OpenShift.

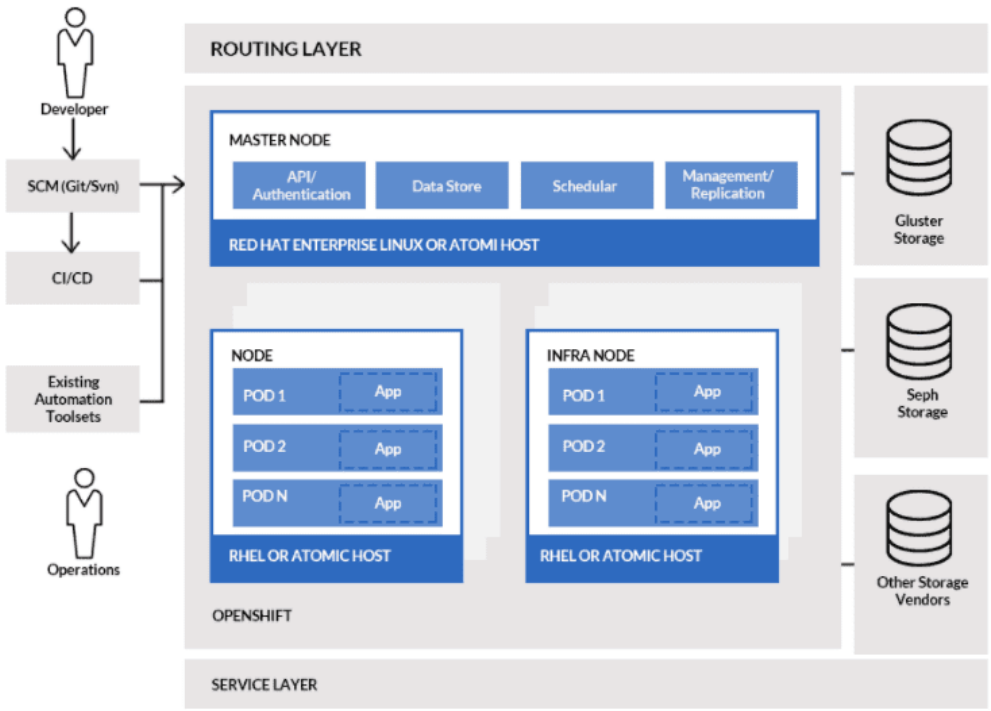
OpenShift is a Kubernetes-based container application platform developed by Red Hat. It enables developers and IT operations teams to build, deploy, manage, and scale applications easily — all in a cloud-native environment.

🔧 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

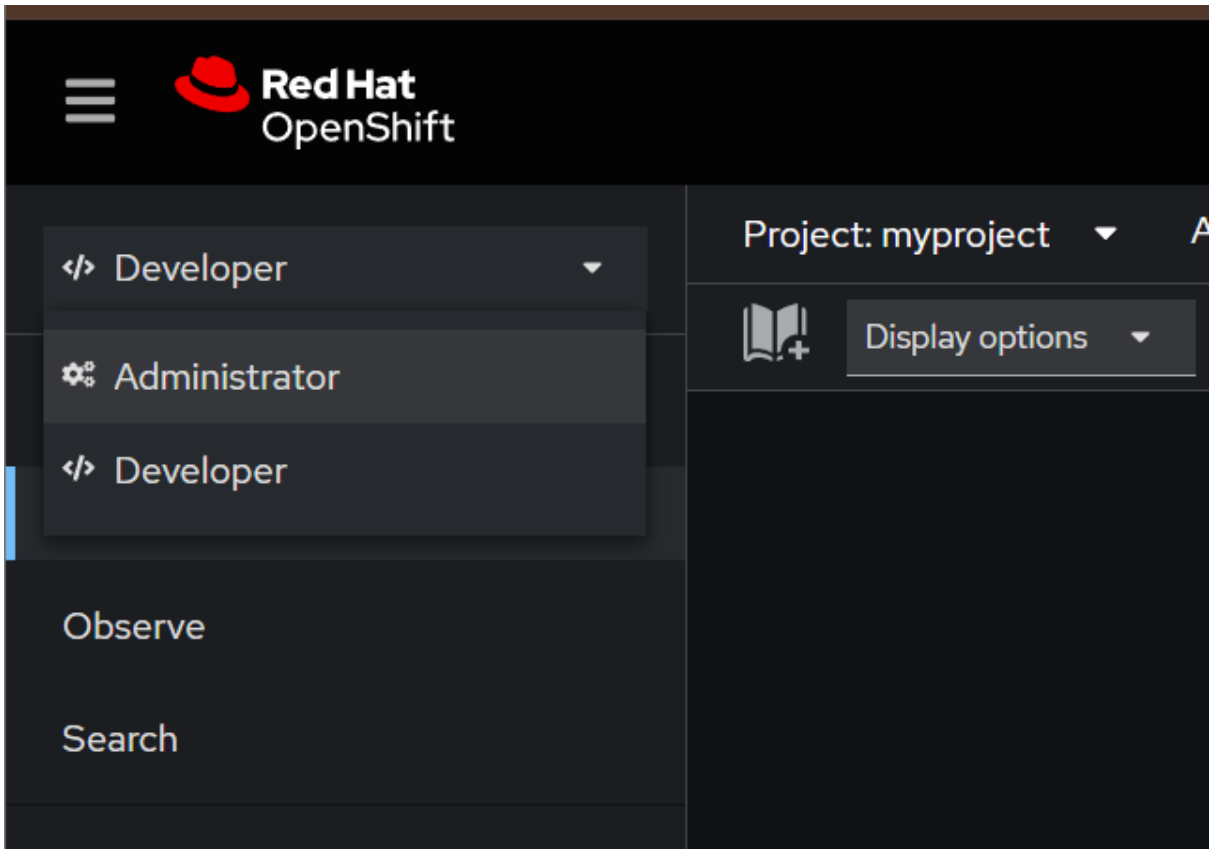
- **OpenShift Container Platform (OCP) – Enterprise-grade platform.**
- **OpenShift OKD – The community version (also known as Origin).**
- **OpenShift Web Console – Web UI for developers and admins.**
- **Source-to-Image (S2I) – Automatically builds containers from your code.**
- **OpenShift Pipelines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



BASIC HTTPD APACHE DEPLOYMENT USING OPENSHIFT GUI.

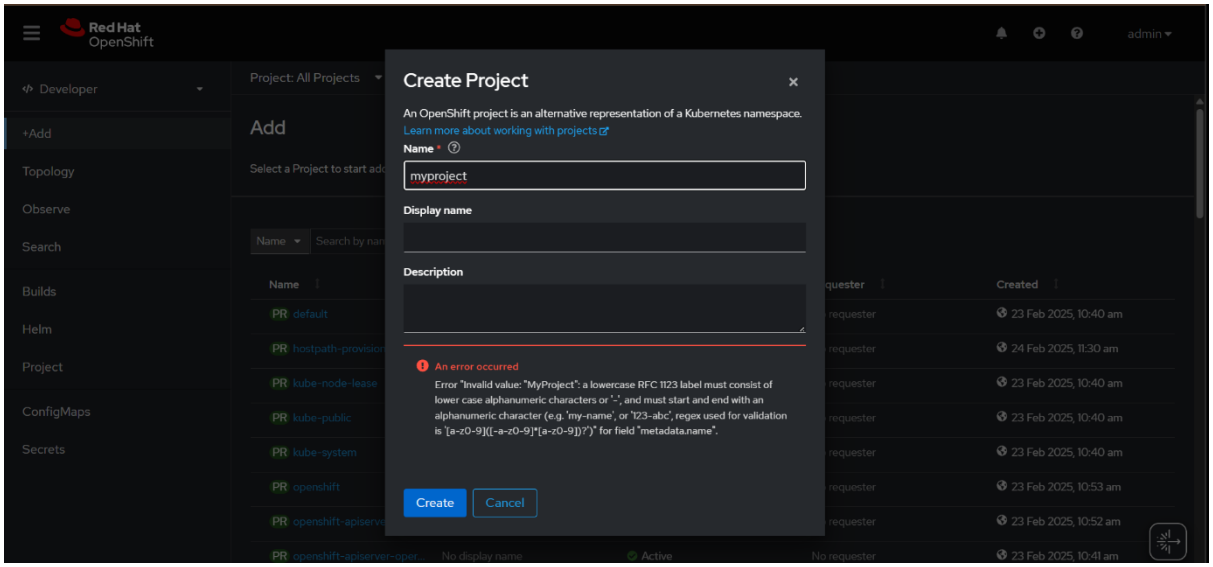
Step 1: Log in to OpenShift Web Console

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



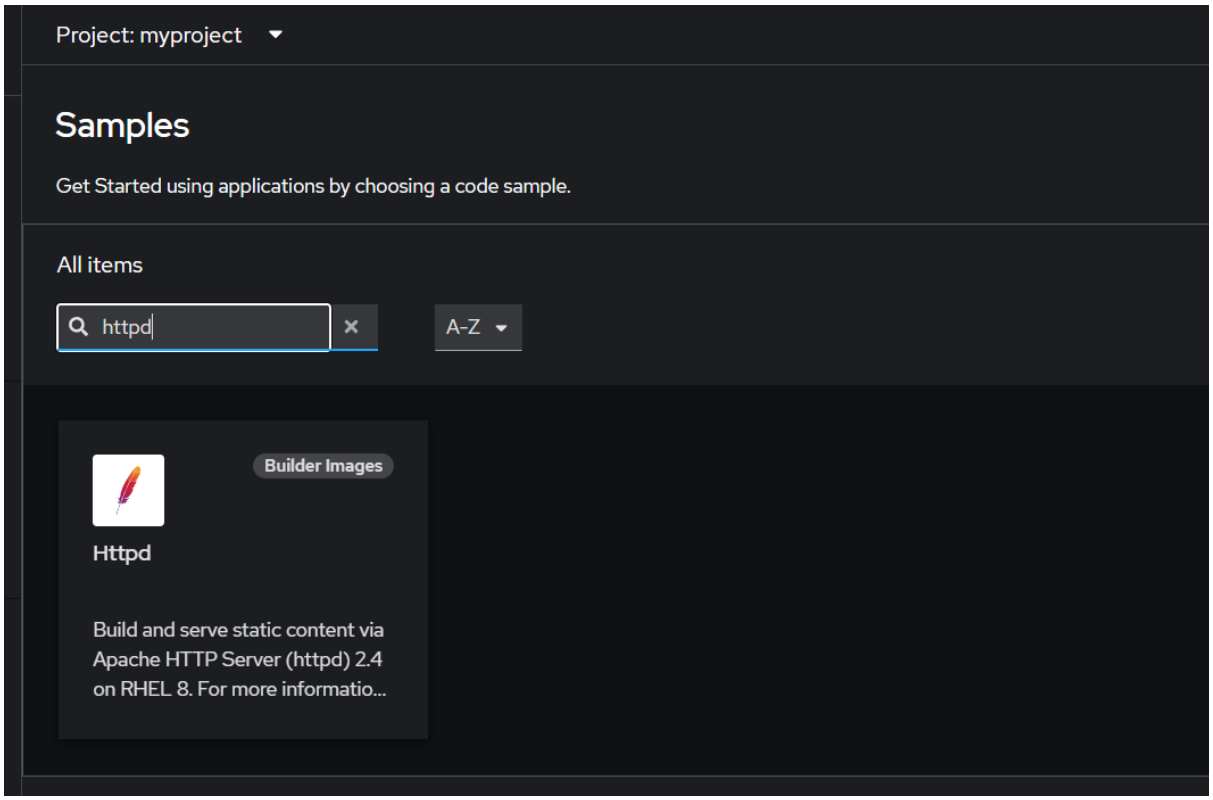
📁 **Step 2: Create / Select a Project**

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).

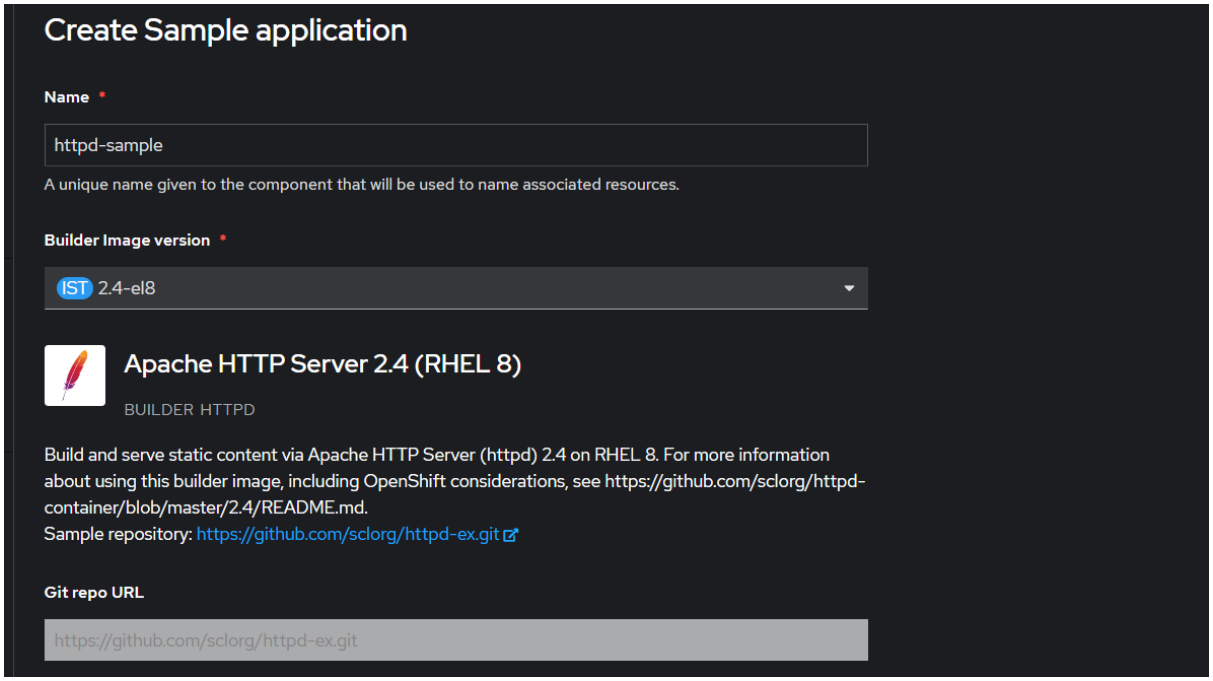


⚙️ Step 4: Configure the Application

Fill in the following fields:

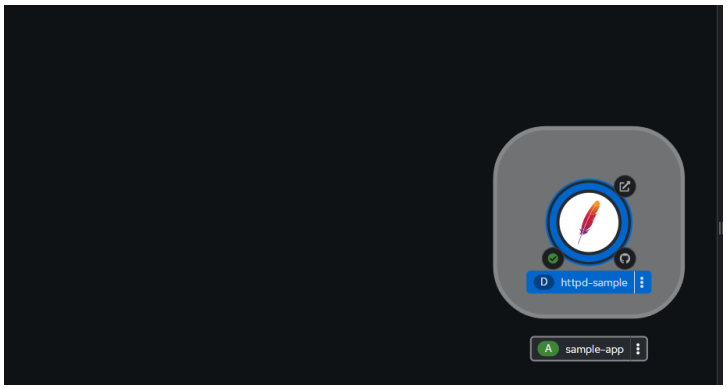
- **Application Name**: httpd
- **Git Repository** (if you're deploying static HTML from GitHub):
  e.g., https://github.com/sclorg/httpd-ex

Click **Create**.



📦 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.



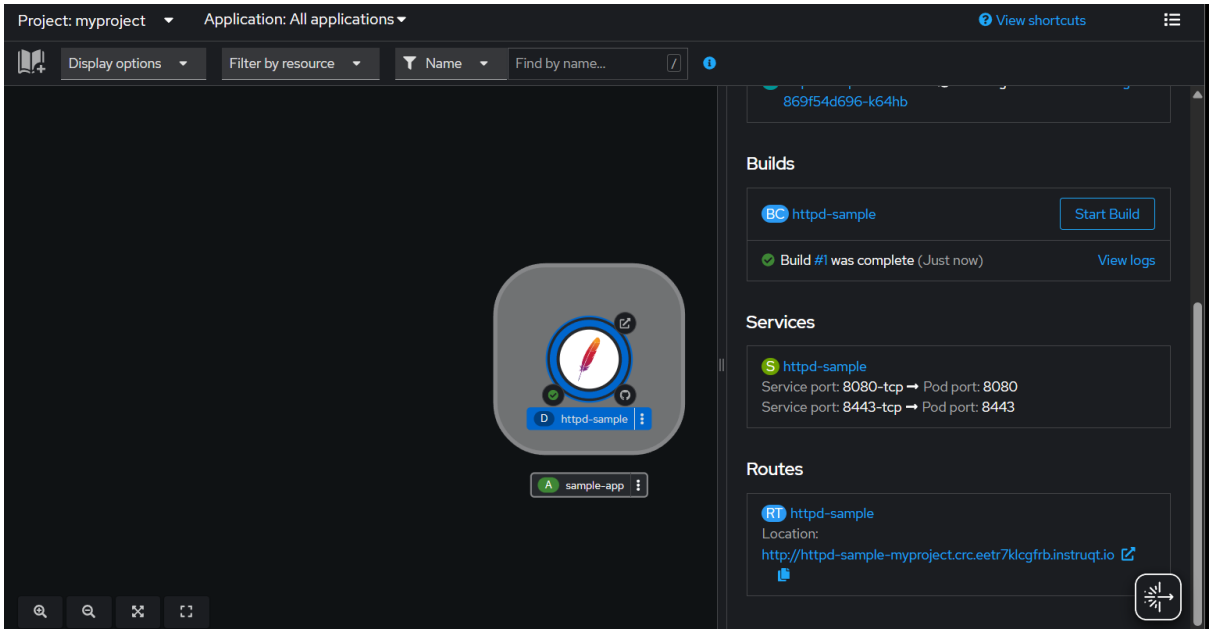
1. Check the project in cli using.
    - #oc projects

```
[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-apiserver
```

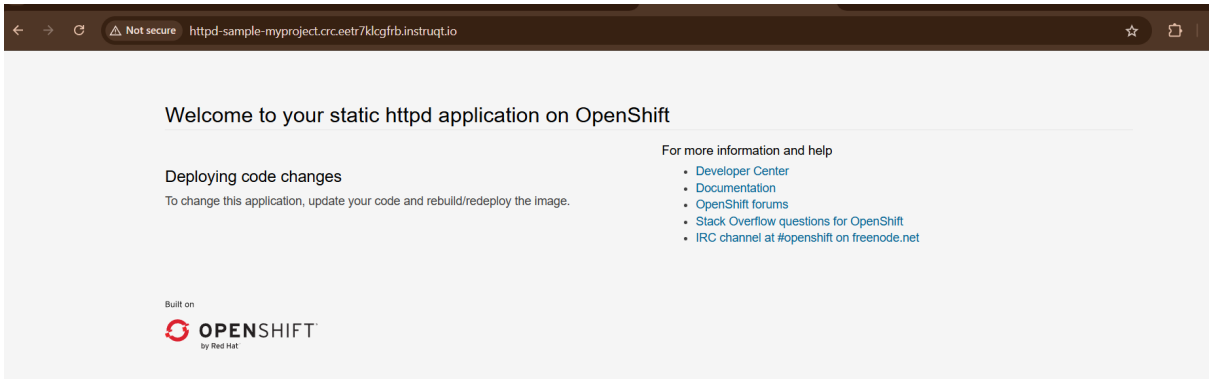
🌐 Step 6: Expose the Service (Create Route)

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>



✅ 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.