

OpenShift.

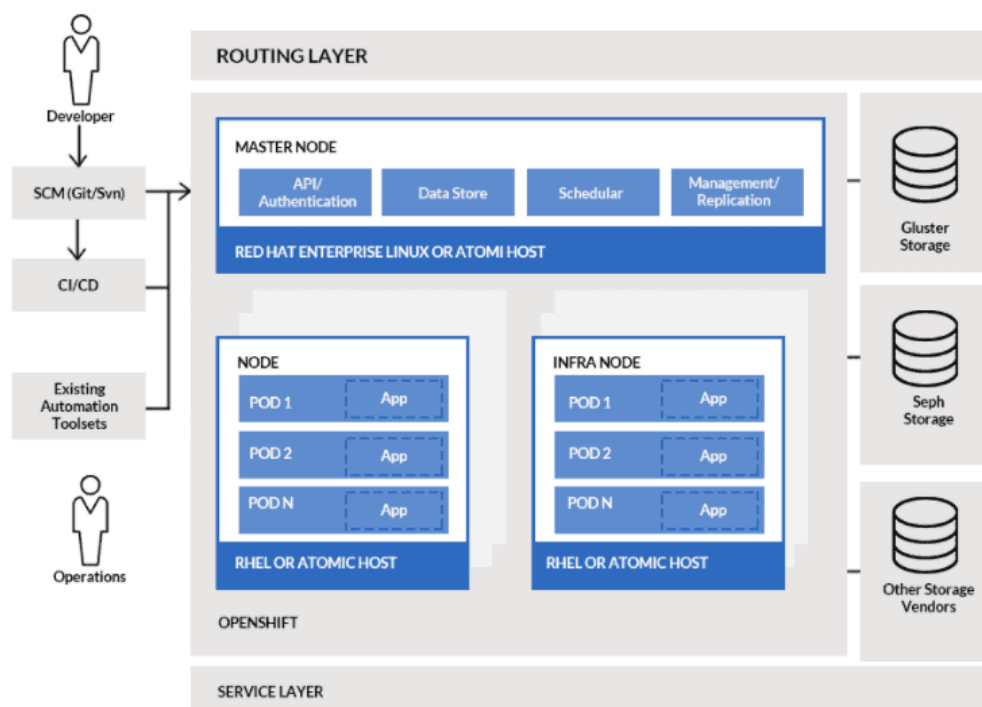
OpenShift is a Kubernetes-based container application platform developed by Red Hat. It enables developers and IT operations teams to build, deploy, manage, and scale applications easily — all in a cloud-native environment.

Key Features of OpenShift

- **Built on Kubernetes:** Offers powerful orchestration and container management.
- **Developer-Friendly GUI:** Simplifies application deployment with a web console.
- **CI/CD Support:** Integrated pipelines for continuous integration and delivery.
- **Security-First:** Comes with built-in security policies, role-based access control (RBAC), and more.
- **Multi-cloud & Hybrid Support:** Can be deployed on-premises, on public cloud, or in hybrid environments.

Components of OpenShift

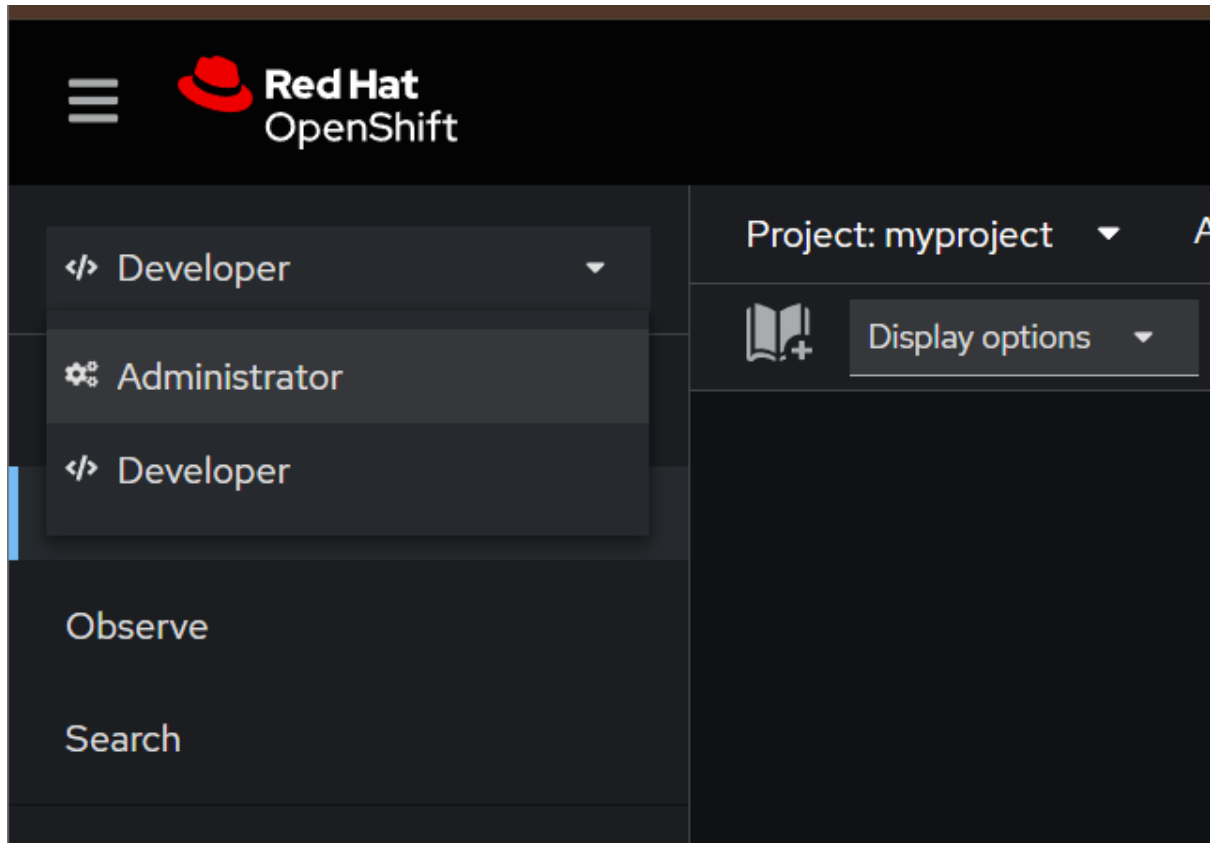
- **OpenShift Container Platform (OCP)** – Enterprise-grade platform.
- **OpenShift OKD** – The community version (also known as Origin).
- **OpenShift Web Console** – Web UI for developers and admins.
- **Source-to-Image (S2I)** – Automatically builds containers from your code.
- **OpenShift Pipelines** – Native CI/CD powered by Tekton.



BASIC HTTPD APACHE DEPLOYMENT USING OPENSIFT GUI.

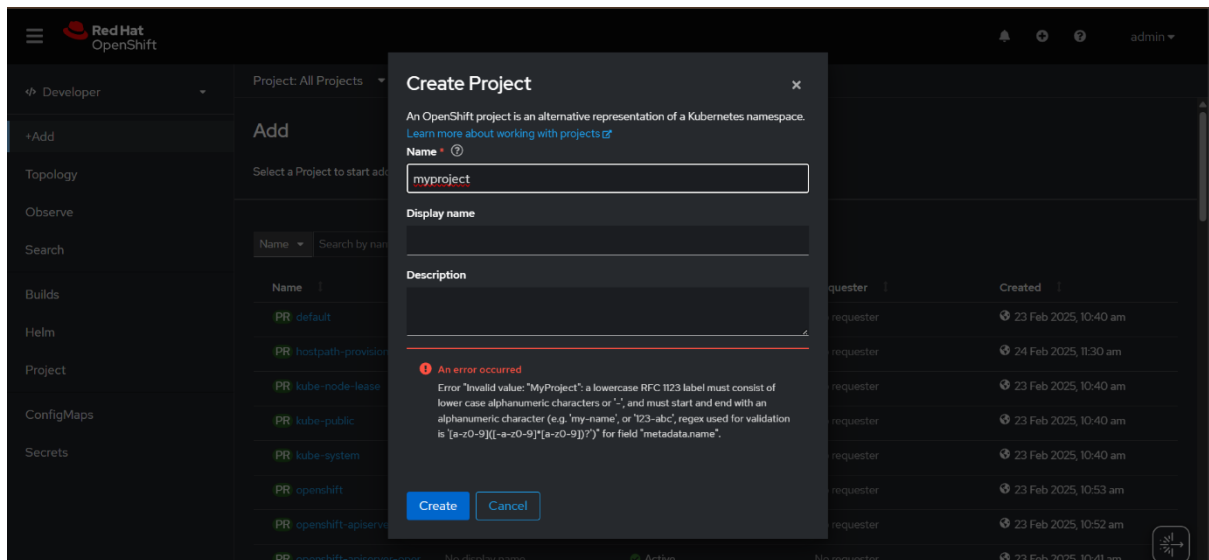
Step 1: Log in to OpenShift Web Console

1. Open the OpenShift Web Console in your browser.
2. Log in using your credentials (Developer or Administrator).



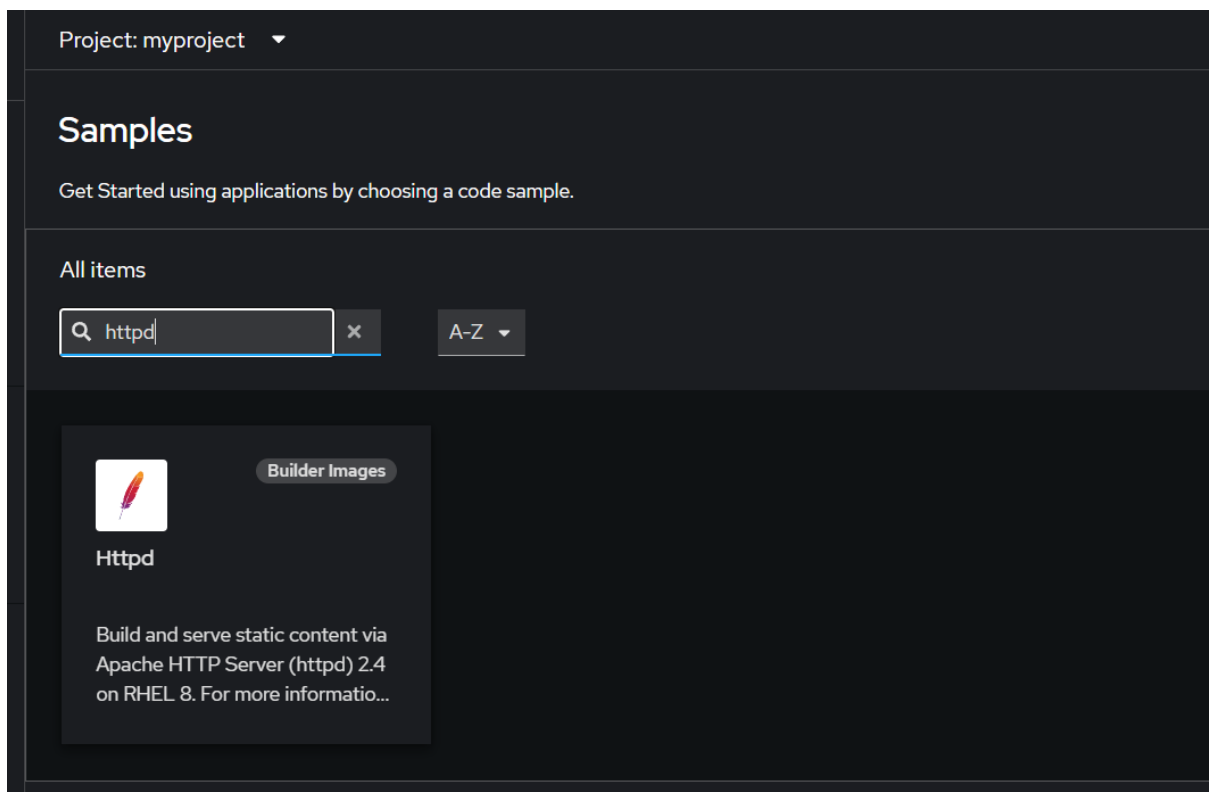
📁 Step 2: Create / Select a Project

1. Click on the "**Projects**" tab from the left sidebar.
2. Click "**Create Project**" (or use an existing one).



Step 3: Deploy HTTPD Using the Catalog

1. Inside the project, click on **+Add** (top left).
2. In the search bar, type **httpd** or **Apache**.
3. Click on the **"httpd" builder image** (or select from community catalog if official one is not listed).



Step 4: Configure the Application

Fill in the following fields:

- **Application Name:** httpd
- **Git Repository** (if you're deploying static HTML from GitHub):
e.g., <https://github.com/sclorg/httpd-ex>

Click **Create**.


Create Sample application

Name *

A unique name given to the component that will be used to name associated resources.

Builder Image version *

IST 2.4-el8

**Apache HTTP Server 2.4 (RHEL 8)**

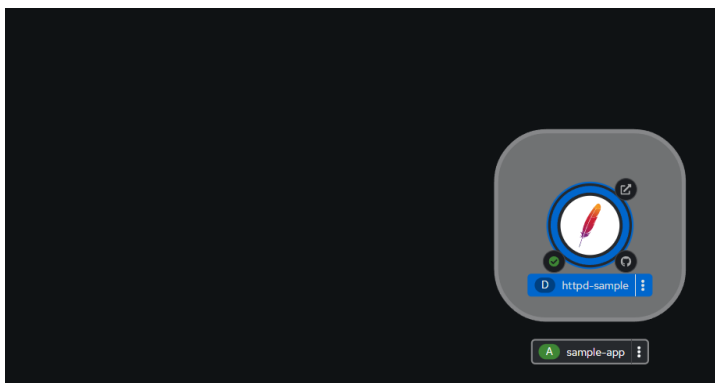
BUILDER HTTPD

Build and serve static content via Apache HTTP Server (httpd) 2.4 on RHEL 8. For more information about using this builder image, including OpenShift considerations, see <https://github.com/sclorg/httpd-container/blob/master/2.4/README.md>.
Sample repository: <https://github.com/sclorg/httpd-ex.git>

Git repo URL

Step 5: Monitor Build and Deployment

1. Navigate to **Topology View** in the left menu.
2. You'll see a new pod spinning up for httpd.
3. Wait for the build and deployment to complete.




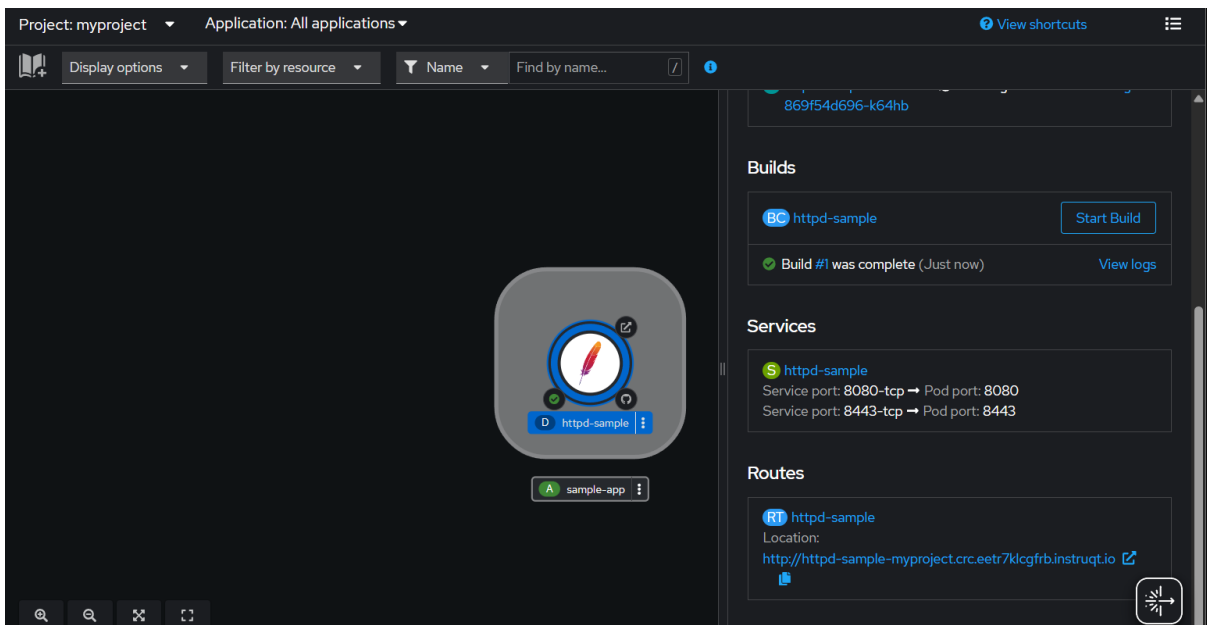
1. Check the project in cli using.

- #oc projects

```
no project has been seen. Pass a project name to make that the default.  
[root@crc roothome]# oc projects  
You have access to the following projects and can switch between them with 'project <projectname>':  
  
default  
hostpath-provisioner  
kube-node-lease  
kube-public  
kube-system  
myproject  
openshift  
openshift-apiserer
```

Step 6: Expose the Service (Create Route)

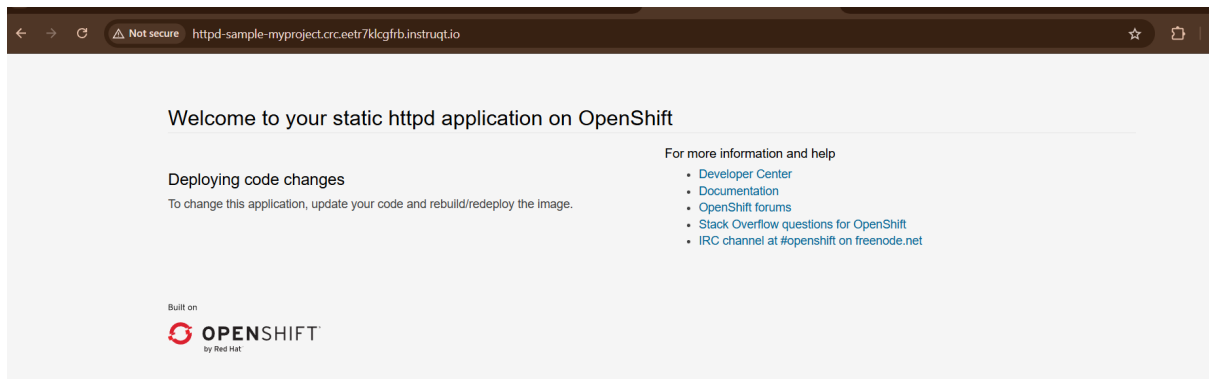
1. Click on the httpd pod in the topology.
2. Click "Resources" > "Routes".
3. You'll now get a route URL like:
 `http://httpd-<project>.<cluster-domain>`



The screenshot shows the OpenShift console interface for the 'myproject' project. The left sidebar displays a topology view with a pod labeled 'httpd-sample' and a service labeled 'sample-app'. The main panel on the right shows the configuration for the 'httpd-sample' service and route. The 'Builds' section indicates that 'Build #1' was completed. The 'Services' section shows the 'httpd-sample' service with ports 8080 and 8443. The 'Routes' section shows the 'httpd-sample' route with the location `http://httpd-sample-myproject.crc.eetr7klcgfrb.instruqt.io`.

Step 7: Test the Application

Open the URL shown in the Route. You should see the Apache HTTPD page or your deployed site.



You're Done!

You've successfully deployed an Apache HTTPD application on OpenShift using the GUI.