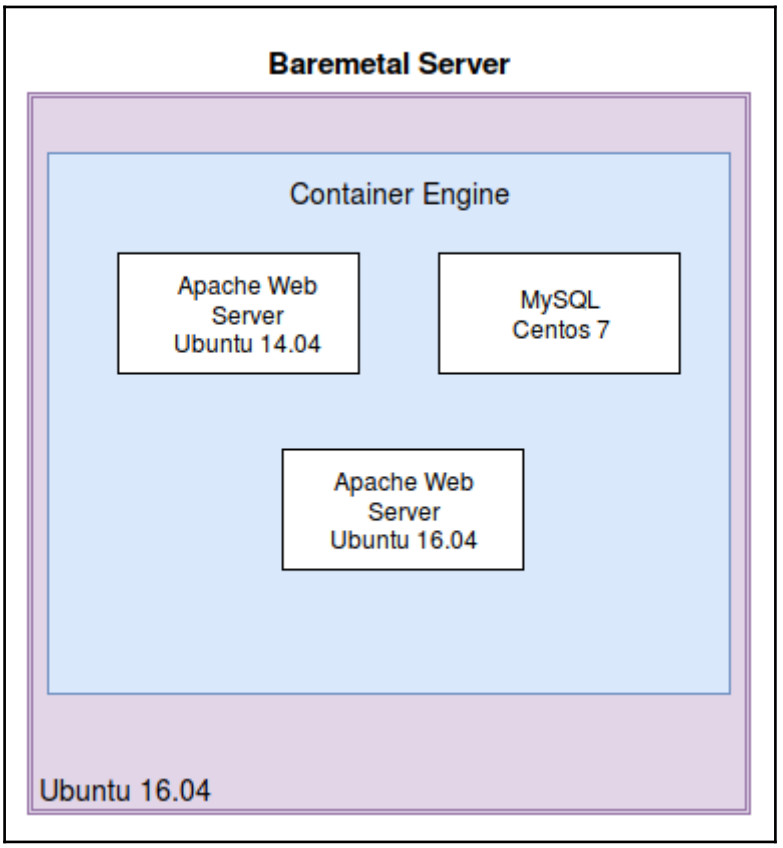
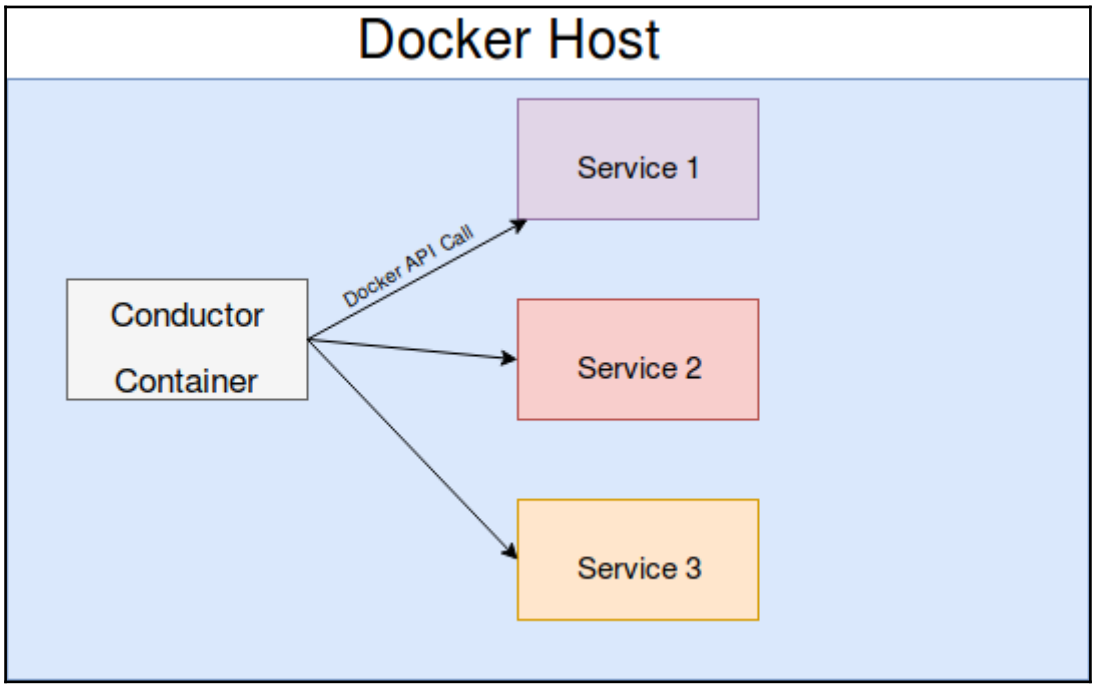
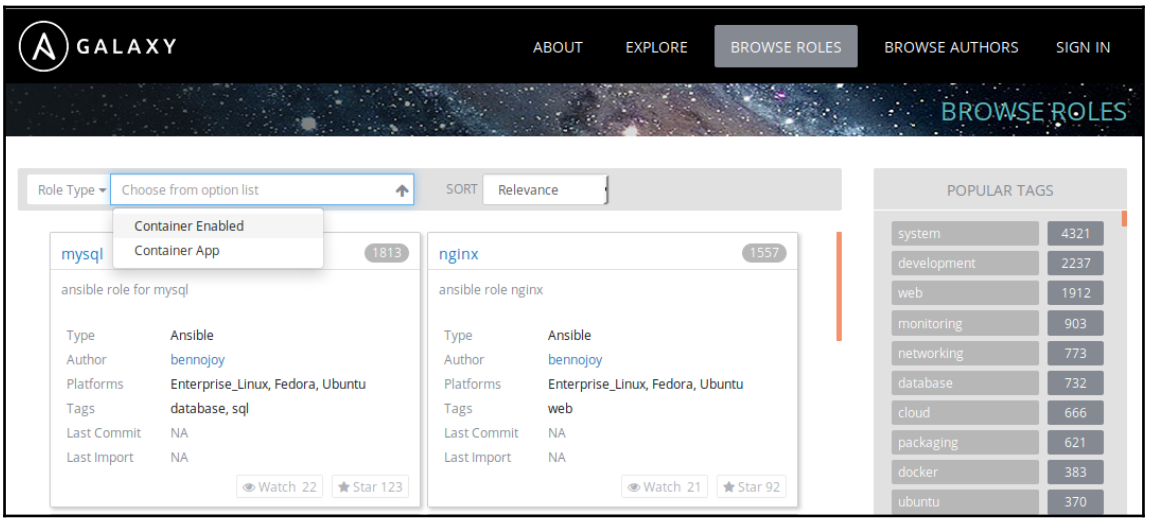
Chapter 1: Building Containers with Docker

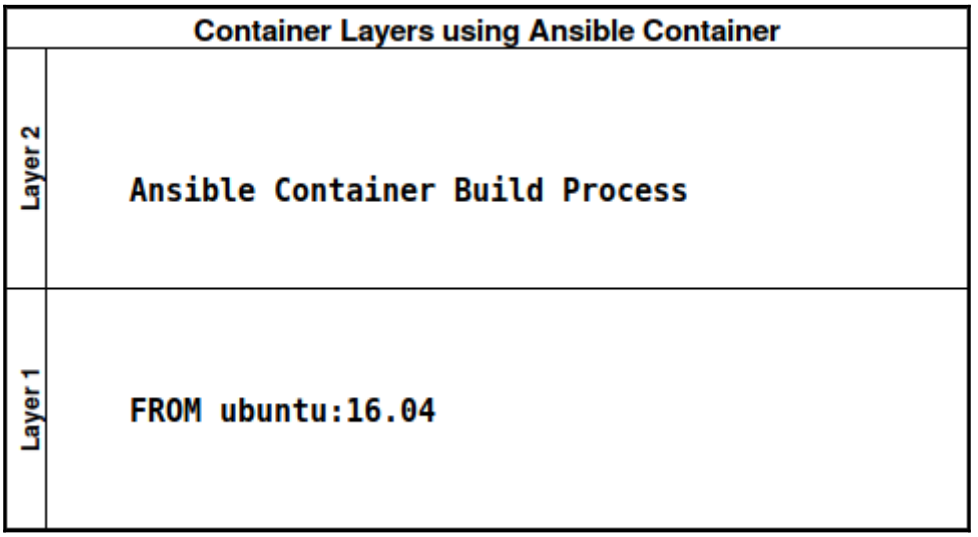


Chapter 2: Working with Ansible Container

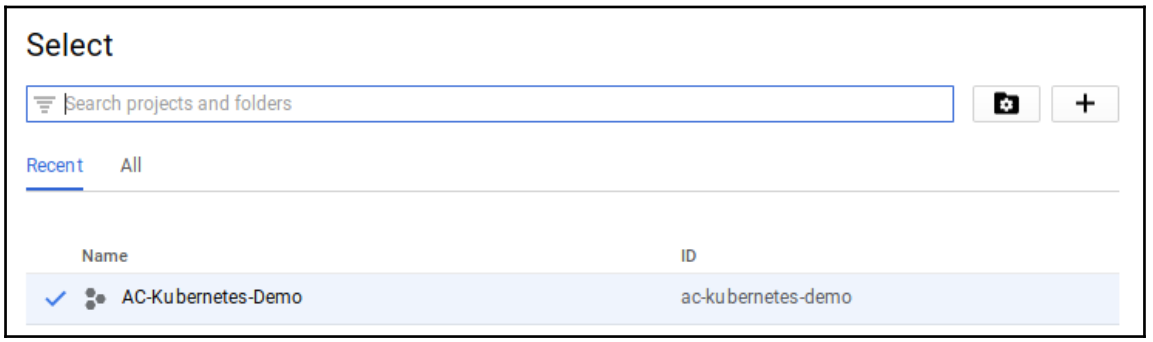


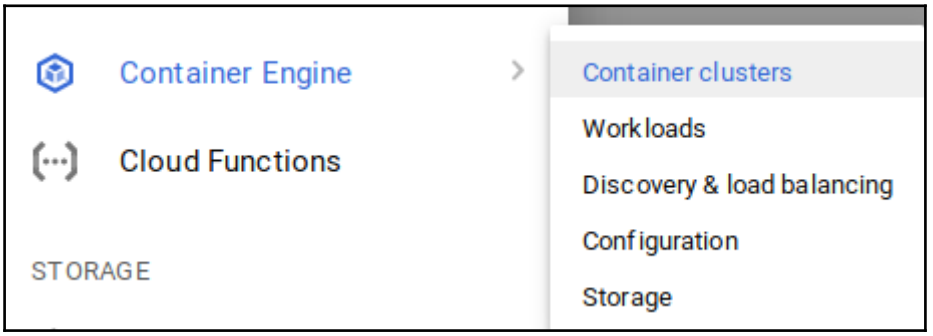
Chapter 3: Your First Ansible Container Project

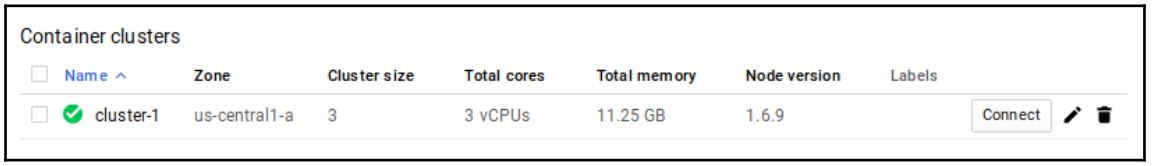




Chapter 5: Containers at Scale with Kubernetes







Connect to the cluster

Configure kubectl command line access by running the following command:

```
$ gcloud container clusters get-credentials cluster-1 --zone us-central1-a --project ac-kubernetes-demo
```

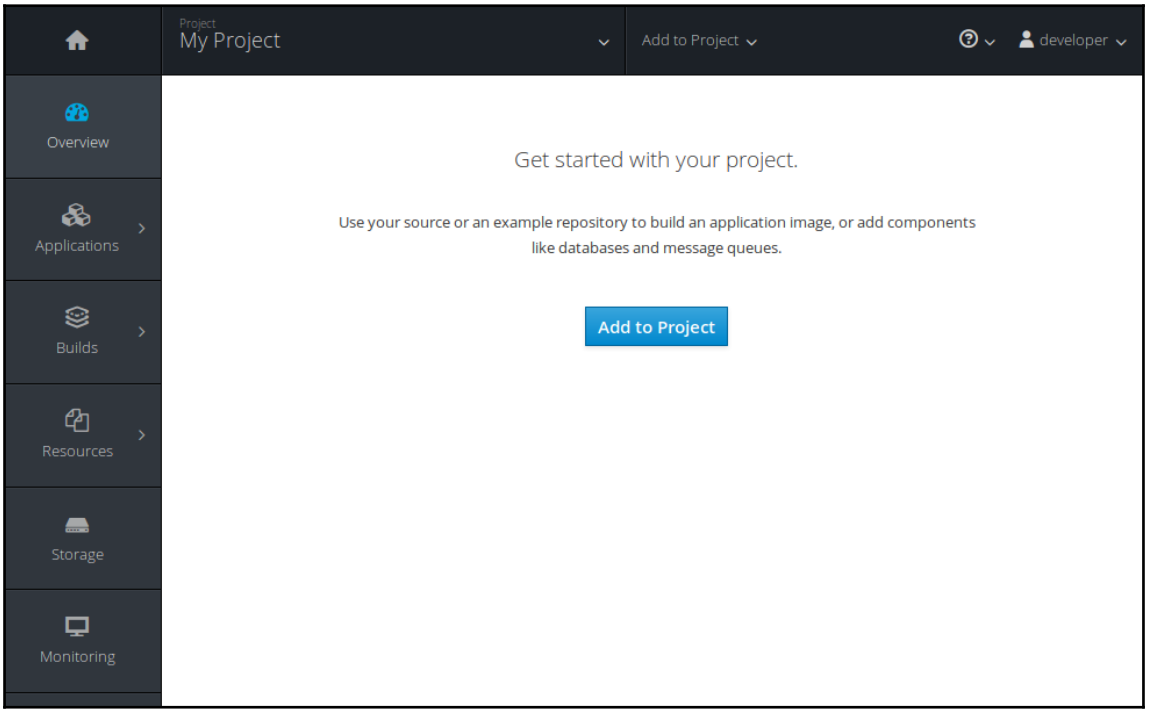
Then start a proxy to connect to the Kubernetes control plane:

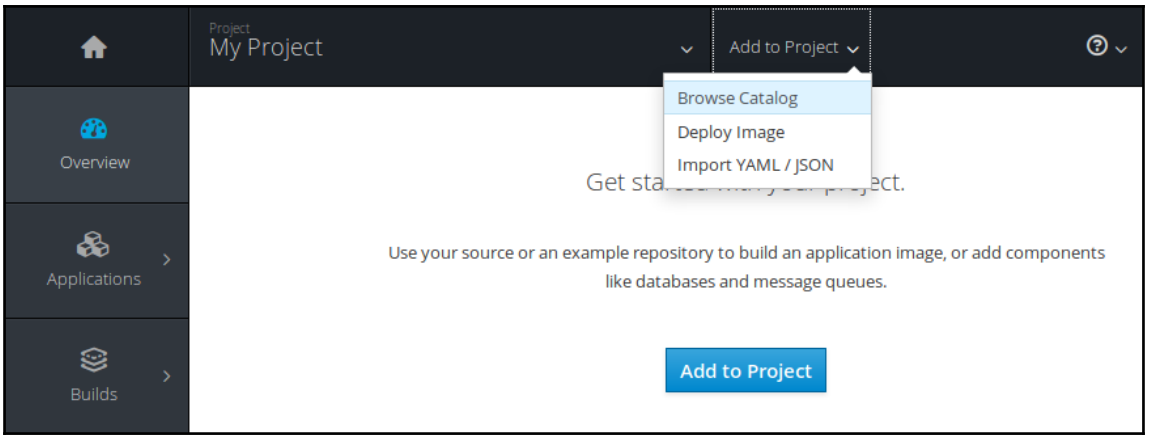
```
$ kubectl proxy
```

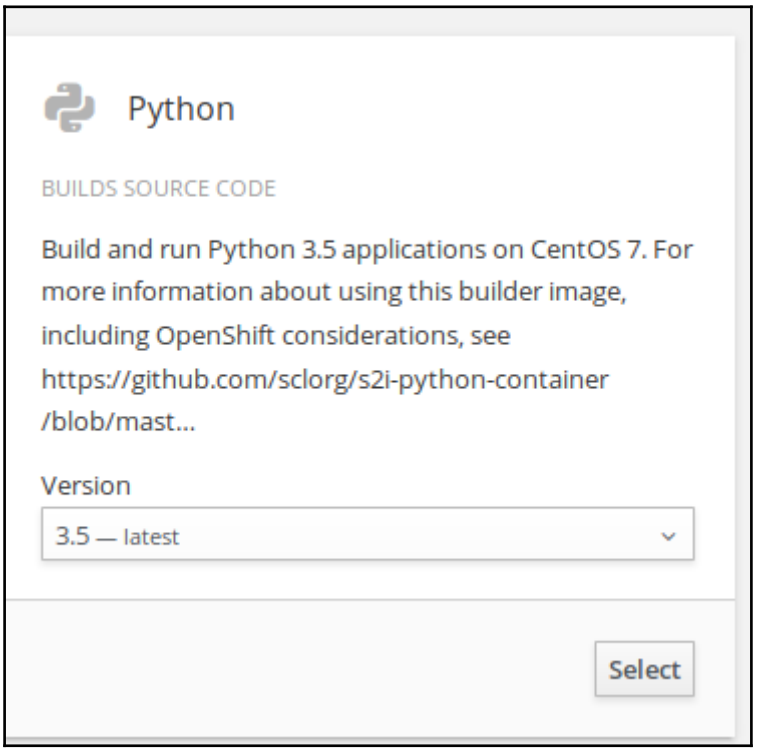
Then open the Dashboard interface by navigating to the following location in your browser:

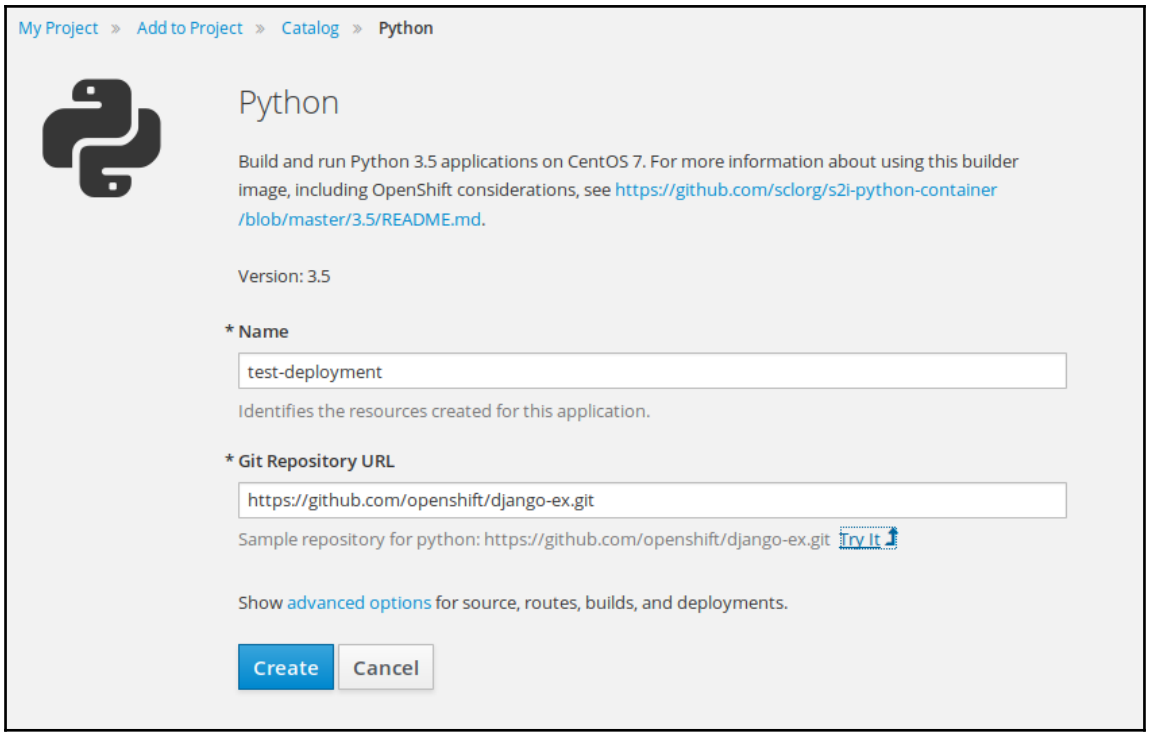
http://localhost:8001/ui

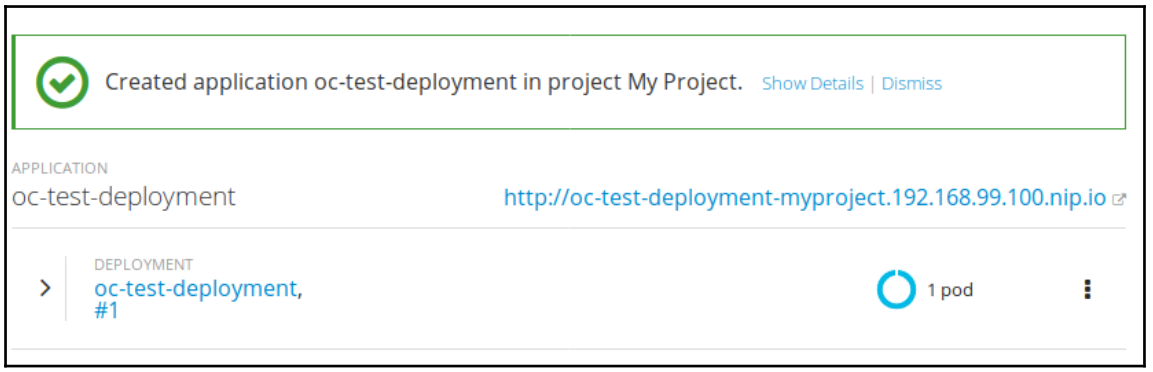
Chapter 6: Managing Containers with OpenShift

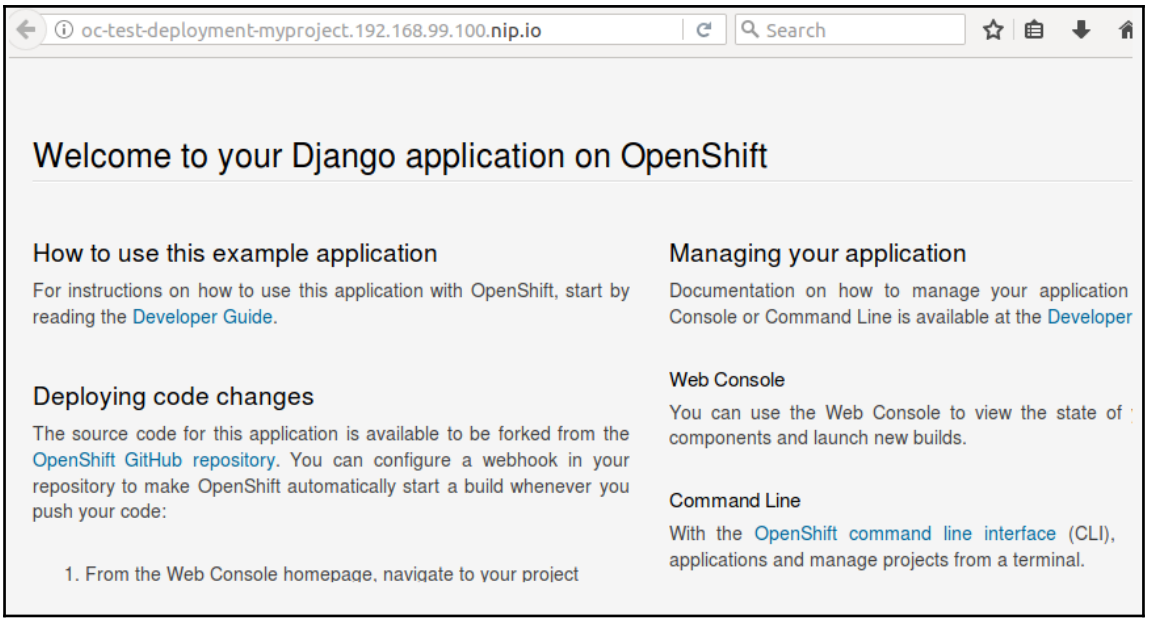


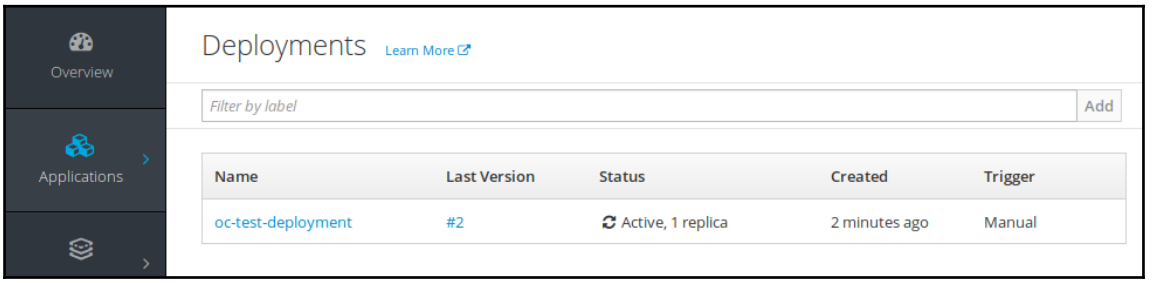

Project
My Project
Add to Project
Browse Catalog
Deploy Image
Import YAML / JSON
Overview
Applications
Builds
Use your source or an example repository to build an application image, or add components like databases and message queues.
Add to Project

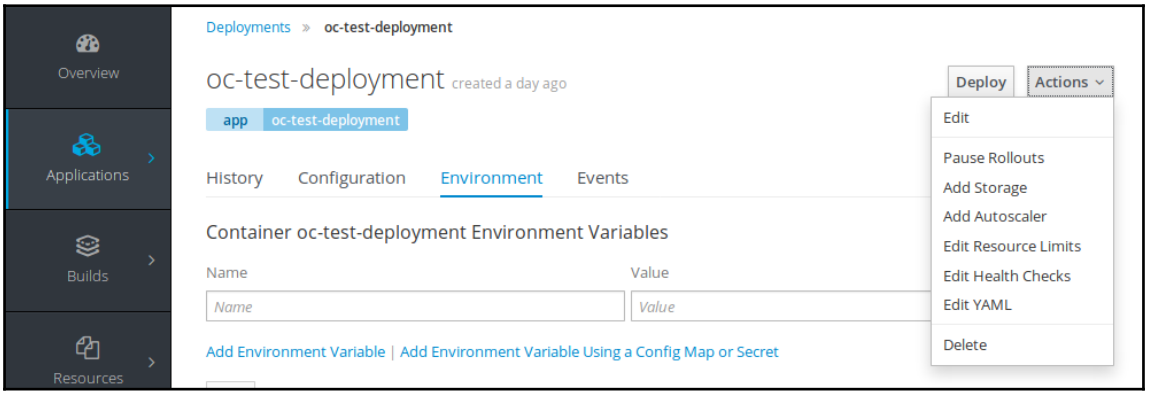

Python
BUILDS SOURCE CODE
Build and run Python 3.5 applications on CentOS 7. For more information about using this builder image, including OpenShift considerations, see https://github.com/sclorg/s2i-python-container /blob/mast...
Version
3.5 — latest
Select

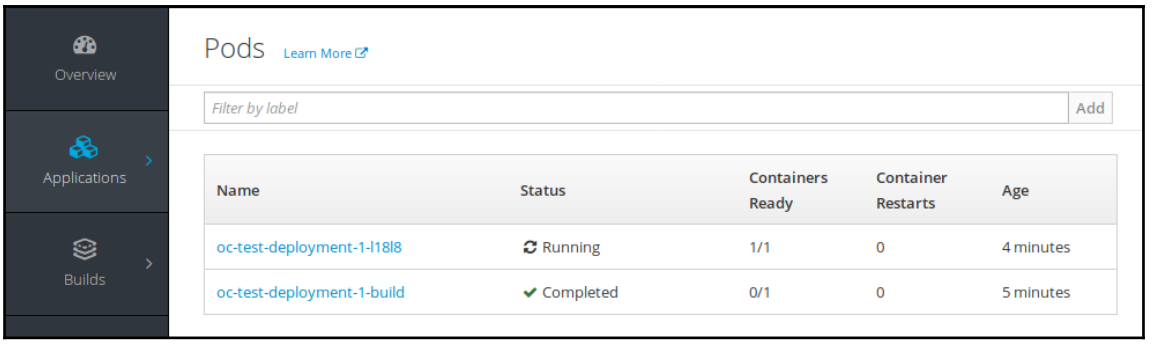

My Project » Add to Project » Catalog » Python
Python
Build and run Python 3.5 applications on CentOS 7. For more information about using this builder image, including OpenShift considerations, see https://github.com/sclorg/s2i-python-container/blob/master/3.5/README.md.
Version: 3.5
* Name
test-deployment
Identifies the resources created for this application.
* Git Repository URL
https://github.com/openshift/django-ex.git
Sample repository for python: https://github.com/openshift/django-ex.git Try It
Show advanced options for source, routes, builds, and deployments.
Create
Cancel

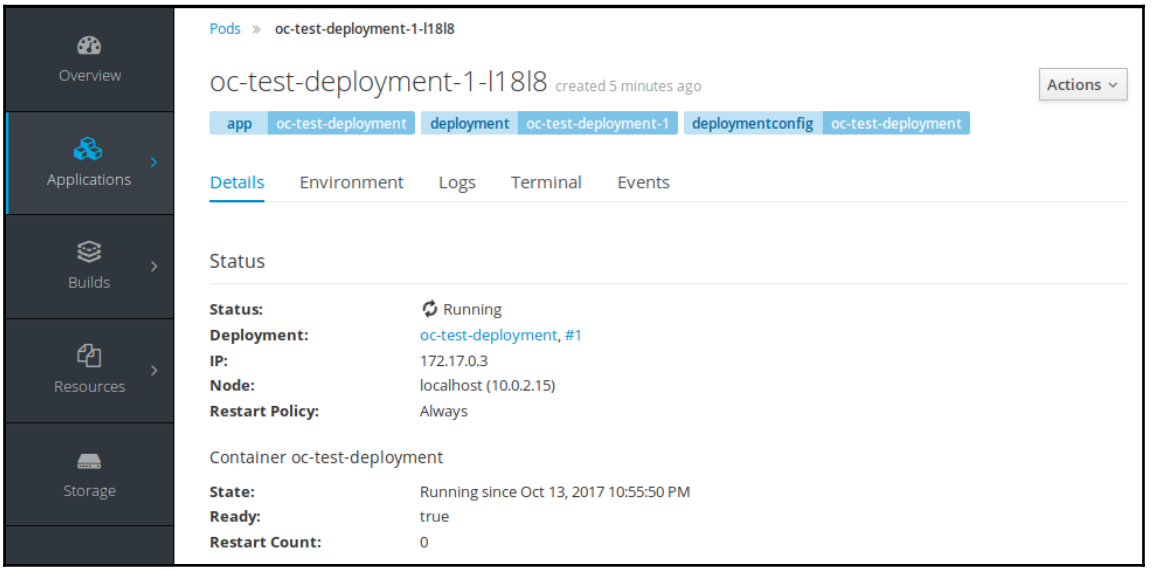

Created application oc-test-deployment in project My Project. Show Details | Dismiss
APPLICATION
oc-test-deployment
http://oc-test-deployment-myproject.192.168.99.100.nip.io
DEPLOYMENT
oc-test-deployment, #1
1 pod

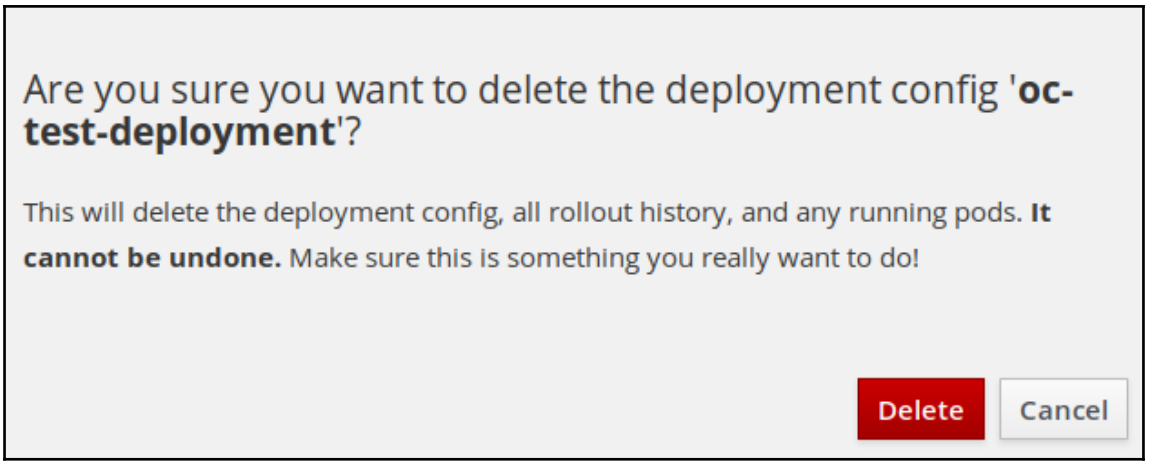

oc-test-deployment-myproject.192.168.99.100.nip.io
Search
Welcome to your Django application on OpenShift
How to use this example application
For instructions on how to use this application with OpenShift, start by reading the Developer Guide.
Deploying code changes
The source code for this application is available to be forked from the OpenShift GitHub repository. You can configure a webhook in your repository to make OpenShift automatically start a build whenever you push your code:
1. From the Web Console homepage, navigate to your project
Managing your application
Documentation on how to manage your application Console or Command Line is available at the Developer
Web Console
You can use the Web Console to view the state of components and launch new builds.
Command Line
With the OpenShift command line interface (CLI), applications and manage projects from a terminal.


Overview
Applications
Deployments
Learn More
Filter by label
Add
Name
Last Version
Status
Created
Trigger
oc-test-deployment
#2
Active, 1 replica
2 minutes ago
Manual


Overview
Applications
Builds
Resources
Deployments » oc-test-deployment
oc-test-deployment created a day ago
app
oc-test-deployment
Deploy
Actions
Edit
Pause Rollouts
Add Storage
Add Autoscaler
Edit Resource Limits
Edit Health Checks
Edit YAML
Delete
History
Configuration
Environment
Events
Container oc-test-deployment Environment Variables
Name
Value
Name
Value
Add Environment Variable | Add Environment Variable Using a Config Map or Secret

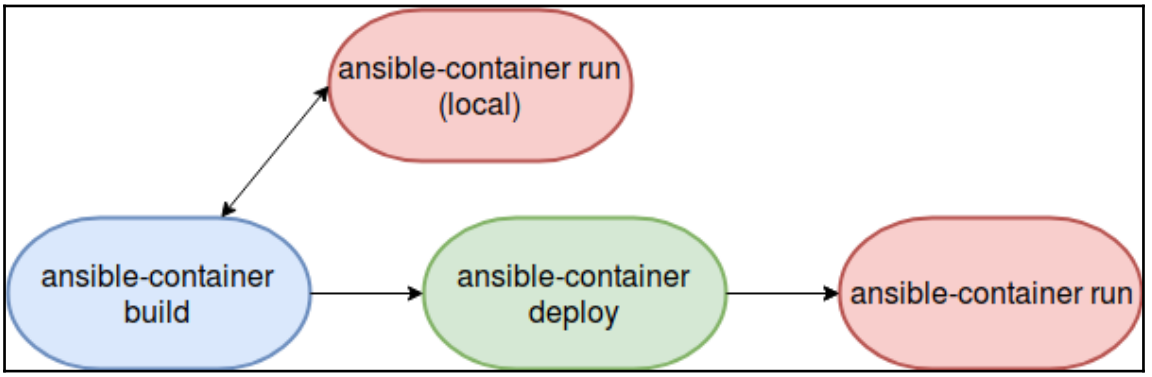

Overview
Applications
Builds
Pods
Learn More
Filter by label
Add
Name
Status
Containers Ready
Container Restarts
Age
oc-test-deployment-1-l18l8
Running
1/1
0
4 minutes
oc-test-deployment-1-build
Completed
0/1
0
5 minutes

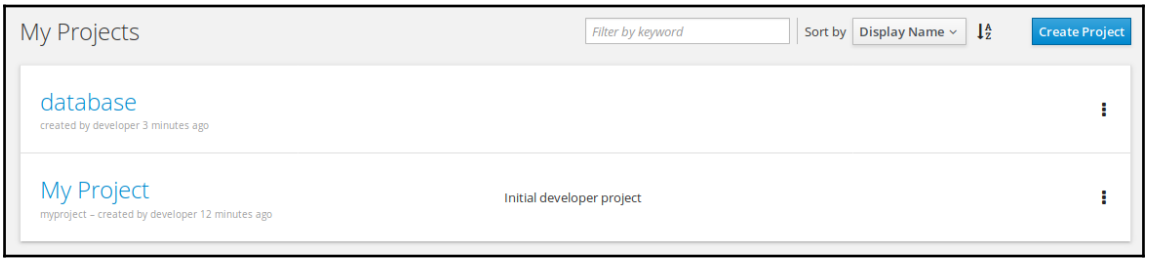

Overview
Applications
Builds
Resources
Storage
Pods » oc-test-deployment-1-l18l8
oc-test-deployment-1-l18l8 created 5 minutes ago
Actions
app oc-test-deployment
deployment oc-test-deployment-1
deploymentconfig oc-test-deployment
Details
Environment
Logs
Terminal
Events
Status
Status: Running
Deployment: oc-test-deployment, #1
IP: 172.17.0.3
Node: localhost (10.0.2.15)
Restart Policy: Always
Container oc-test-deployment
State: Running since Oct 13, 2017 10:55:50 PM
Ready: true
Restart Count: 0

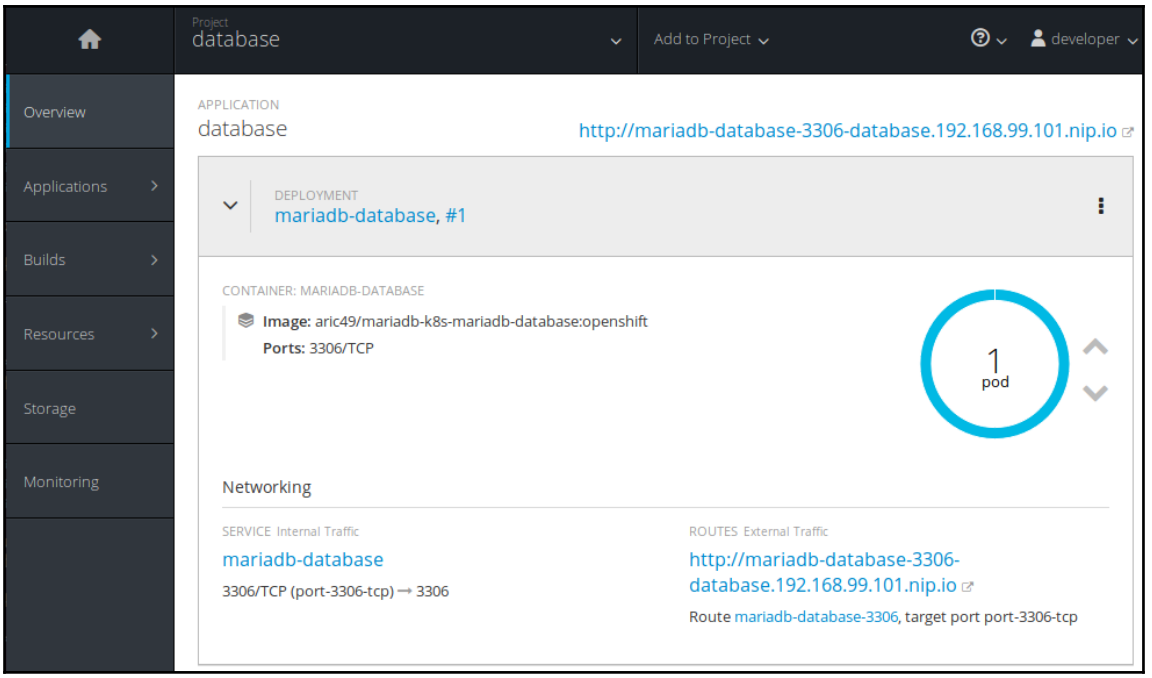

Are you sure you want to delete the deployment config 'oc-test-deployment'?
This will delete the deployment config, all rollout history, and any running pods. It cannot be undone. Make sure this is something you really want to do!
Delete
Cancel


awesomewebapp.192.168.99.100.nip.io
Search
Welcome to nginx!
If you see this page, the nginx web server is successfully installed and working.
Further configuration is required.
For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.
Thank you for using nginx.

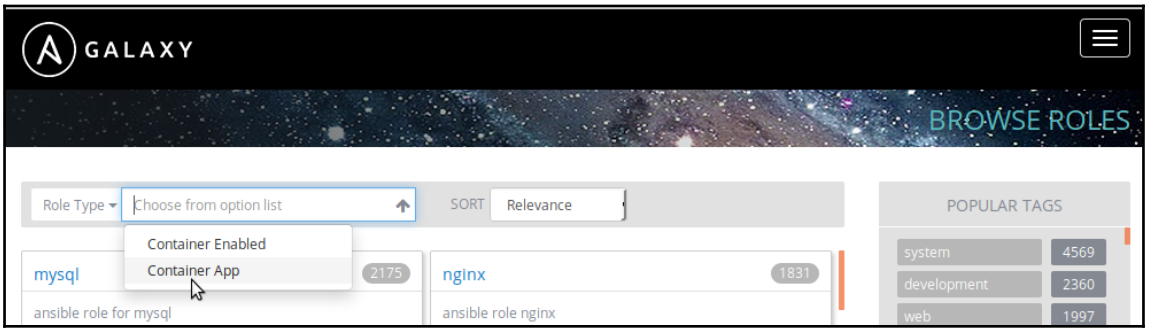
Chapter 7: Deploying Your First Project

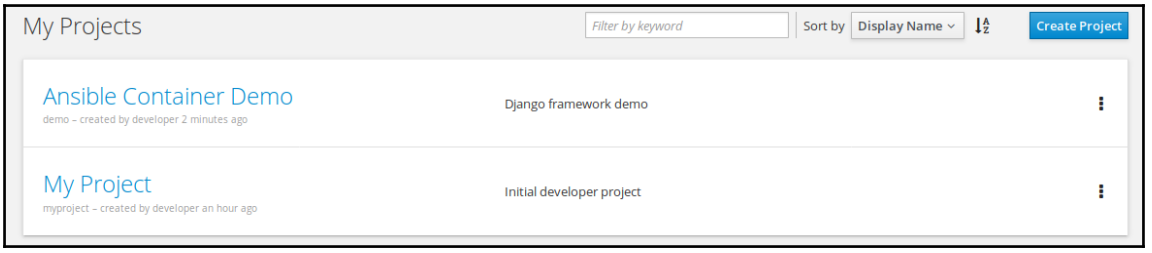


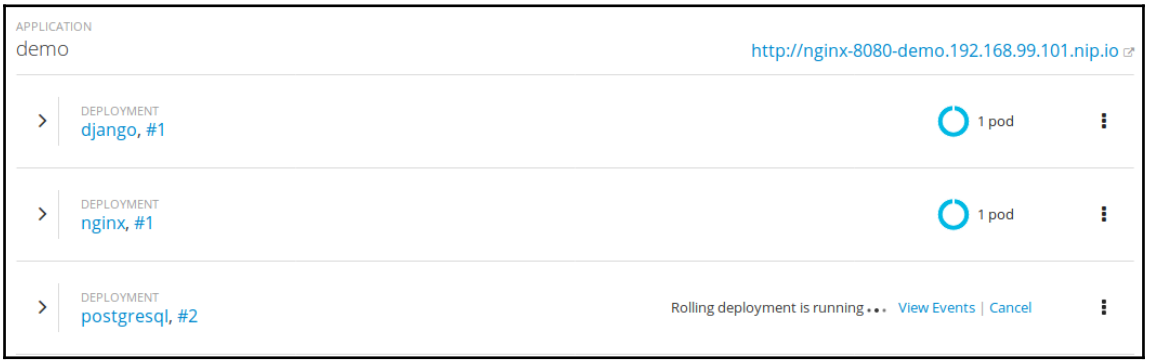


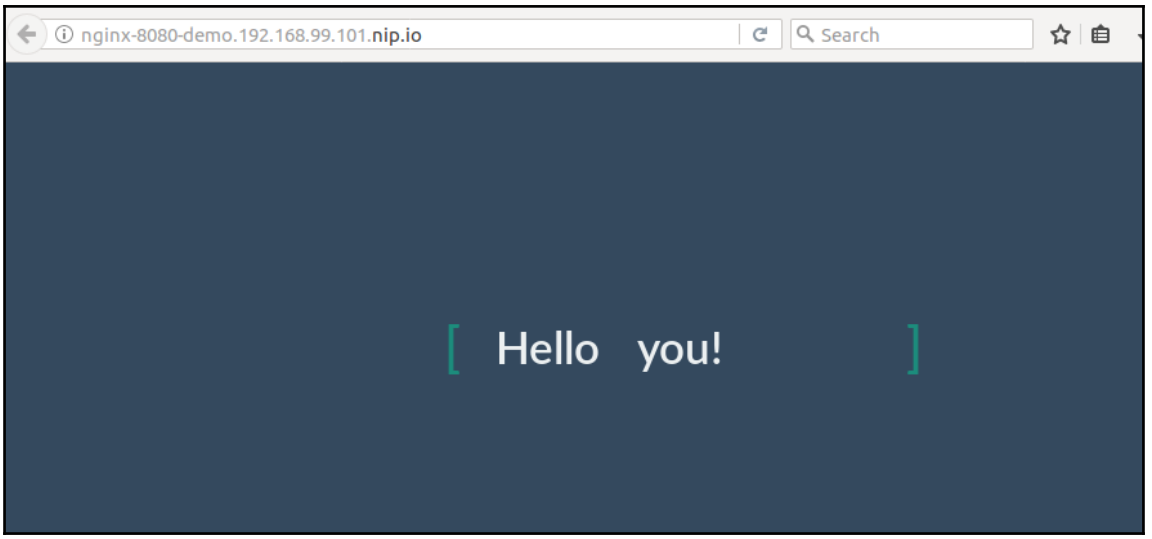

Project
database
Add to Project
developer
Overview
Applications
Builds
Resources
Storage
Monitoring
APPLICATION
database
http://mariadb-database-3306-database.192.168.99.101.nip.io
DEPLOYMENT
mariadb-database, #1
CONTAINER: MARIADB-DATABASE
Image: aric49/mariadb-k8s-mariadb-database:openshift
Ports: 3306/TCP
1
pod
Networking
SERVICE Internal Traffic
mariadb-database
3306/TCP (port-3306-tcp) → 3306
ROUTES External Traffic
http://mariadb-database-3306-database.192.168.99.101.nip.io
Route mariadb-database-3306, target port port-3306-tcp

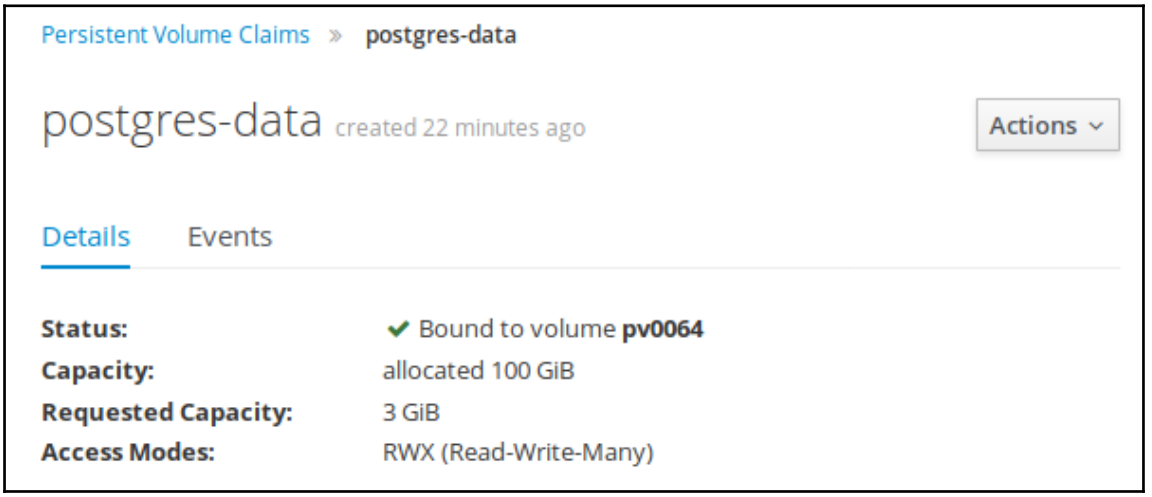
Chapter 8: Building and Deploying a Multi-Container Project



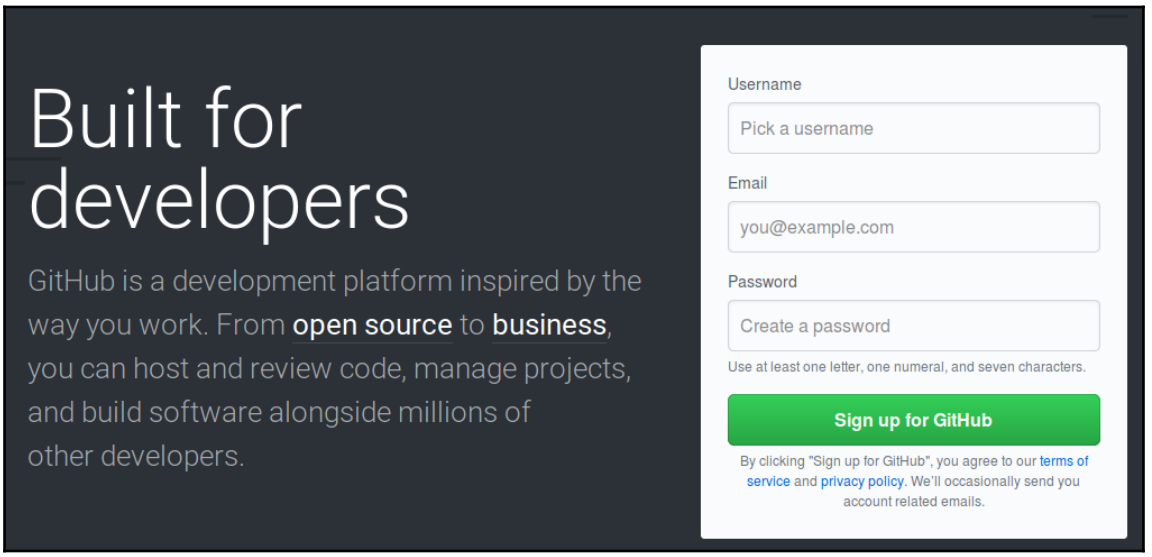


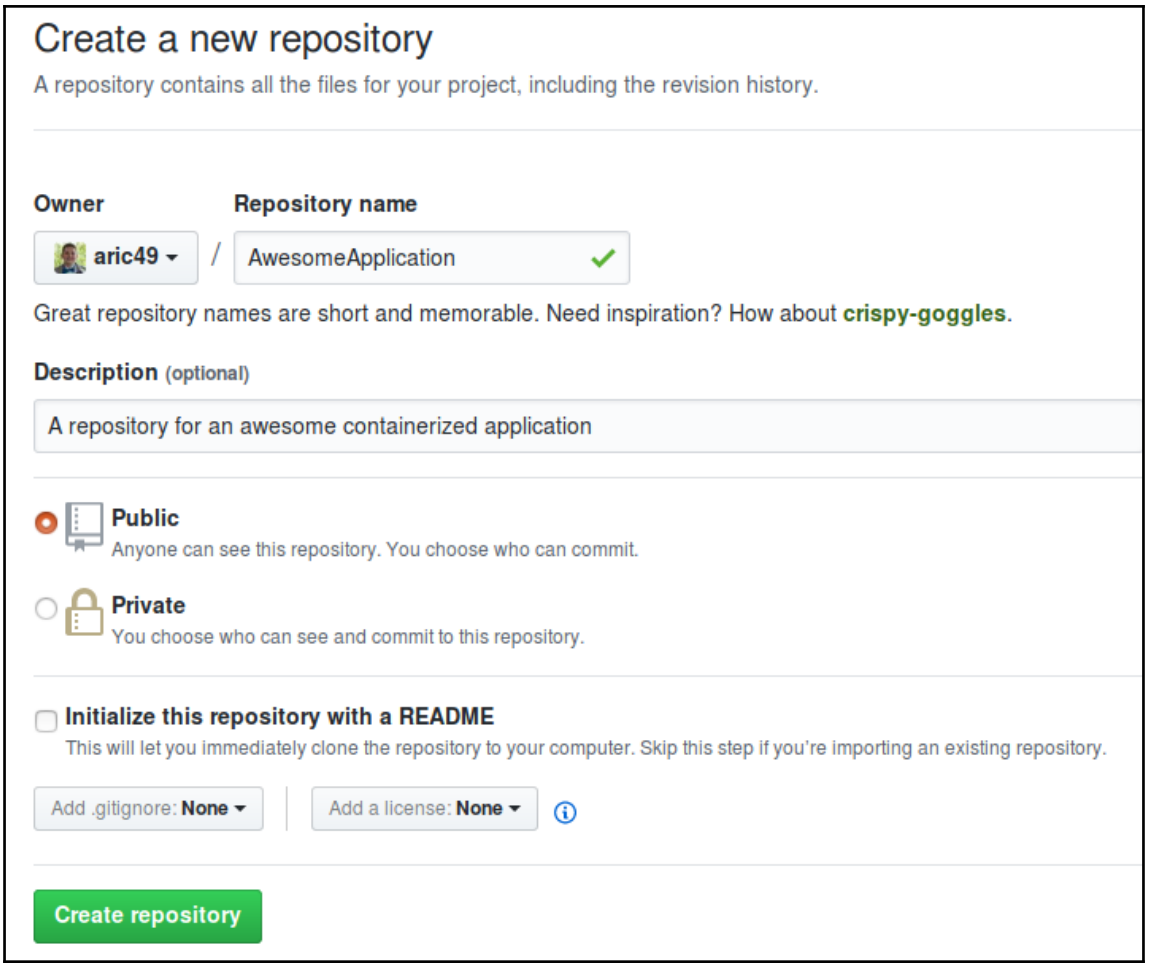


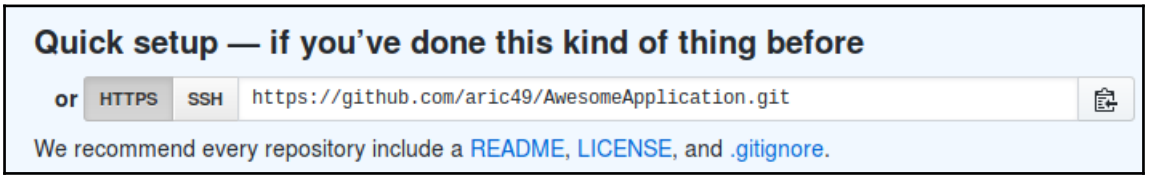

nginx-8080-demo.192.168.99.101.nip.io
Search
[Hello you!]


Persistent Volume Claims » postgres-data
postgres-data created 22 minutes ago
Actions
Details
Events
Status: Bound to volume pv0064
Capacity: allocated 100 GiB
Requested Capacity: 3 GiB
Access Modes: RWX (Read-Write-Many)

Chapter 9: Going Further with Ansible Container




Create a new repository
A repository contains all the files for your project, including the revision history.
Owner
Repository name
aric49
/
AwesomeApplication
Great repository names are short and memorable. Need inspiration? How about crispy-goggles.
Description (optional)
A repository for an awesome containerized application
Public
Anyone can see this repository. You choose who can commit.
Private
You choose who can see and commit to this repository.
Initialize this repository with a README
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.
Add .gitignore: None
Add a license: None
Create repository


Quick setup — if you've done this kind of thing before
or
HTTPS
SSH
https://github.com/aric49/AwesomeApplication.git
We recommend every repository include a README, LICENSE, and .gitignore.