

# Guided Exercise: Navigate the OpenShift Web Console

Access an OpenShift cluster by using its web console and review pages to identify key OpenShift cluster services.

## Outcomes

- Explore the features and components of Red Hat OpenShift by using the web console.
- Create a sample application by using the Developer perspective in the web console.
- Switch to the Administrator perspective and examine the resources that are created for the sample application.
- Use the web console to describe the cluster nodes, networking, storage, and authentication.
- View the default cluster operators, pods, deployments, and services.

As the student user on the workstation machine, use the `lab` command to prepare your system for this exercise.

This command ensures that the cluster is validated for the exercise.

```
[student@workstation ~]$ lab start intro-navigate
```

## Instructions

1. As the developer user, locate and go to the Red Hat OpenShift web console.

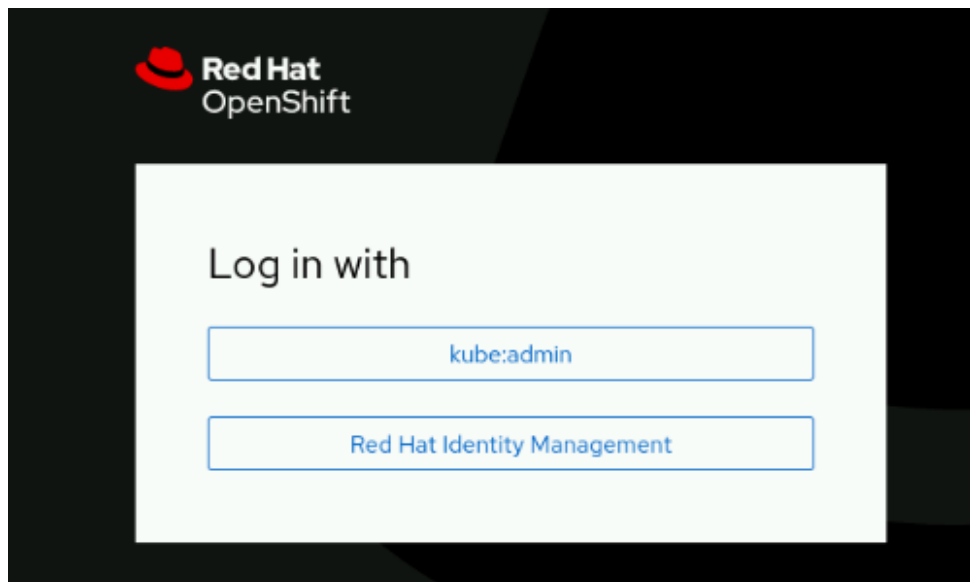
Use the terminal to log in to the OpenShift cluster as the developer user with the developer password.

```
[student@workstation ~]$ oc login -u developer -p developer \
https://api.ocp4.example.com:6443
...output omitted...
```

Identify the URL for the OpenShift web console.

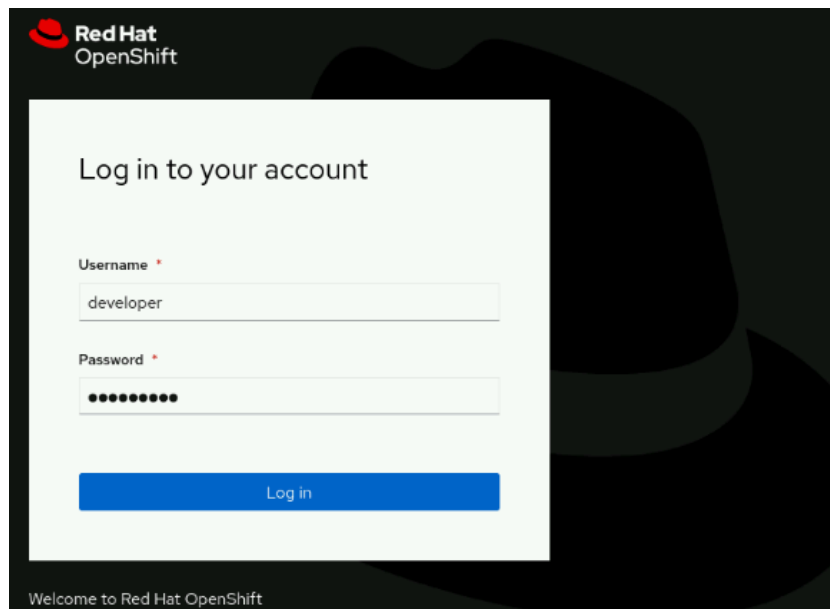
```
[student@workstation ~]$ oc whoami --show-console
https://console-openshift-console.apps.ocp4.example.com
```

Open a web browser and go to <https://console-openshift-console.apps.ocp4.example.com>.

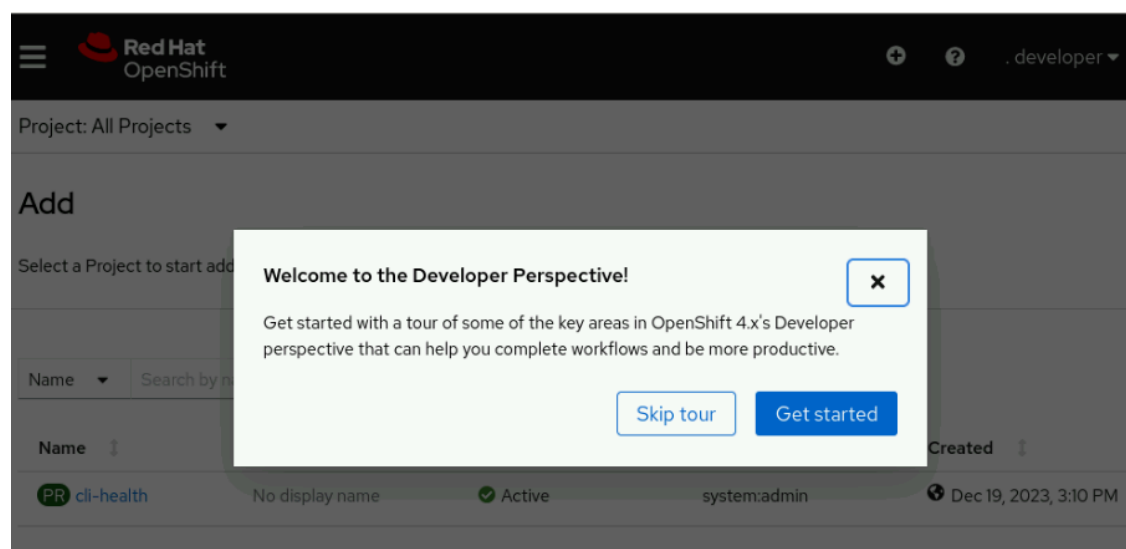


2. Log in to the OpenShift web console as the developer user.

Click **Red Hat Identity Management** and log in as the developer user with the developer password.

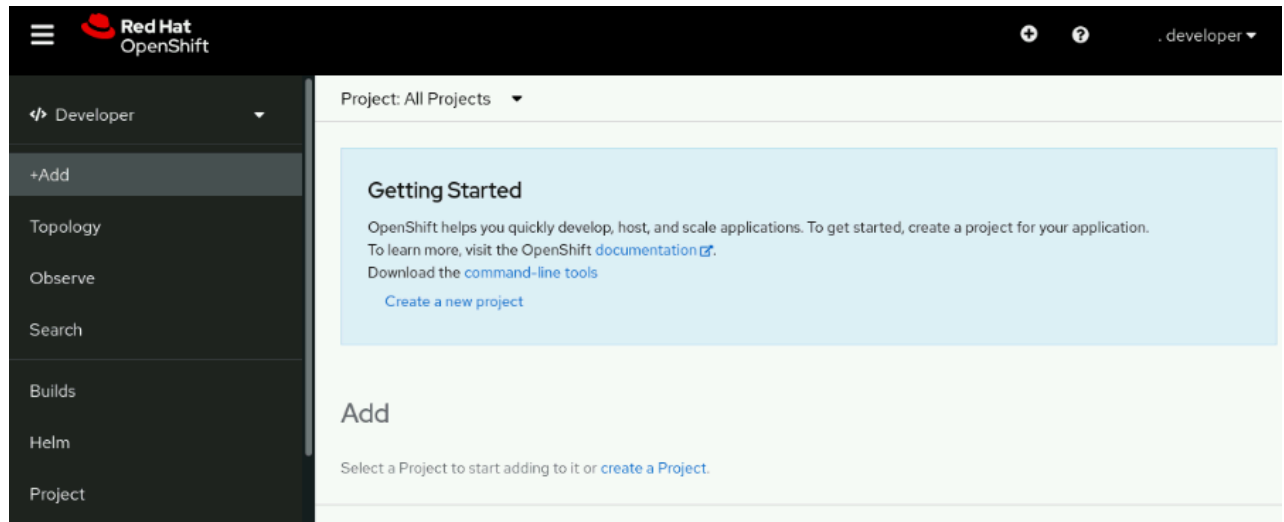
**NOTE**

Click **Skip Tour** to dismiss the option to view a short tour on the first visit.



3. Use the Developer perspective of the web console to create your first project.

From the Getting started section in the **+Add** page, click **Create a new project** to open the Create Project wizard.

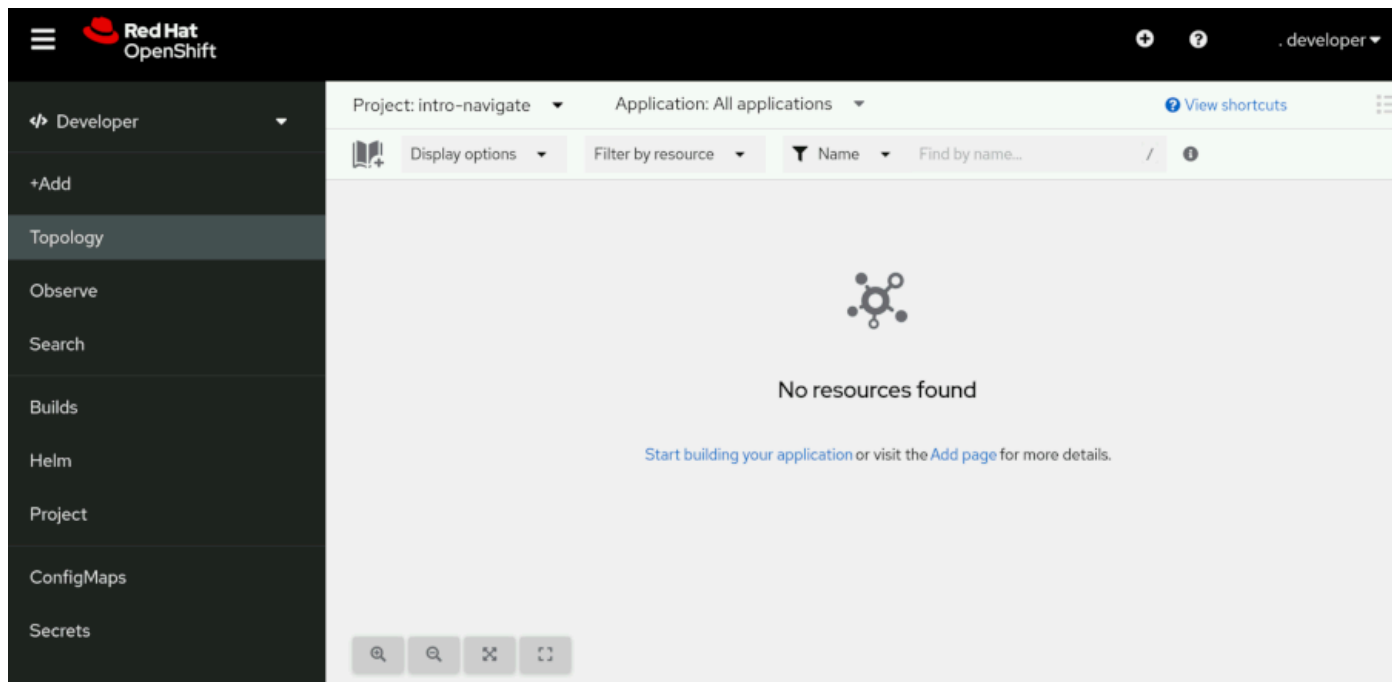


Create a project named intro-navigate by using the wizard. Use intro-navigate for the display name, and add a brief description of the project.

The 'Create Project' form is displayed on a light green background. It includes a title 'Create Project', a subtitle 'An OpenShift project is an alternative representation of a Kubernetes namespace.', and a link 'Learn more about working with projects'. There are three input fields: 'Name' (with a red asterisk and a help icon), 'Display name', and 'Description'. The 'Name' and 'Display name' fields both contain the text 'intro-navigate'. The 'Description' field contains the text 'Project for the intro-navigate exercise'. At the bottom right are 'Cancel' and 'Create' buttons.

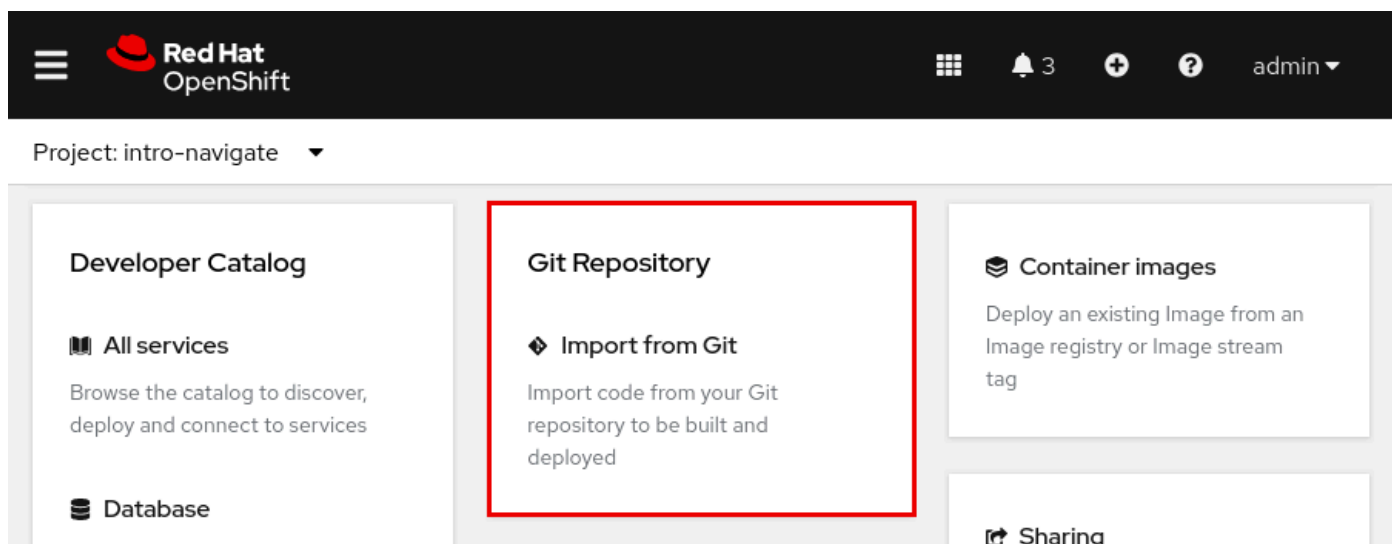
Click **Create** to create the project.

Click **Topology** to view the project.



4. Deploy a sample application in the project.

Select the **+Add** page. Select the **Import from Git** panel.



Enter <https://git.ocp4.example.com/developer/intro-navigate.git> into the Git Repo URL field and select GitLab for the Git type field. Click **Create** to start the deployment.

Red Hat OpenShift
+
?
developer ▾

Project: intro-navigate ▾
Application: All applications ▾

## Import from Git

### Git

Git Repo URL \*

https://git.ocp4.example.com/developer/intro-navigate.git
✓

Validated

Git type \*

GitHub

GitLab

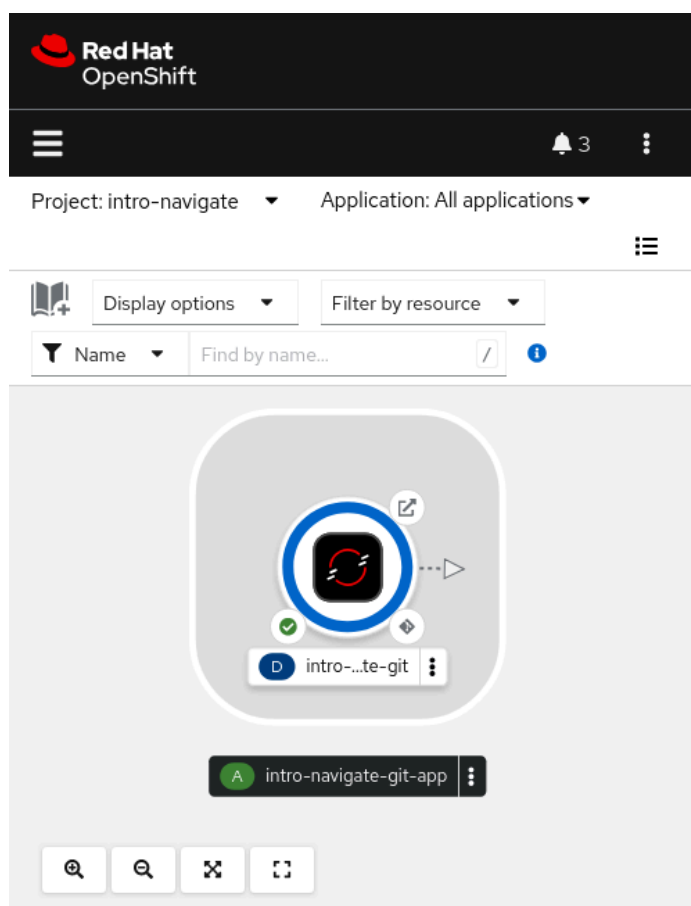
Bitbucket

Gitea

Other

Create
Cancel

The Topology page opens and displays the intro-navigate-git-app application deployment.



- View the deployment details for the intro-navigate-git-app application.

Click **D** to display the deployment in the right panel. Click **Details** in the panel. Wait, for several minutes if needed, for the details page to show one pod deployed.

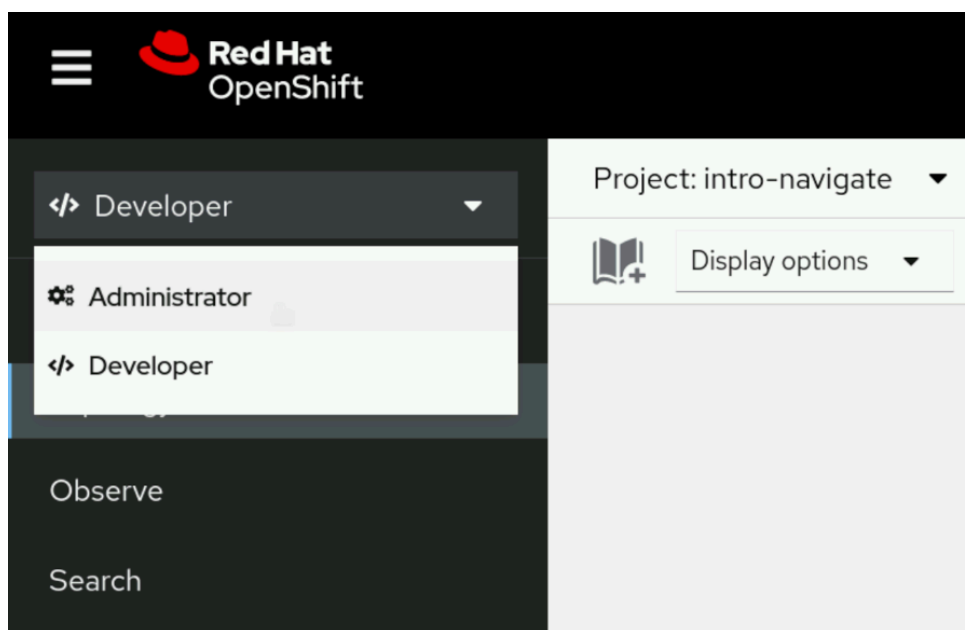
The screenshot shows the Red Hat OpenShift console interface. The top navigation bar includes the Red Hat logo, a hamburger menu, and the user 'developer'. Below the navigation bar, the breadcrumb shows 'Project: intro-navigate' and 'Application: All applications'. A search bar and filter options are present. The main content area is split into two panels. The left panel shows a cluster overview with a deployment icon labeled 'D intro-...te-git' and a service icon labeled 'A intro-navigate-git-app'. The right panel shows the details for the 'intro-navigate-git' deployment, with tabs for 'Details', 'Resources', and 'Observe'. The 'Details' tab is selected, showing a circular progress indicator with '1 Pod' and the name 'intro-navigate-git'.

Select the **Actions** list to view the available controls for the deployment.

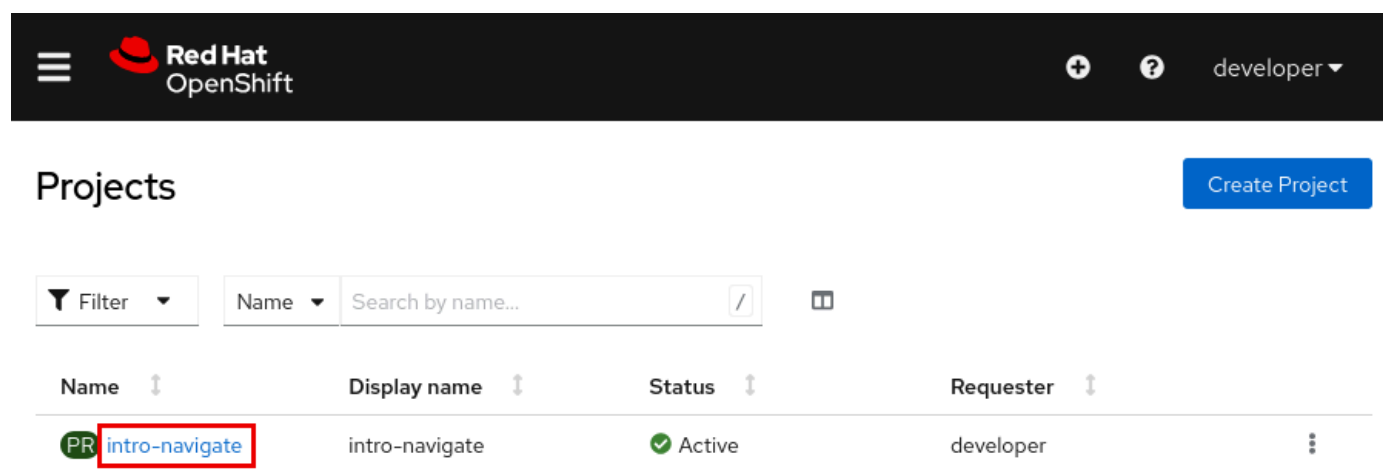
This screenshot shows the same Red Hat OpenShift console interface, but with the 'Actions' dropdown menu open for the 'intro-navigate-git' deployment. The menu lists various actions such as 'Edit application grouping', 'Edit Pod count', 'Add HorizontalPodAutoscaler', 'Add PodDisruptionBudget', 'Pause rollouts', 'Restart rollout', 'Add Health Checks', 'Add storage', 'Edit update strategy', 'Edit resource limits', 'Edit labels', and 'Edit annotations'. The 'intro-navigate-git' deployment details are visible in the background, showing '1 Pod' and the name 'intro-navigate-git'.

- Switch into the Administrator perspective and inspect the deployment.

From the OpenShift web console, locate the left panel. If you do not see the left panel, then click the main menu icon at the upper left of the web console. Click **Developer** and then click **Administrator** to change to the Administrator perspective. The web console changes to the new perspective and exposes additional information through the sidebar.



Select the **Home** → **Projects** page from the left panel. Select the **intro-navigate** project to open the Project Details page.




This page includes a general overview of the project, such as the project status and resource usage details.

#### NOTE

You can ignore image stream import warnings because the image streams are not available in the classroom cluster.

- View the **intro-navigate** pods and deployment.

From the OpenShift web console menu, go to **Workloads** → **Pods** to view the **intro-navigate** pods.



developer

Project: intro-navigate







## Pods

Create Pod


Filter

Name

Search by name...

Name	Status	Ready	Restarts	
 intro-navigate-git-1-build	 Completed	0/1	0	
 intro-navigate-git-5b9f95f4f4-92gq5	 Running	1/1	0	

Go to [Workloads](#) → [Deployments](#) to view the list of deployments in the project.



developer



Project: intro-navigate

## Deployments

Create Deployment


Name

Search by name...

Name	Status	
 intro-navigate-git	1 of 1 pods	

Click the [intro-navigate-git](#) link to view the deployment details.





developer ▾

Project: intro-navigate ▾

[Deployments](#) ▸ Deployment details

D

 intro-navigate-git 

Actions ▾

Details

Metrics

YAML

ReplicaSets

Pods

Environment

Events

Deployment details

1 Pod

^

v

Name

intro-navigate-git

Update strategy

RollingUpdate

Namespace

NS


 intro-navigate

Max unavailable

25% of 1 pod

8. View the intro-navigate service and route.

Go to **Networking** → **Services** and click **intro-navigate-git** to view the details of the intro-navigate service.



developer ▾

Project: intro-navigate ▾

Services 

Create Service

Name ▾

Search by name...

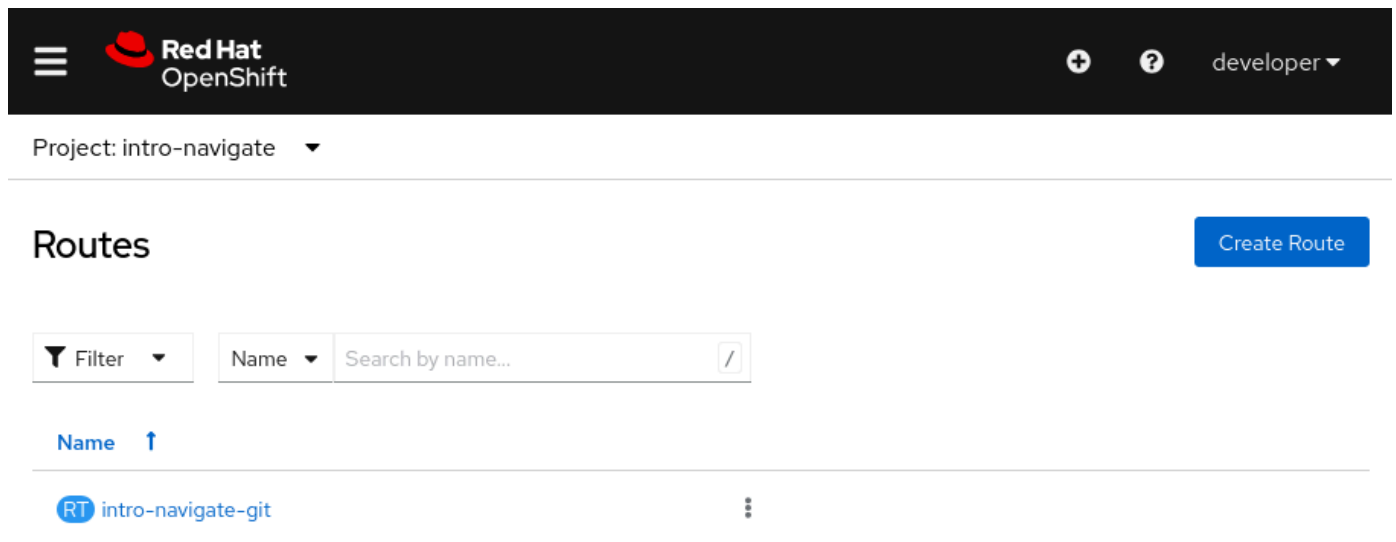
/

Name ↑

S

 intro-navigate-git

Go to **Networking** → **Routes** and click **intro-navigate-git** to view the details of the intro-navigate route.



The image shows the OpenShift web console header with the Red Hat logo and 'OpenShift' text. The user is logged in as 'developer'. Below the header, the 'Project: intro-navigate' is selected. The main section is titled 'Routes' and includes a 'Create Route' button. A filter section shows 'Name' and a search box. A table lists routes, with 'intro-navigate-git' visible.

Project: intro-navigate

## Routes

Create Route

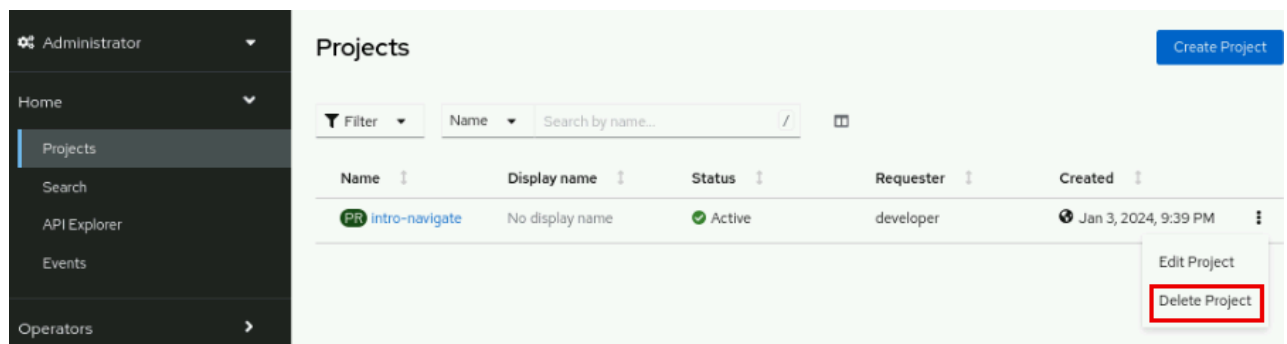
Filter Name Search by name...

Name ↑

RT intro-navigate-git	
-----------------------	--

9. Delete the project and log out of the web console.

From the OpenShift web console menu, go to **Home** → **Projects**. Select **Delete Project** from the context menu for the **intro-navigate** project.



The image shows the 'Projects' page in the OpenShift web console. The left sidebar has 'Projects' selected. The main area shows a table of projects. The 'intro-navigate' project is listed with status 'Active'. A context menu is open for this project, showing 'Edit Project' and 'Delete Project' (highlighted with a red box).

Administrator

Home

Projects

Search

API Explorer

Events

Operators

## Projects

Create Project

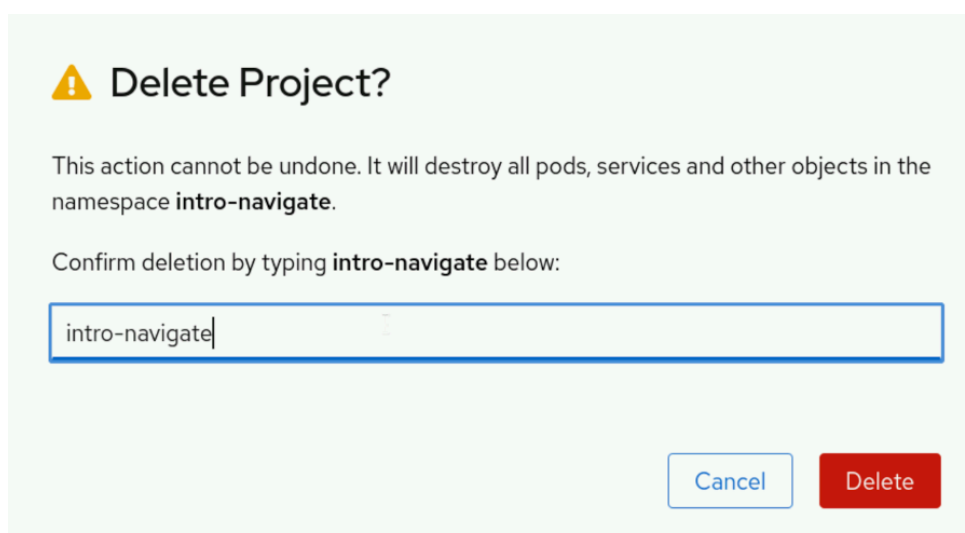
Filter Name Search by name...

Name	Display name	Status	Requester	Created
PR intro-navigate	No display name	Active	developer	Jan 3, 2024, 9:39 PM

Edit Project

Delete Project

Enter the project name in the text field and then select **Delete**.



The image shows a 'Delete Project?' confirmation dialog. It contains a warning icon, the title 'Delete Project?', and a message stating that the action cannot be undone and will destroy all pods, services, and other objects in the namespace 'intro-navigate'. It asks the user to confirm deletion by typing 'intro-navigate' in a text field. The text 'intro-navigate' is already entered in the field. At the bottom, there are 'Cancel' and 'Delete' buttons.

### Delete Project?

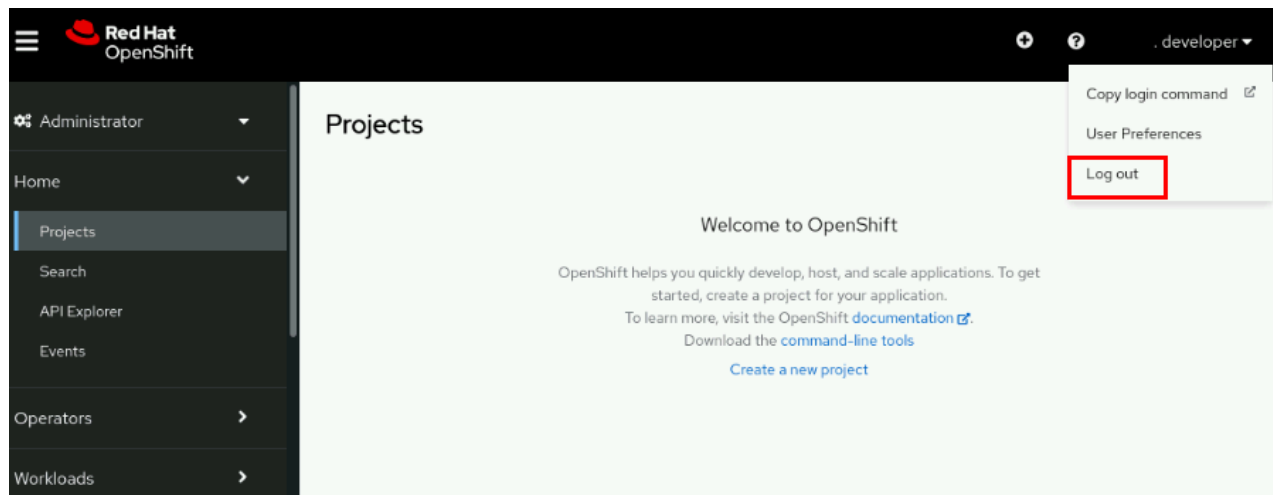
This action cannot be undone. It will destroy all pods, services and other objects in the namespace **intro-navigate**.

Confirm deletion by typing **intro-navigate** below:

intro-navigate

Cancel Delete

Log out of the web console. From the OpenShift web console right panel, click **developer** and then select **Log out** from the account menu.

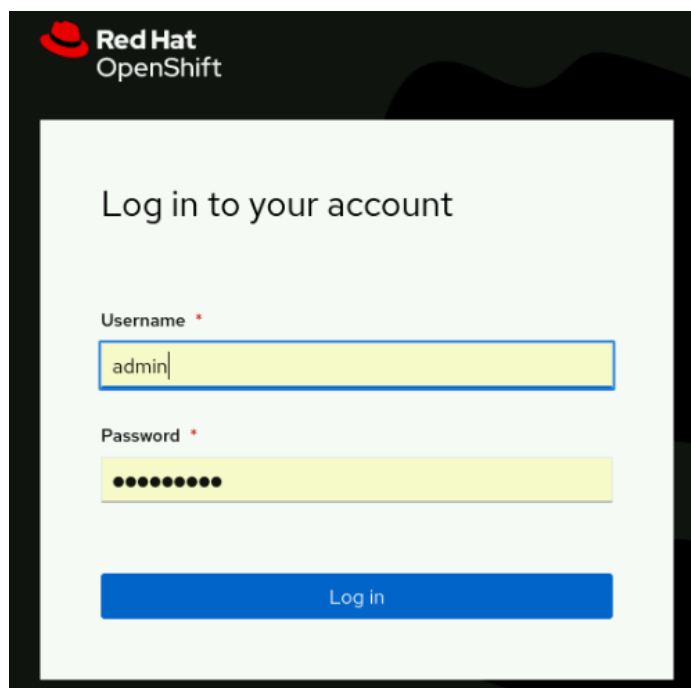


10. Log in to the OpenShift web console as the admin user to inspect additional cluster details.

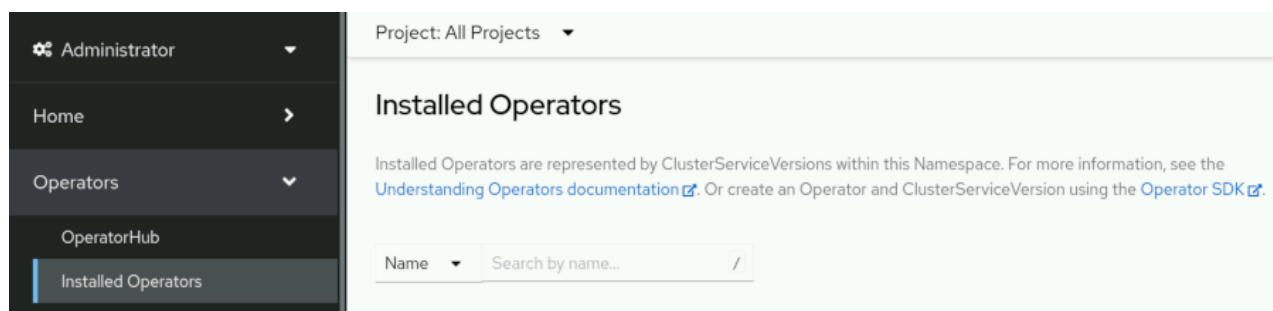
#### NOTE

When you use a cluster administrator account, you can browse the cluster components, but do not alter or remove any components.

Log in to the web console. Select **Red Hat Identity Management** and then enter the admin username and the redhatocp password.



From the OpenShift web console menu, go to **Operators** → **Installed Operators**. Each operator provides a specific function for the cluster. Select an individual operator to display its details.



Go to **Workloads** → **Pods** to view the list of all pods in the cluster. The search bar at the top can narrow down the list of pods. Select an individual pod to display its details.

Administrator

Home

Operators

Workloads

Pods

Deployments

DeploymentConfigs

StatefulSets

Secrets

Project: All Projects

Pods

Filter

Name

Search by name...

Name	Names...	Status	Ready	Restarts	Owner	Memory	CPU
<div>P</div> <div>8f0613a2d1af29fbaaee5245b9316cc5db08e8a5c065195008eb316e63pr2vp</div>	<div>NS</div> <div>openshift-marketplace</div>	<div>✔</div> <div>Completed</div>	0/1	0	<div>J</div> <div>8f0613a2d1af29fbaaee5245b9316cc5db08e8a5c065195008eb316e63b6c02</div>	-	-

Go to **Workloads** → **Deployments** to view the list of all deployments in the cluster. Select an individual deployment to display its details.

Administrator

Home

Operators

Workloads

Pods

Deployments

DeploymentConfigs

StatefulSets

Secrets

ConfigMaps

CronJobs

Jobs

Project: All Projects

Deployments

Create Deployment

Name

Search by name...

Name	Namespace	Status	Labels	Pod selector
apiserver	openshift-oauth-apiserver	1 of 1 pods	<div>apiserver=true</div> <div>a...=openshift-oauth-ap...</div> <div>revision=1</div>	<div> apiserver=true, app=openshift-oauth-apiserver</div> <div></div>
apiserver	openshift-apiserver	1 of 1 pods	<div>apiserver=true</div> <div>app=openshift-apiserver</div> <div>revision=1</div>	<div> apiserver=true, app=openshift-apiserver-a</div> <div></div>
authentication-operator	openshift-authentication-operator	1 of 1 pods	<div>a...=authentication-ope...</div>	<div> app=authentication-operator</div> <div></div>

Go to **Networking** → **Services** to view the list of all services in the cluster. Select an individual service to display its details.

Administrator

Home

Operators

Workloads

Networking

Services

Routes

Ingresses

NetworkPolicies



Project: All Projects

Services

Create Service

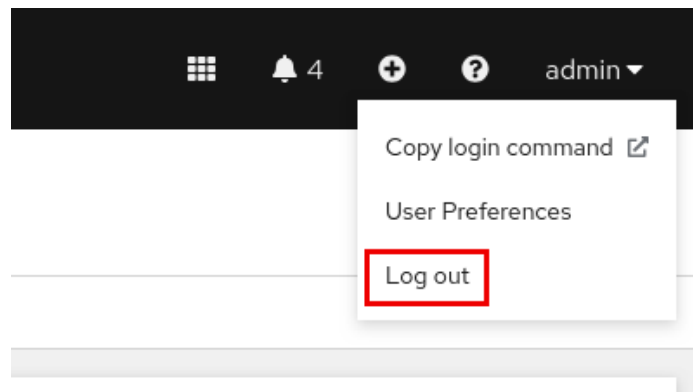
Name

Search by name...

Name	Namespace	Labels	Pod selector	Location
 alertmanager-main	 openshift-monitoring	<div>app.kubernetes.io/name=alertmanager</div> <div>app.kubernetes.io/component=alertmanager</div> <div>app.kubernetes.io/instance=cluster</div> <div>app.kubernetes.io/part-of=openshift-monitoring</div>	<div>app.kubernetes.io/name=alertmanager</div> <div>app.kubernetes.io/component=alertmanager</div> <div>app.kubernetes.io/instance=cluster</div> <div>app.kubernetes.io/part-of=openshift-monitoring</div>	<div>172.30.124.93:9094</div> <div>172.30.124.93:9092</div> <div>172.30.124.93:9097</div>

11. Log out of the web console.

Log out of the web console. From the OpenShift web console right panel, click **admin** and select **Log out** from the account menu.



## Finish

On the workstation machine, use the `lab` command to complete this exercise. This step is important to ensure that resources from previous exercises do not impact upcoming exercises.

```
[student@workstation ~]$ lab finish intro-navigate
```