

# Installing Jenkins X

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INDEPENDENT

@mogronalol



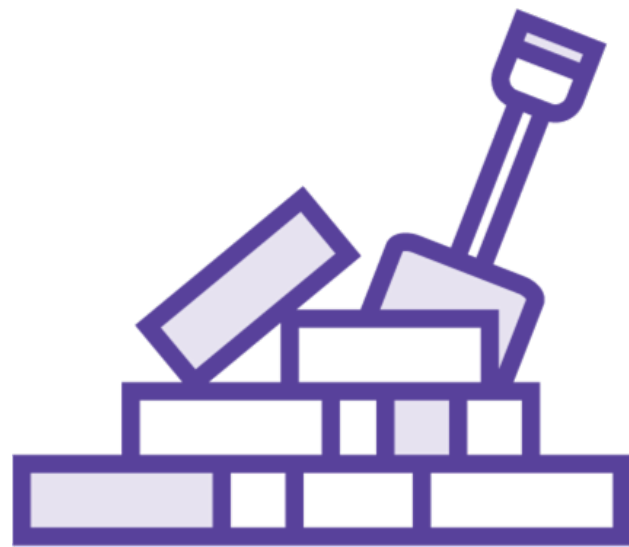
# Overview

**Provision a Kubernetes cluster with Terraform**

**Use jx boot to install Jenkins X into the cluster**



# A Two Step Process



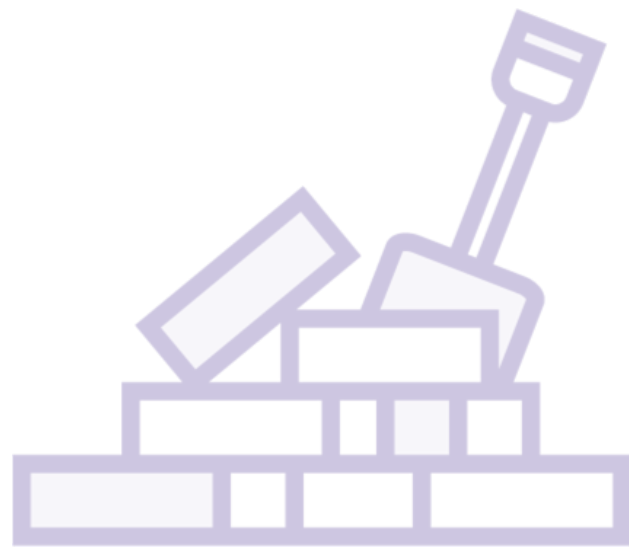
**Create cluster**



**Install and configure  
Jenkins X**



# A Two Step Process



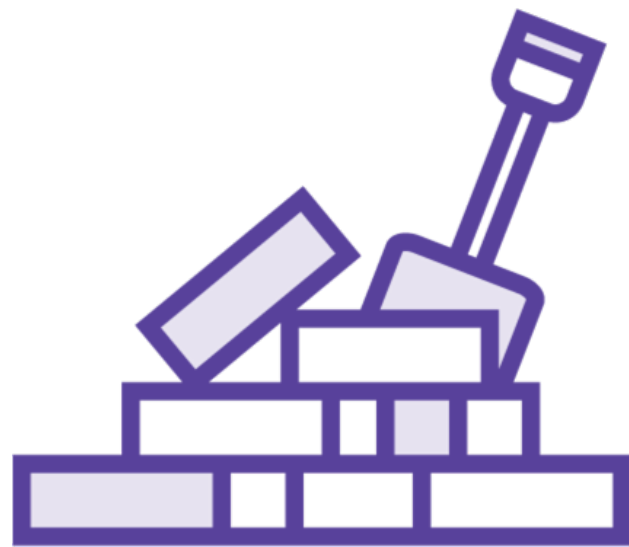
Create cluster



**Install and configure  
Jenkins X**



# A Two Step Process



**Create cluster**



**Install and configure  
Jenkins X**



# What We Will and Won't Be Doing and Why



**Creating our cluster manually**



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Creating our cluster manually



**Running our cluster locally using Minikube**



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Creating our cluster manually



Running our cluster locally using Minikube



**Using jx create cluster**





# What We Will and Won't Be Doing and Why



Creating our cluster manually



Running our cluster locally using Minikube



Using jx create cluster



**Creating a cluster with Terraform on Google Cloud**



# Why Terraform?

**Infrastructure-as-code,  
following GitOps principles**



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**Modules for all major cloud  
providers created by  
community**



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**Production readiness**



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**Infrastructure-as-code,  
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**Production readiness**

**Check out a Pluralsight course!**



# Demo

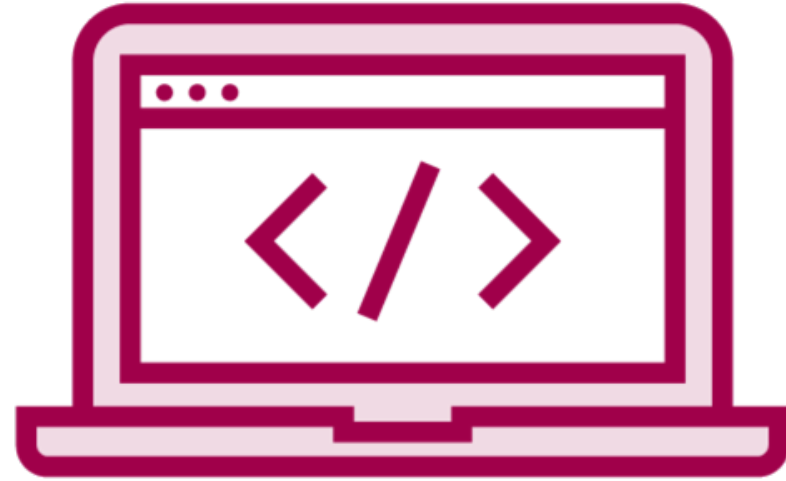
**Create a Terraform project**

**Import the Google Cloud Jenkins X module**

**Apply Terraform**

**Verify our cluster was created**





## Jenkins X CLI

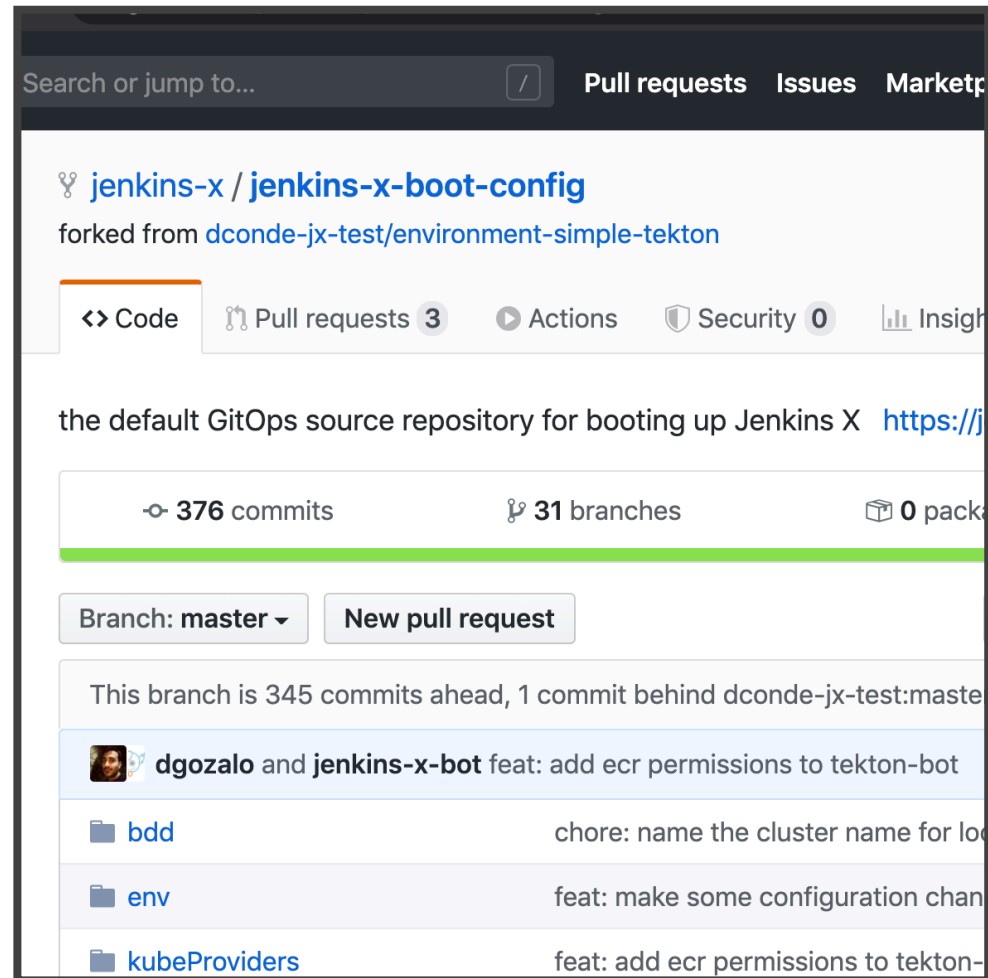
**Command-line interface for Jenkins X**

**Supports wide array of commands**

**We'll focus on jx boot this module**



# Jenkins X Boot



**Jenkins X installation as code**

**GitOps principles**

**Self-installation via Jenkins X pipelines**

**Configurable through jx-requirements.yml**

**Can get started by forking the base repository**





# GitHub Integration



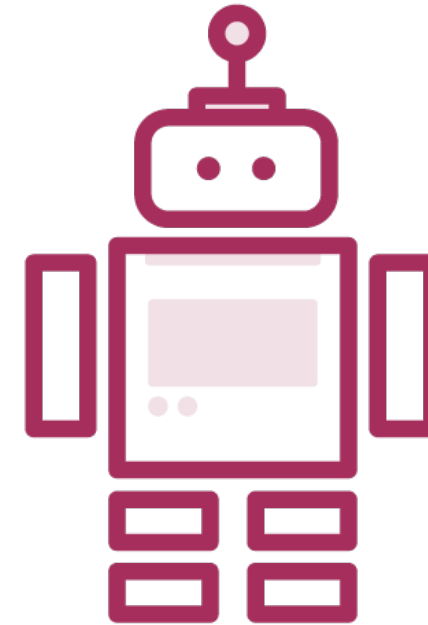
**Creates repositories within a  
GitHub organisation**



# GitHub Integration



Creates repositories within a  
GitHub organisation



**Makes commits under a bot user**



# Demo

**Install JX and Helm**

**Setup GitHub organisation and members**

**Clone Jenkins X boot config**

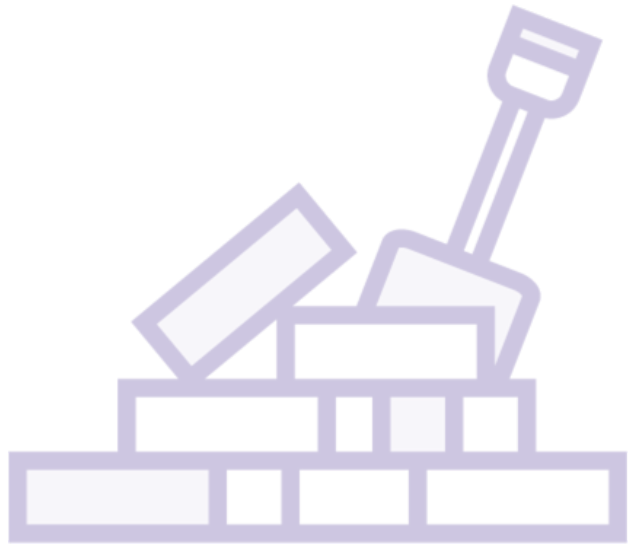
**Configure requirements.yaml**

**Execute jx boot**

**Installation verification**



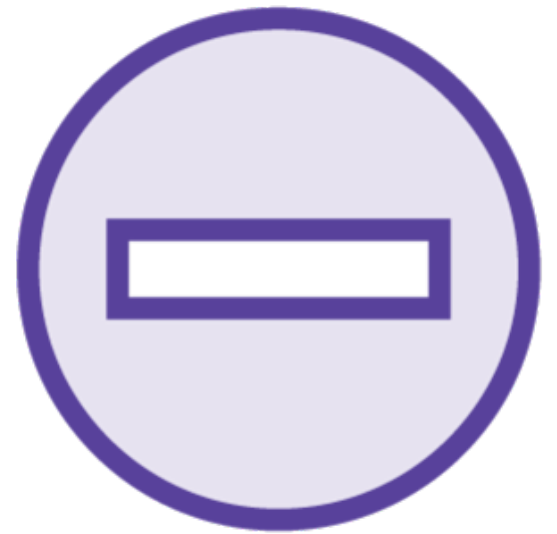
# A Three Step Process



Create cluster



Install and configure  
Jenkins X



**Destroy or downsize  
cluster**



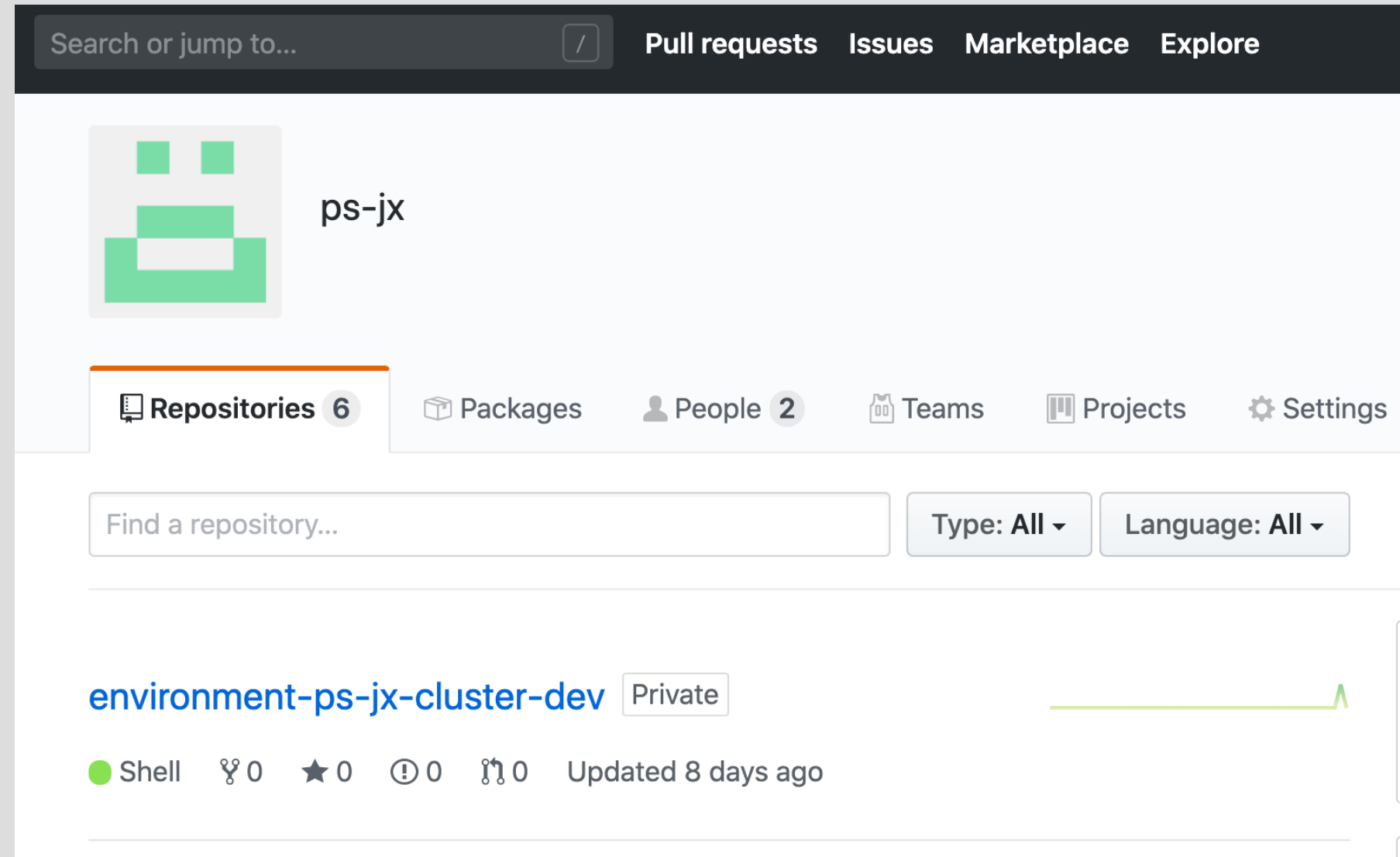
# Demo

**Downsize our cluster**

**Destroy all infrastructure using Terraform**



# PS-JX Organisation and Helper Scripts



<https://github.com/ps-jx>



# Overview

**Creating a Kubernetes cluster with  
Terraform**

**Installed Jenkins X using jx-boot**

