

# Alternative ways to deploy PxWeb

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TALL

SOM FORTELLER

# PxWeb in the Cloud

PX-REFERENCE GROUP MEETING 2019

YEREVAN, ARMENIA 12 – 13 NOVEMBER

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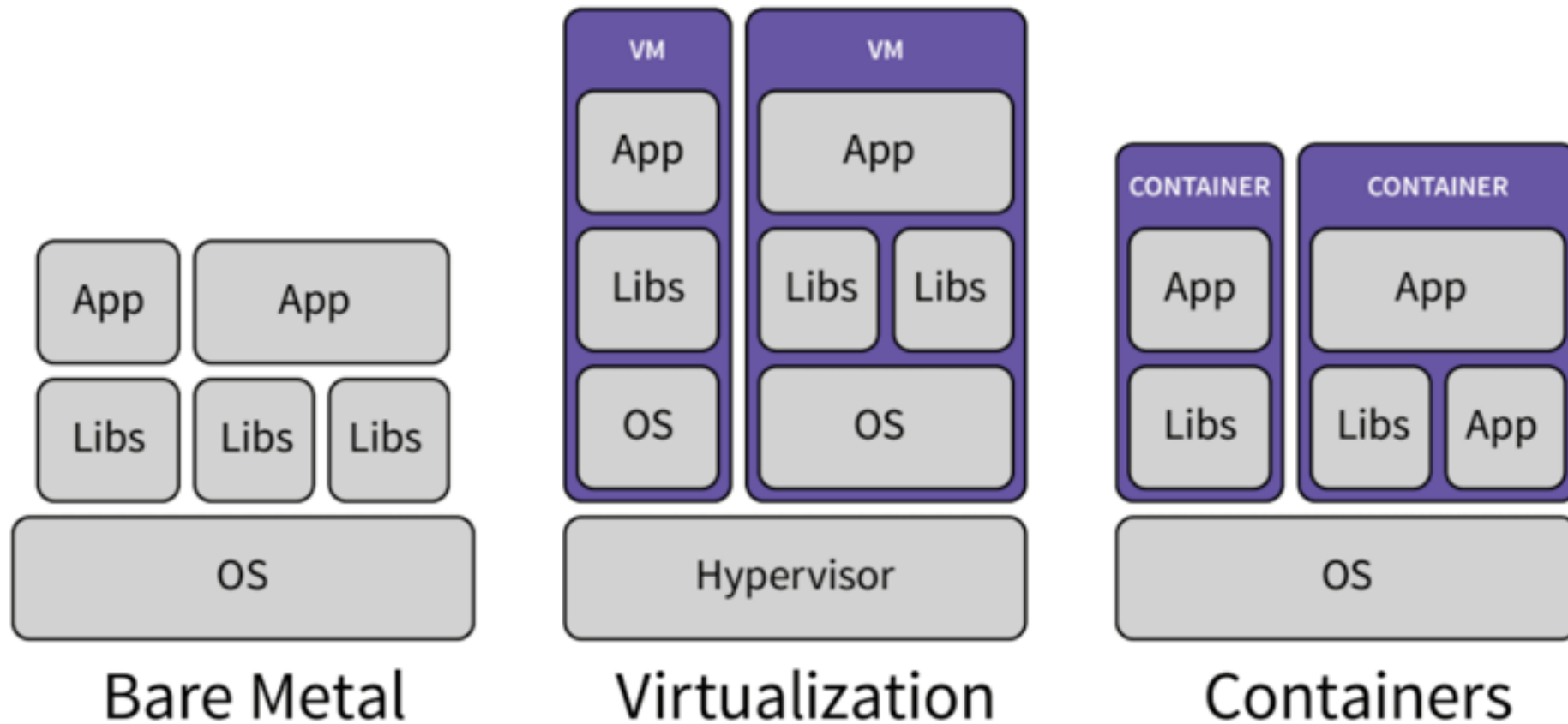


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# Containers




# Container explainer



Installation

OS / Arch 3


[Learn more about packages](#)

 Install from the command line

```
$ docker pull ghcr.io/pxtools/pxwebapi:2
```

Recent tagged image versions

**latest** 2 2.0 2.0.1

Published 7 days ago · Digest 


 19

v2.0.0

Published 29 days ago · Digest 

 76


v2.0.0-beta.1


Published about 1 month ago · Digest 

 0

Details

 PxTools

 PxWebApi

 Apache License 2.0

 9 stars

Last published

Issues

**7 days ago**

**7**

Total downloads

**414**

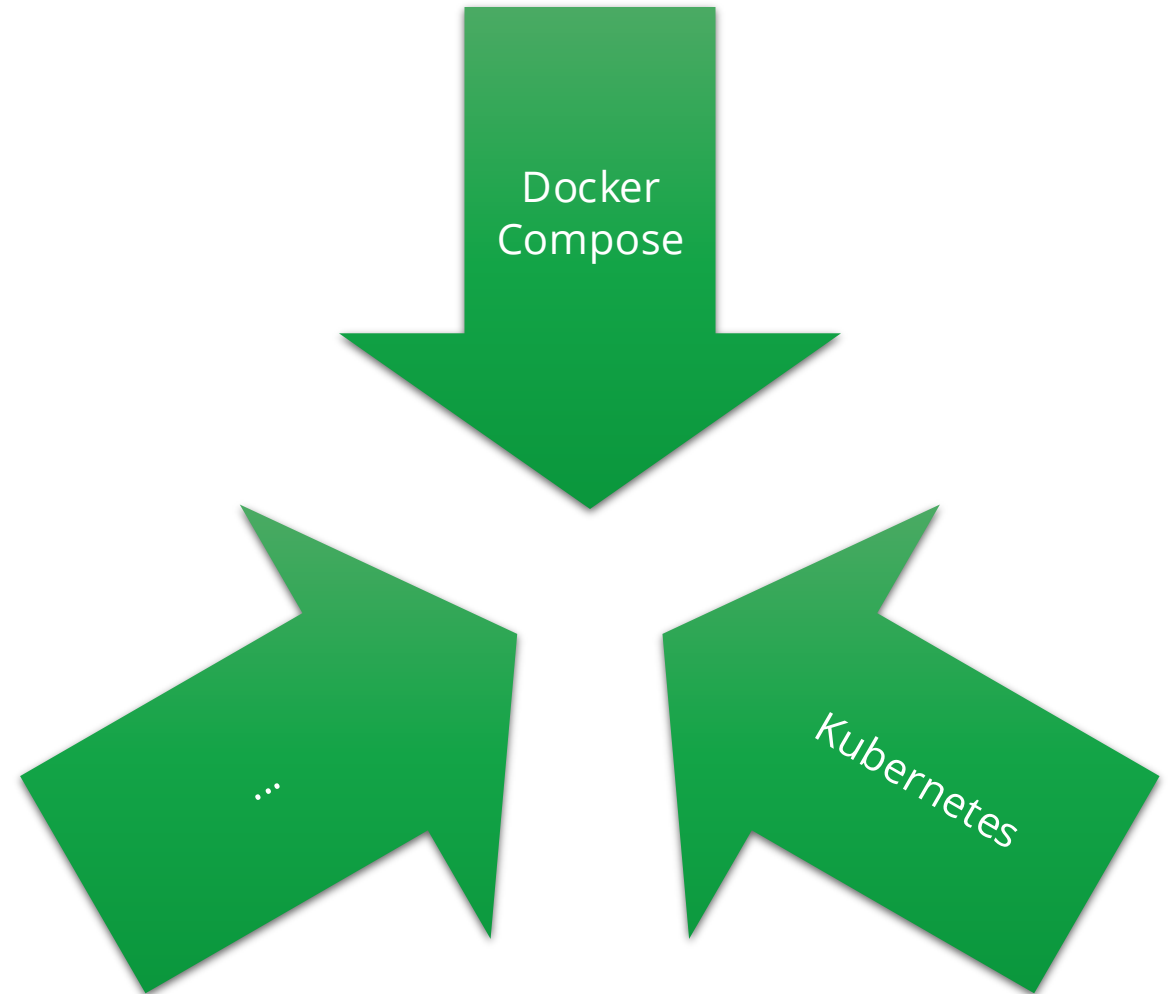


Contributors 17



# Possibilities

- Many options from Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP)
- [Docker Compose](#) and [Kubernetes](#) are both tools for managing containerized applications, but they differ significantly in their scope and complexity.





## Downloadable version of PxWeb and API

- Instructions  
[www.pxtools.net/PxWeb2](http://www.pxtools.net/PxWeb2)
- Docker compose
  - PX-file database
  - CNMM database
- Binaries and instructions for  
Microsoft IIS will come later



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# Key Differences Summarized

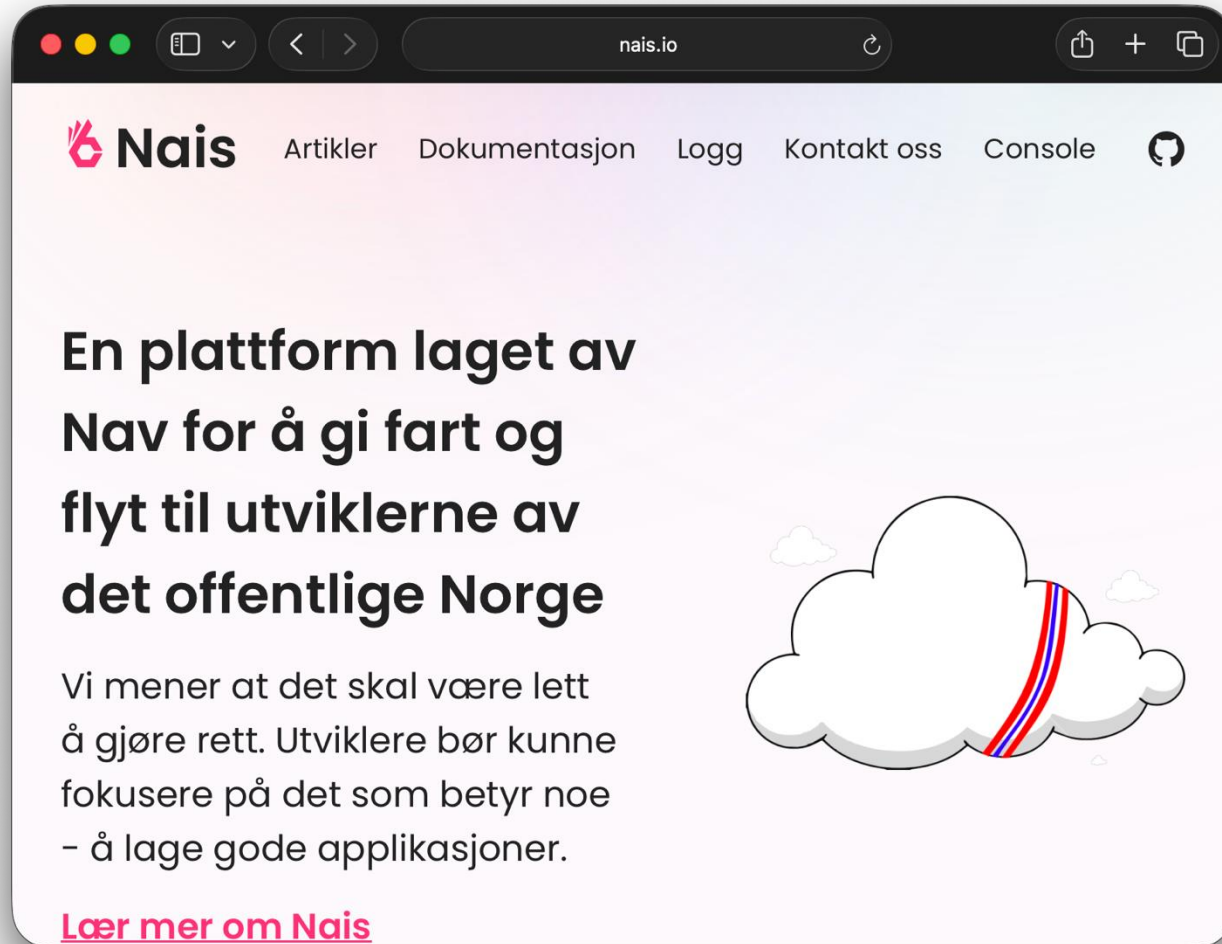
- **Docker Compose:** Suitable for individual developers, small projects, local development environments, and applications that run on a single server without complex scaling or high availability requirements.
- **Kubernetes:** Essential for large-scale, distributed applications, production environments requiring high availability, automated scaling, and advanced orchestration features across multiple machines.

Feature	Docker Compose	Kubernetes
Scope	Single host, local development	Multi-node cluster, production environments
Complexity	Simple, easy to learn	Complex, steeper learning curve
Scalability	Limited, manual scaling on single host	High, automated scaling across clusters
High Availability & Fault Tolerance	Minimal built-in support	Robust, self-healing, and fault-tolerant
Orchestration Features	Basic	Advanced (e.g., rolling updates, service discovery)





# Kubernetes in Statistics Norway



<https://docs.nais.io/>



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## App Overview

## Vulnerability Report

## Deployments

## Cost

## Utilization

## Ingresses

## Logs

## Manifest

## Delete

arkitektur / Applications /

arkitektur-pxwebapi test

Last deployed 5 minutes ago

## Instances

Restart app

CPU and/or memory requests differ by more than 50% from the recommended values. To optimize resource usage and cost, consider adjusting the requested resources. Refer to the application's [utilization](#) page for more details.

## Resources:

## CPU:

Request:	Not set
Limit:	Not set
Usage of request:	0.00%

## Memory:

Request:	0.00 B (default)
Limit:	Not set
Usage of request:	0.00%

## Scaling Configuration

2 - 4 instances based on **CPU usage** (threshold: 50%)

## 2 application instances

**arkitektur-pxwebapi-ccdf4784f-qwtg2**  
Created 5 minutes ago, Running

0.00 B (NaN%)  
 0 CPUs (NaN%)

## Cost

September: 0,31 €

[View details](#)

## Vulnerabilities

Last updated 3 minutes ago

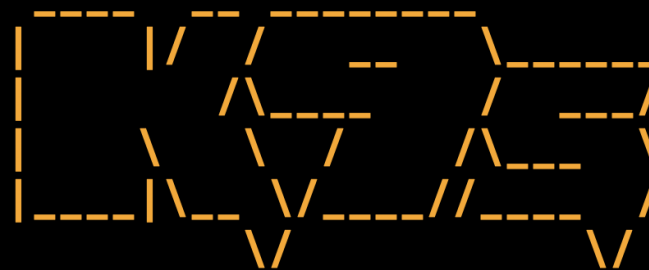
0	Critical
0	High
0	Medium
0	Low
0	Unassigned

[View vulnerability report](#)

## Activity

[Deployed](#) arkitektur-pxwebapi to test  
By runejo 5 minutes ago

Context: gke\_nais-test-19b2\_europe-north1\_nais-test [  
Cluster: gke\_nais-test-19b2\_europe-north1\_nais-test  
User: gke\_nais-test-19b2\_europe-north1\_nais-test  
K9s Rev: v0.50.13  
K8s Rev: v1.33.4-gke.1172000  
CPU: 18%  
MEM: 51%

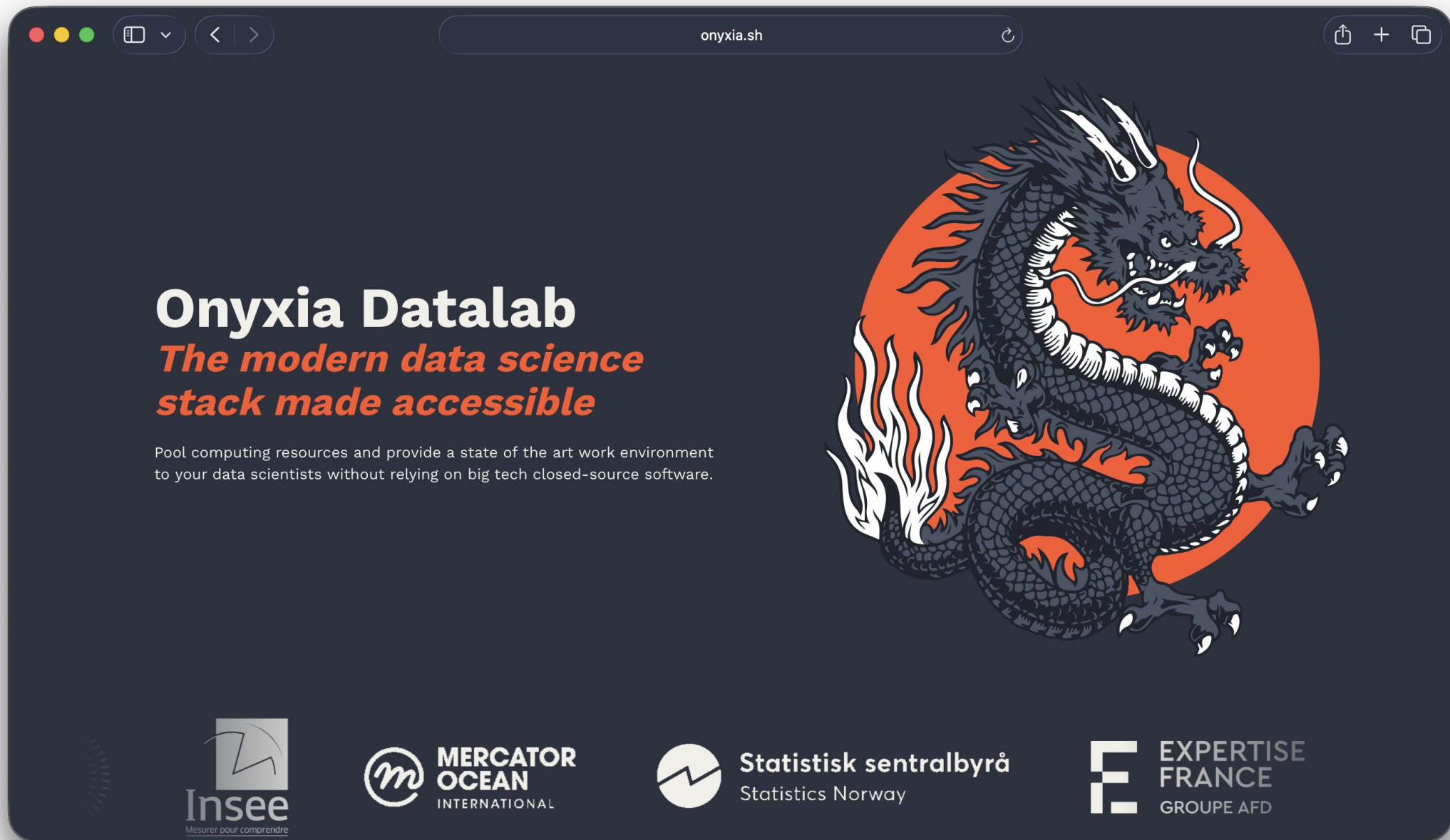


### \_\_\_\_\_ pods(arkitektur)[4] \_\_\_\_\_

NAME↑	PF	READY	STATUS	RESTARTS	CPU	%CPU/R
arkitektur-pxweb-76689f96bf-wrg9q	●	1/1	Running	0	1	0
arkitektur-pxweb-76689f96bf-zhnwr	●	1/1	Running	0	0	0
arkitektur-pxwebapi-554484b49d-5q2zz	●	1/1	Running	0	1	0
arkitektur-pxwebapi-554484b49d-hdrh8	●	1/1	Running	0	1	0

<pod>





# Missing persistence pieces

## 1. PX file storage

- PVC (ReadWriteOnce, ReadOnlyMany), GCS and S3 buckets

## 2. Search Index storage

- Lucene.NET, OpenSearch

## 3. Saved Query storage

- Json files, mssql/oracle/postgres database, GCS, S3



# Links

- [github.com/PxTools](https://github.com/PxTools)
- [pxtools.net](https://pxtools.net)
- [pxtools.slack.com](https://pxtools.slack.com)
- [groups.google.com/g/pcaxis](https://groups.google.com/g/pcaxis)





# Kiitos!

