input type="button" value=".NET"/>
 <b>Cassandra</b> NoSQL Database <input type="button" value="Java"/>	 <b>ClickHouse</b> Relational Database <input type="button" value="Java"/>	 <b>CockroachDB</b> Relational Database  <input type="button" value="Java"/>
 <b>Consul</b> Other <input type="button" value="Java"/>	 <b>Couchbase</b> NoSQL Database <input type="button" value="Java"/> <input type="button" value="Go"/> <input type="button" value=".NET"/>	 <b>CouchDB</b> NoSQL Database <input type="button" value=".NET"/>
 <b>DB2</b> Relational Database	 <b>Dynamalite</b> NoSQL Database	 <b>DynamoDB</b> NoSQL Database

# Modules

testcontainers.com/modules/

Testcontainers modules are preconfigured implementations of various dependencies that make writing your tests even easier!

  Official Modules

## Languages

All

.NET

Go

Java

Node.js

## Categories

All



### CockroachDB

Relational Database

Java



### LocalStack

Cloud

Java

Go

.NET



### Neo4j

NoSQL Database

Java

Go

.NET

Node.js



### Pulsar

Message Broker

Java

Go



### Redpanda

Message Broker

Java

.NET



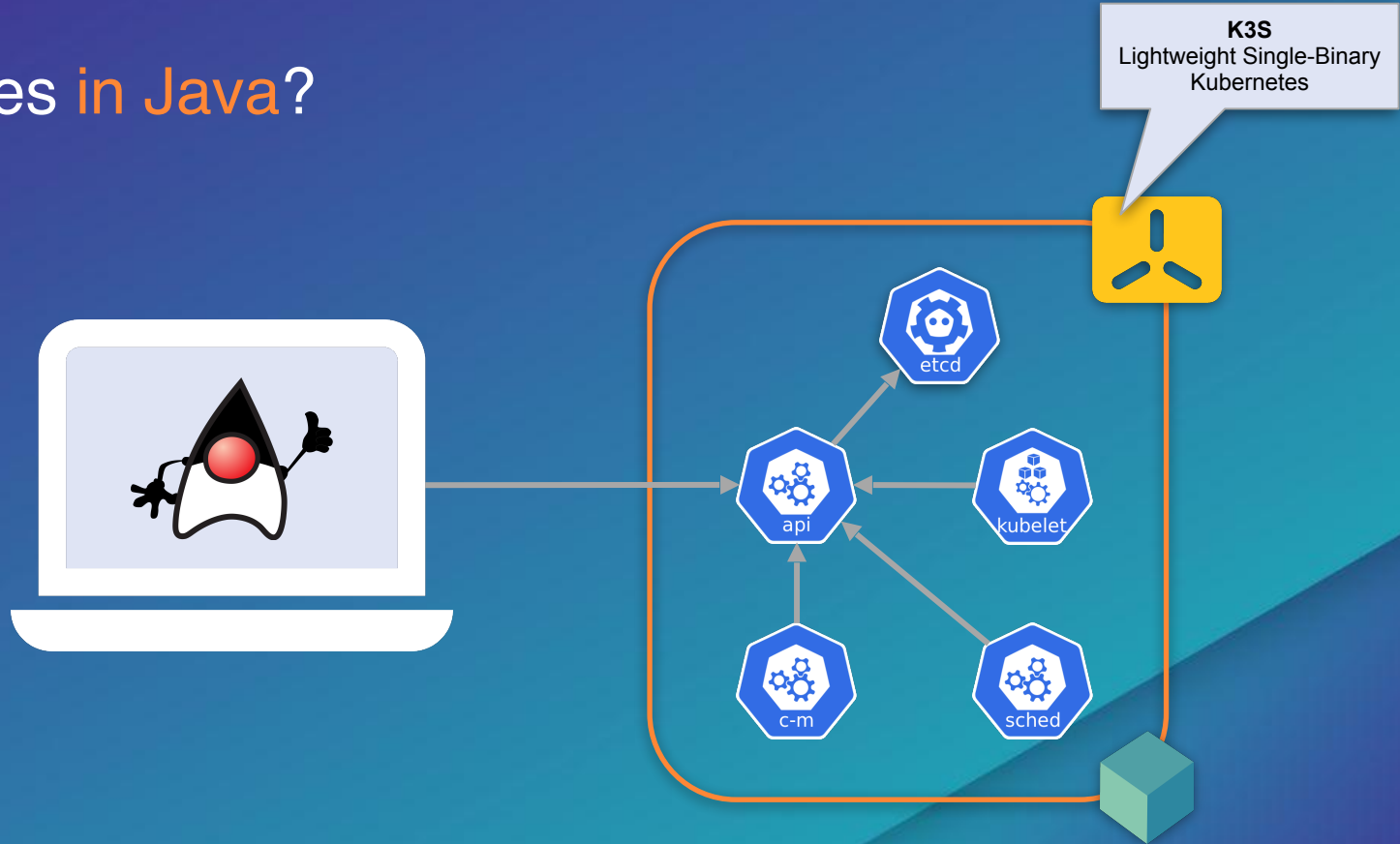
### YugabyteDB

Relational Database

Java



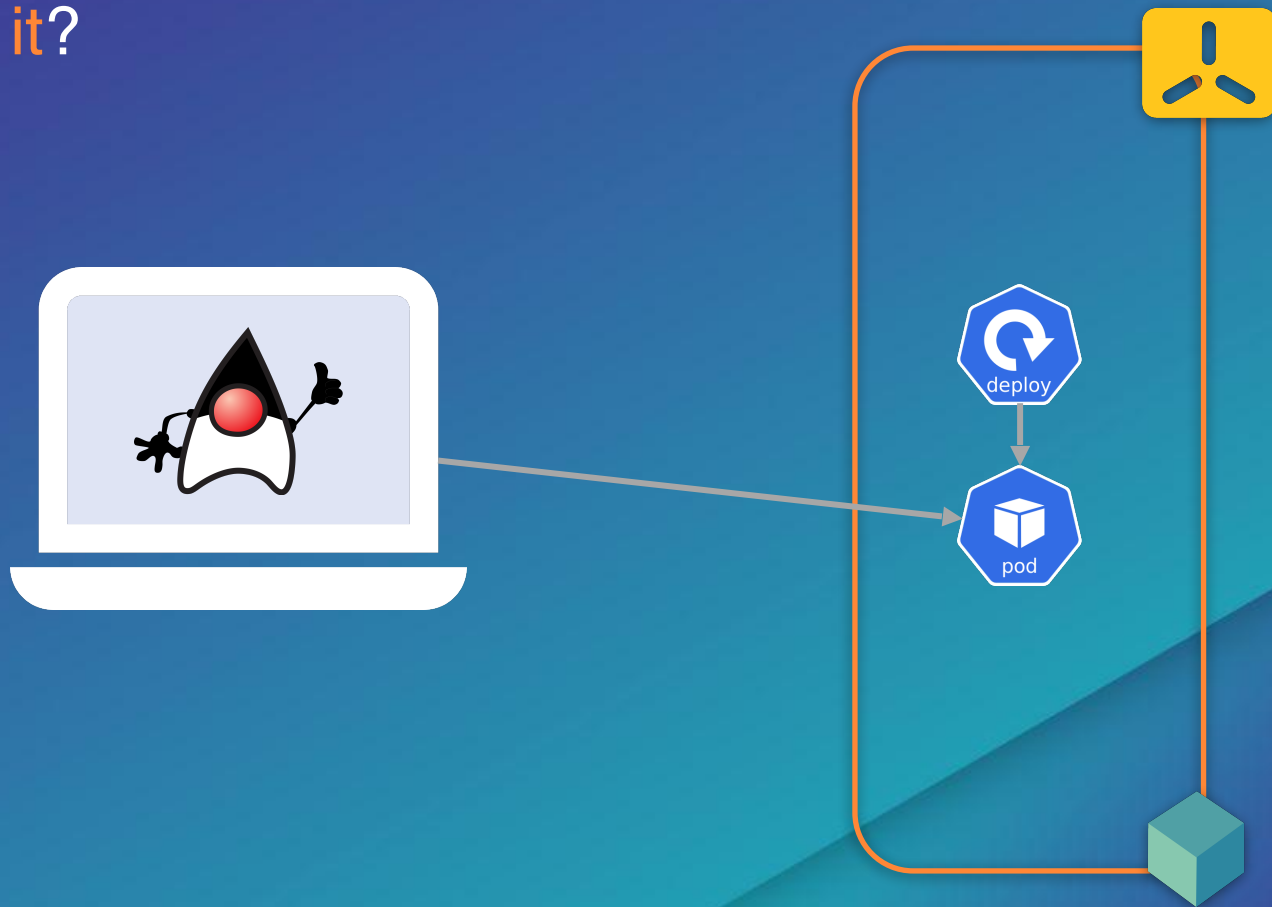
# Kubernetes *in Java*?





Show me the **code**

Can I **run** it?

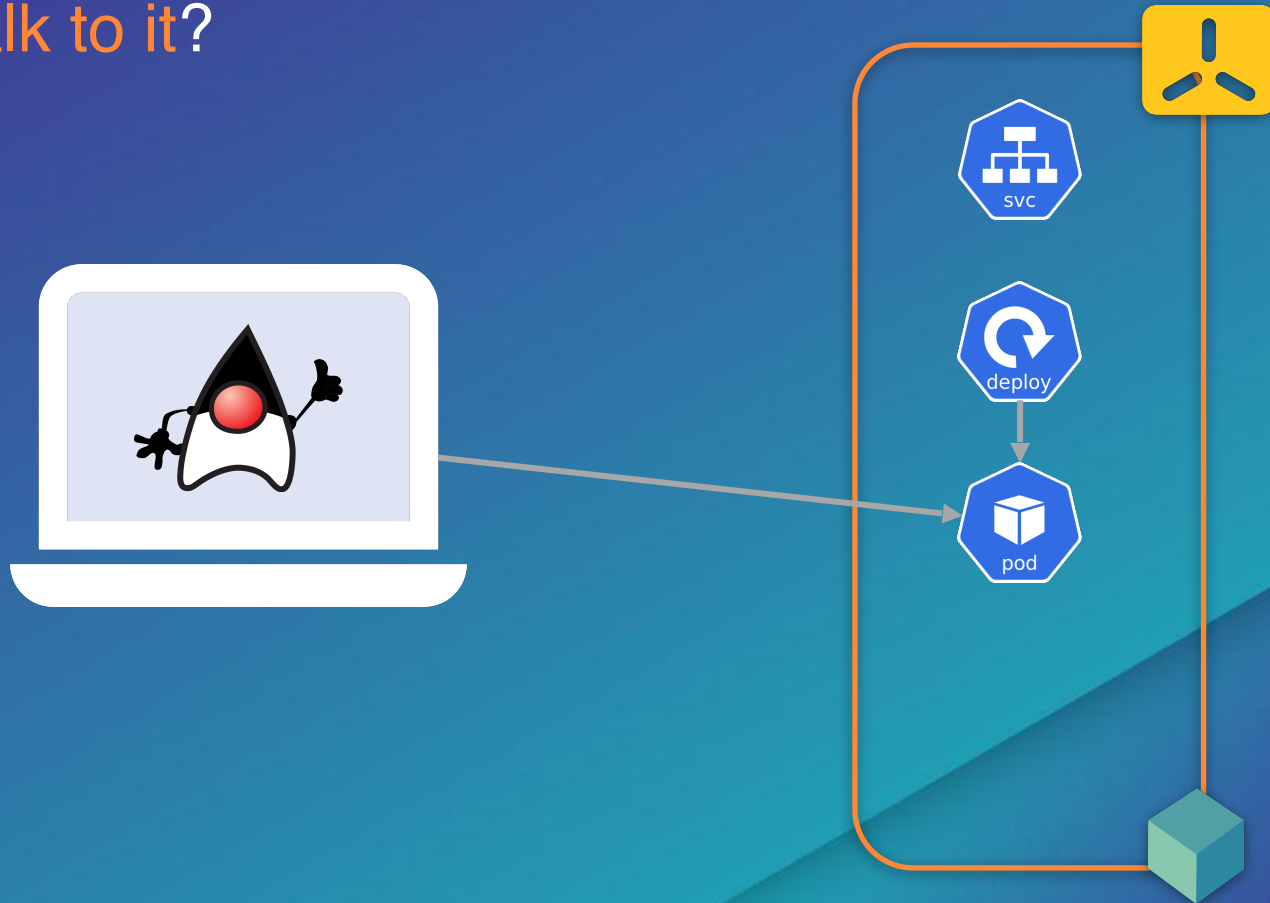




Show me the **code**



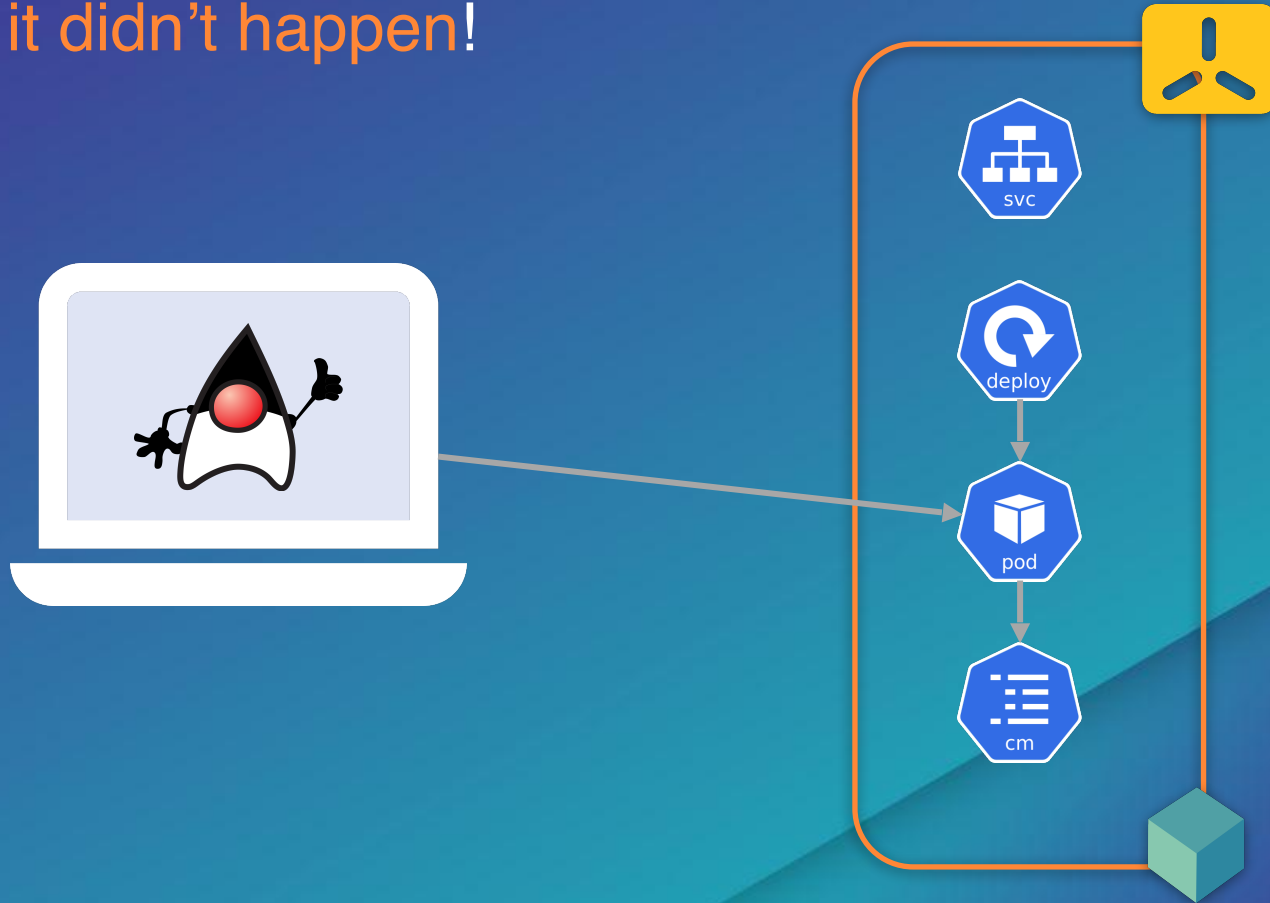
Can I *it* talk to it?





Show me the **code**

Config or it didn't happen!





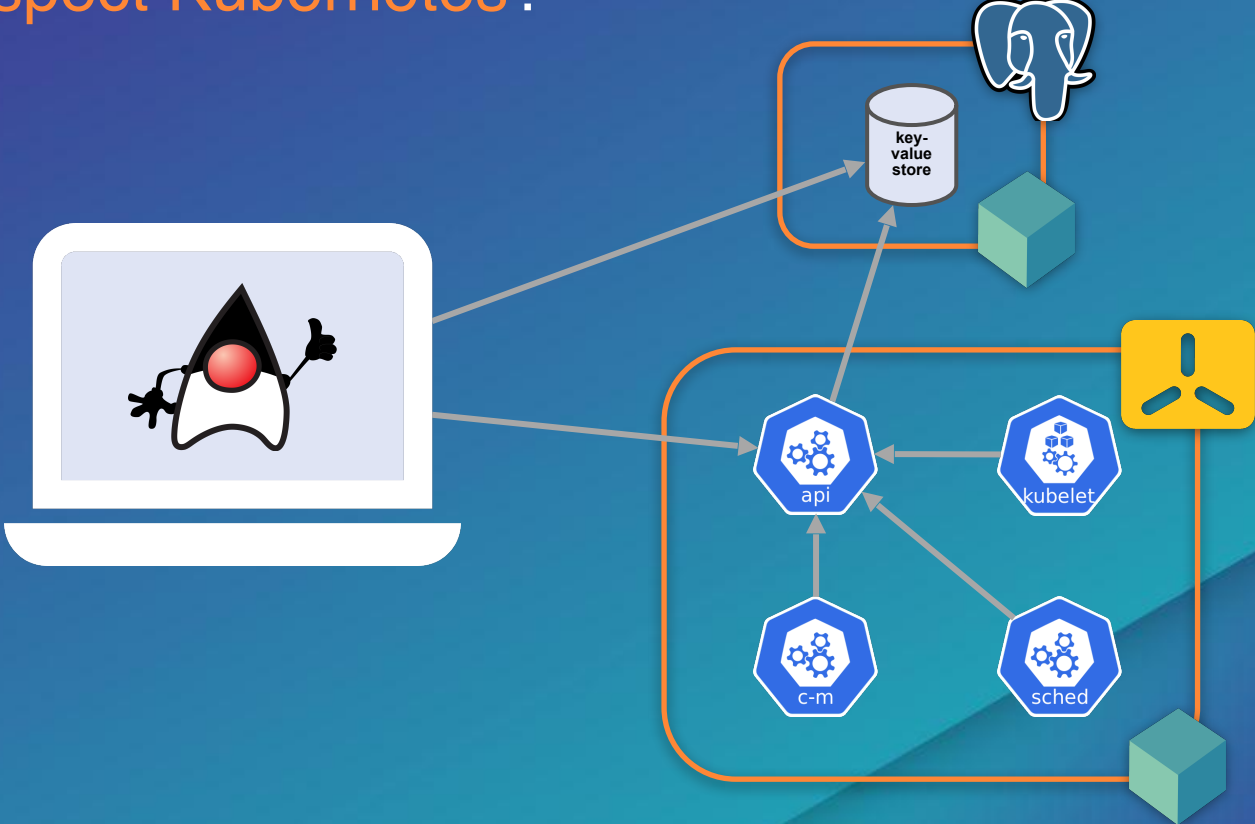
Show me the **code**

**SOME PPL JUST WANT**



**TO SEE K&S BURN**

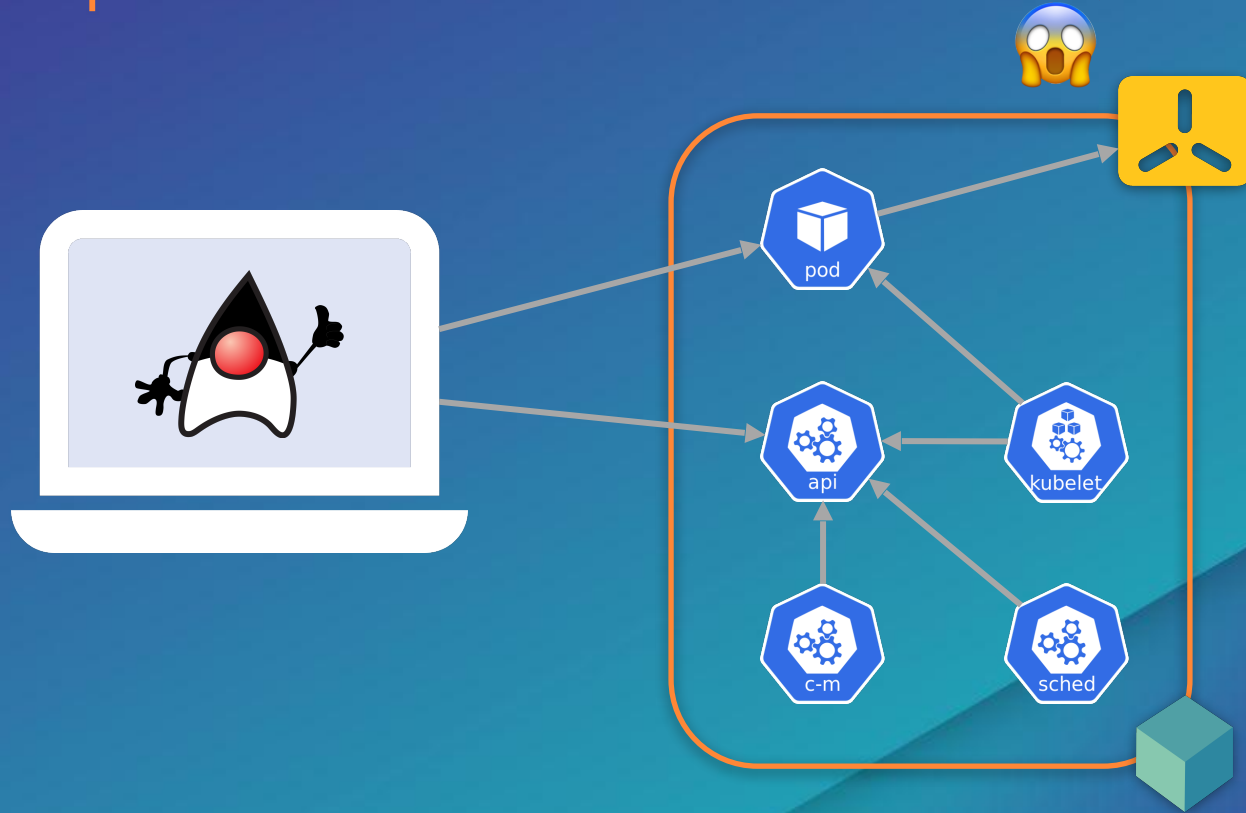
# How to inspect Kubernetes?





Show me the **code**

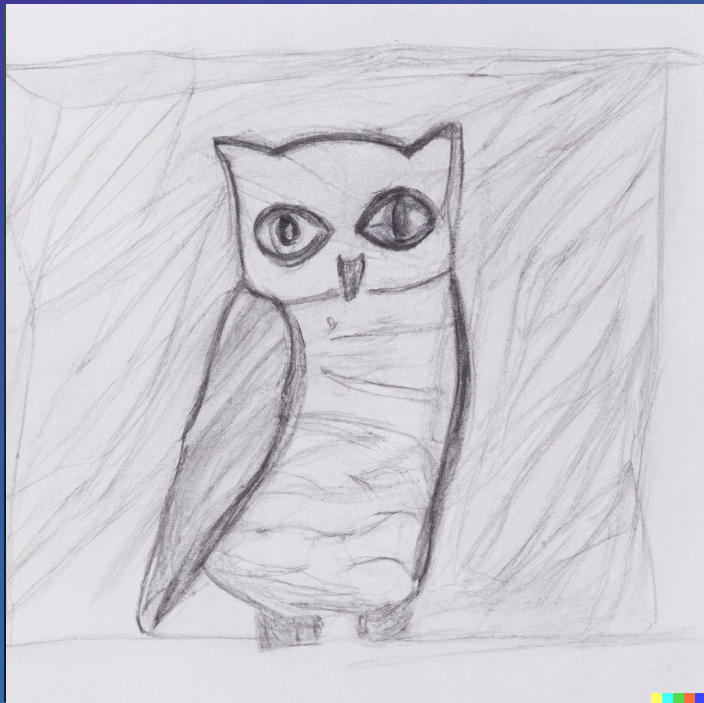
# How to *escape* Kubernetes?







Show me the **code**

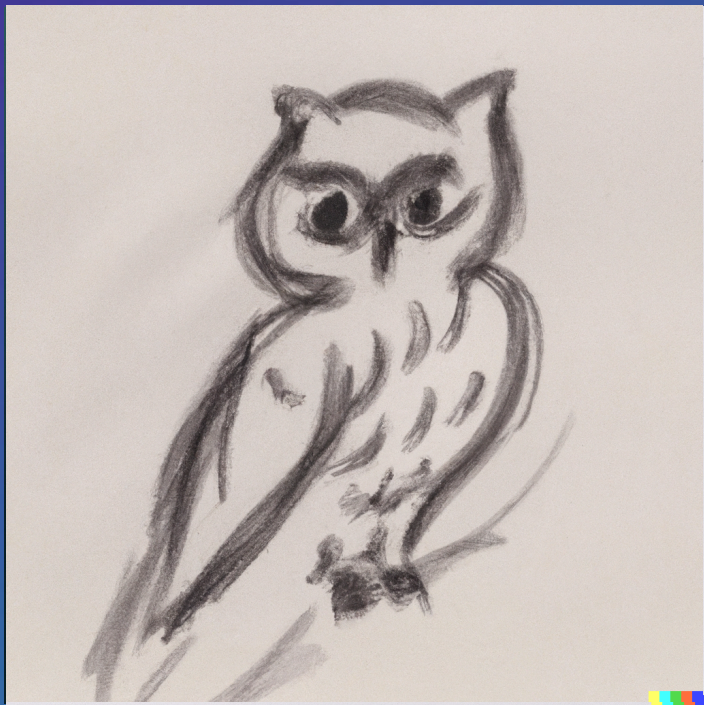


## Control Plane

- API server
- etcd
- kube-controller-manager
- kube-scheduler

## Data Plane

- kubelet
- kube-proxy



- Deployment
- Service
- ConfigMaps
- Secrets
- Pods

<https://kubernetes.io/docs/concepts/overview/components/>

What **next**?

<https://kubernetes.io/docs/tutorials/kubernetes-basics>

<https://github.com/kelseyhightower/kubernetes-the-hard-way>

[www.testcontainers.org](http://www.testcontainers.org)



# Testcontainers Cloud

BY ATOMICJAR



Go to [testcontainers.cloud](https://testcontainers.cloud) and start testing!

# Test Without Limits. Ship With Confidence.



**Testcontainers**  
**Cloud** BY ATOMICJAR



## Developer-first Testing

Test everything on your laptop without worrying about resources; no local docker daemon needed



## Effortlessly Fast CI

Run your ever-growing test suite without scaling your CI, and speed it up by running tests in parallel



## Reliable Test Suites

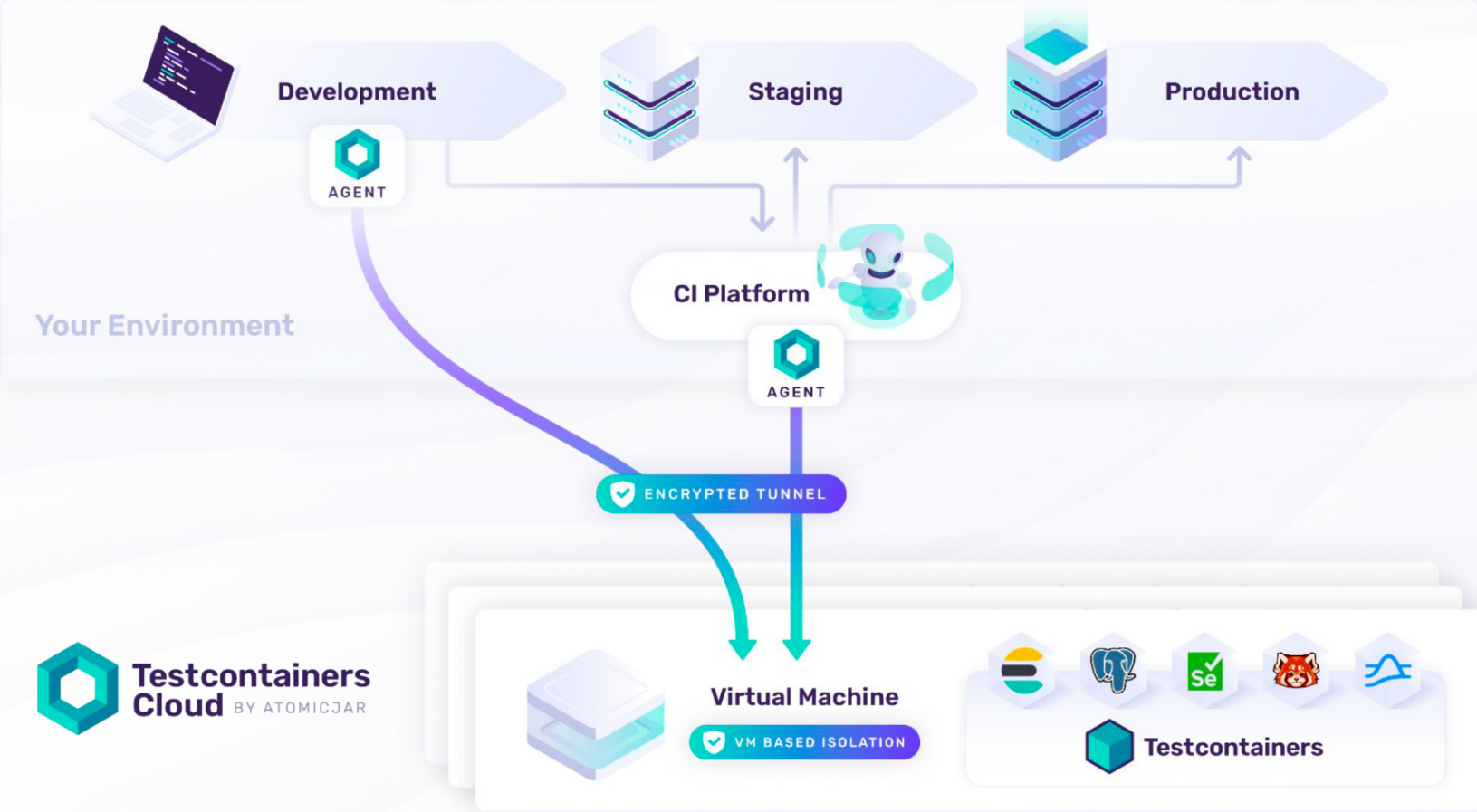
Enhance team efficiency by getting rid of flaky tests and ensuring consistency from dev to CI



## Enterprise-ready

Adopt Testcontainers safely with VM-based isolation, in-transit encryption, and no local privileges

# Start testing in minutes



# Visit AtomicJar booth 25!



**Test without limits.  
Ship with confidence.**

Reliable Test Suites. Effortlessly Fast CI.



Start Testing in Minutes

Test Anything You Can Containerize



Build  
Go anywhere



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