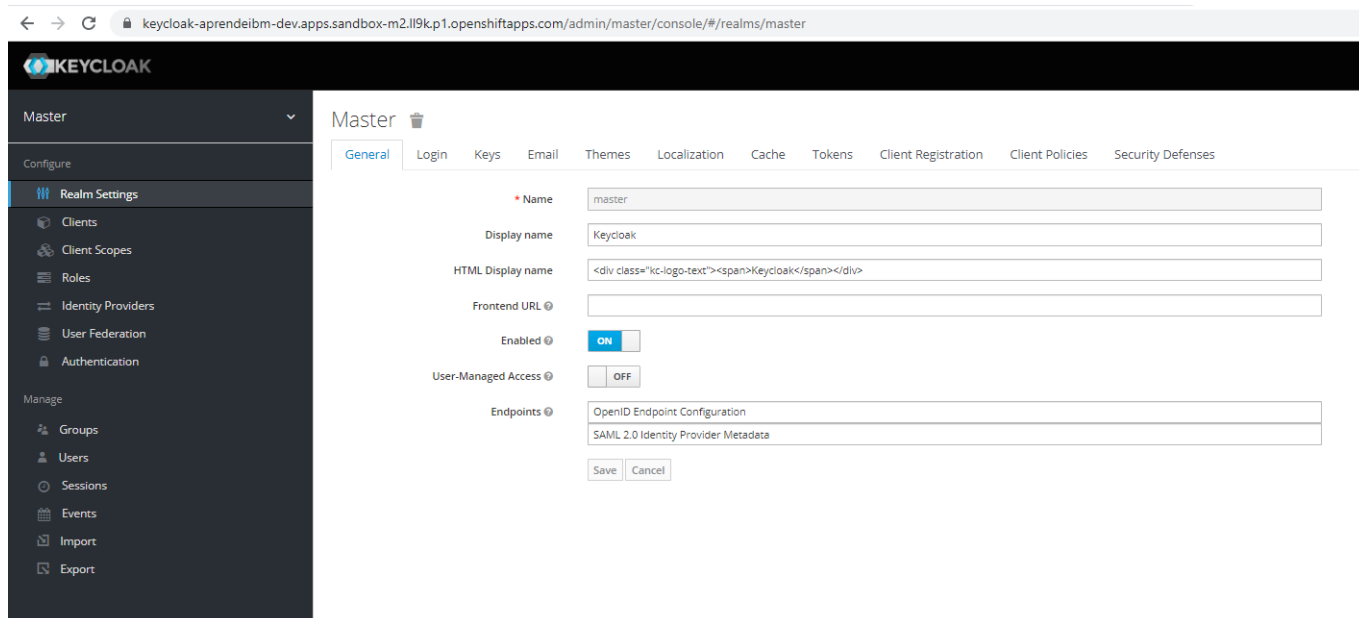
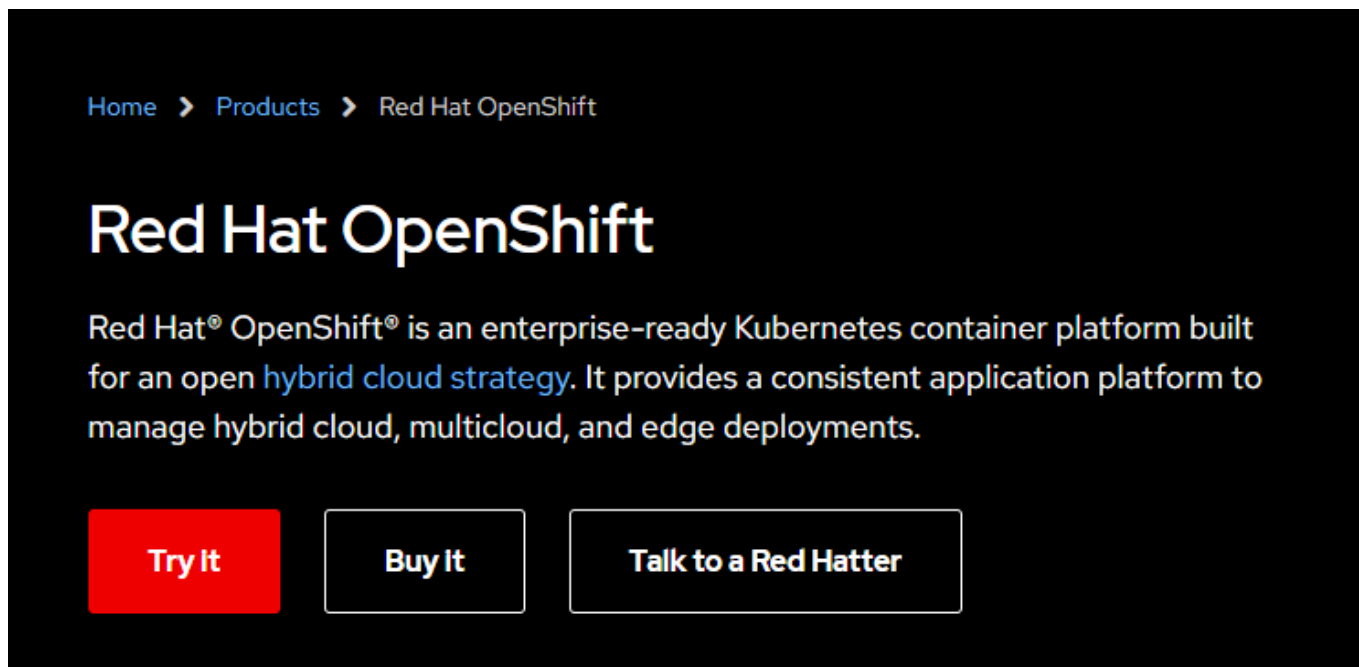


En este artículo vamos a ver los pasos para desplegar **KeyCloak** en un ambiente de **RedHat OpenShift**.

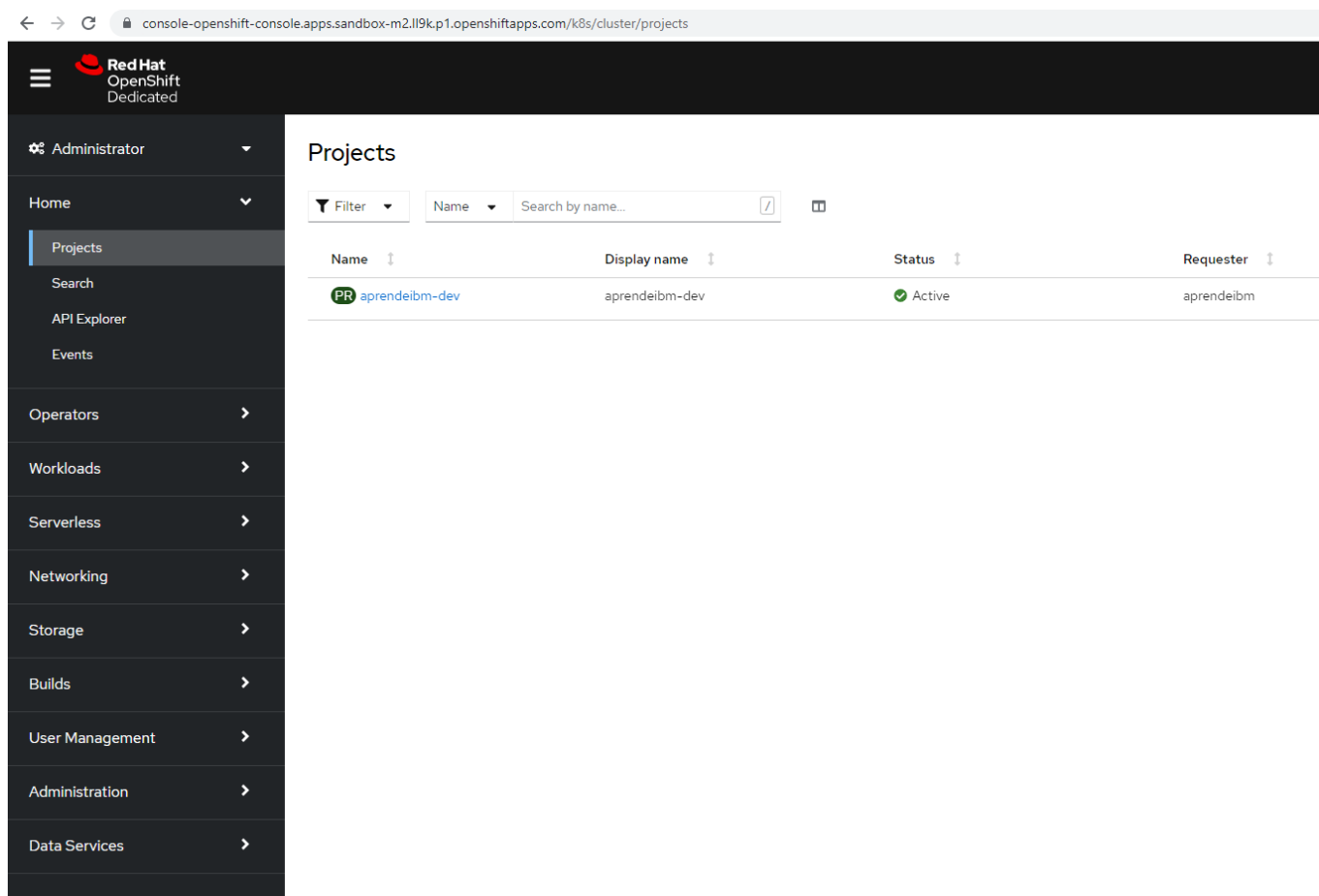


_1. Crear una cuenta trial de **OpenShift** en

<https://www.redhat.com/en/technologies/cloud-computing/openshift>



_2. Luego de disponer de una cuenta ingresamos al panel de administración, dependiendo de los datos ingresados, nos van a crear un proyecto, en este caso el proyecto tiene por nombre (**aprendeibm-dev**)



console-openshift-console.apps.sandbox-m2.ii9k.p1.openshiftapps.com/k8s/cluster/projects

Red Hat OpenShift Dedicated

Administrator

Home

Projects

Search

API Explorer

Events

Operators

Workloads

Serverless

Networking

Storage

Builds

User Management

Administration

Data Services

Projects

Filter Name Search by name...

Name	Display name	Status	Requester
PR aprendeibm-dev	aprendeibm-dev	Active	aprendeibm

_3. Ahora vamos a crear los siguientes objetos

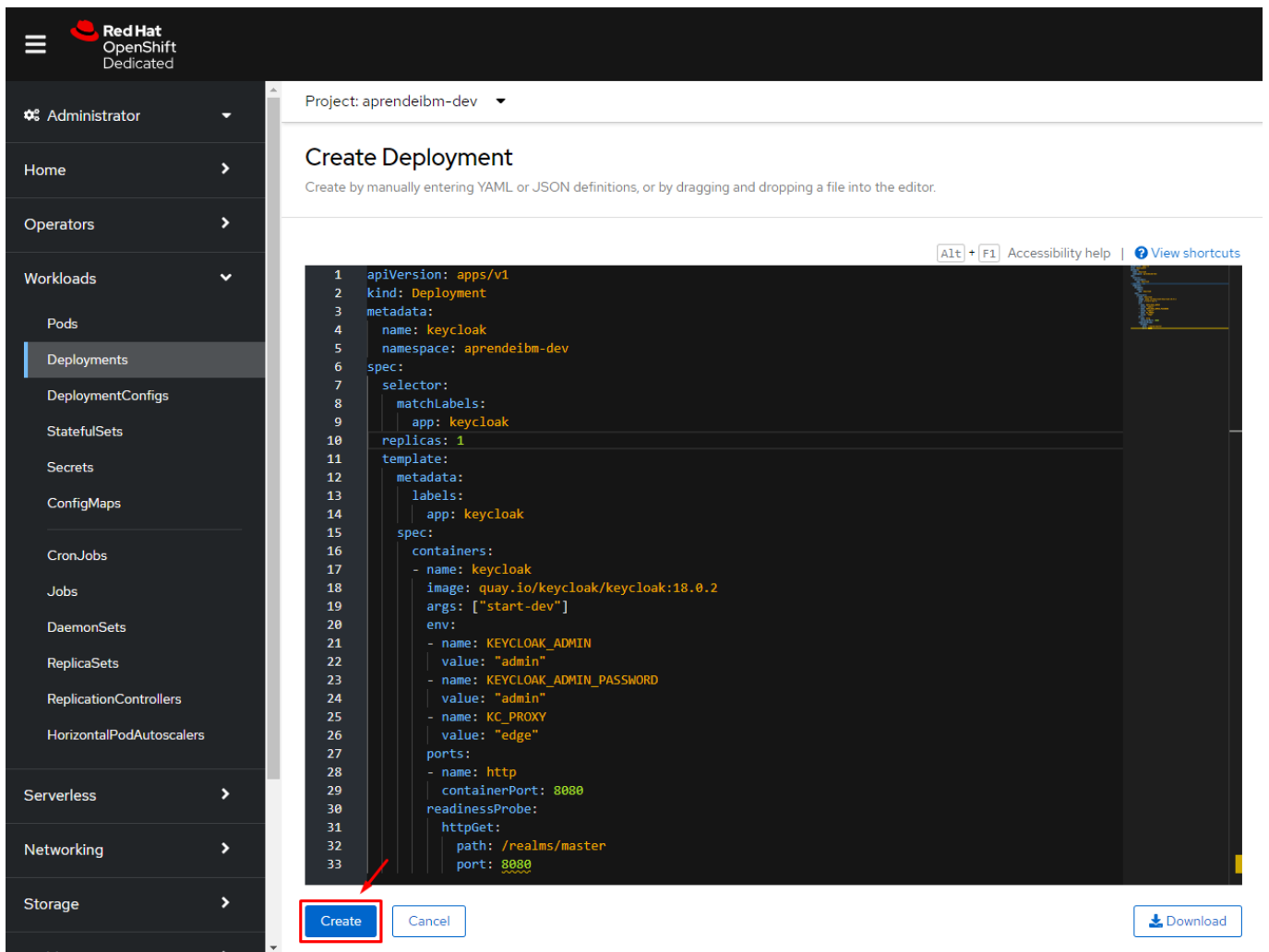
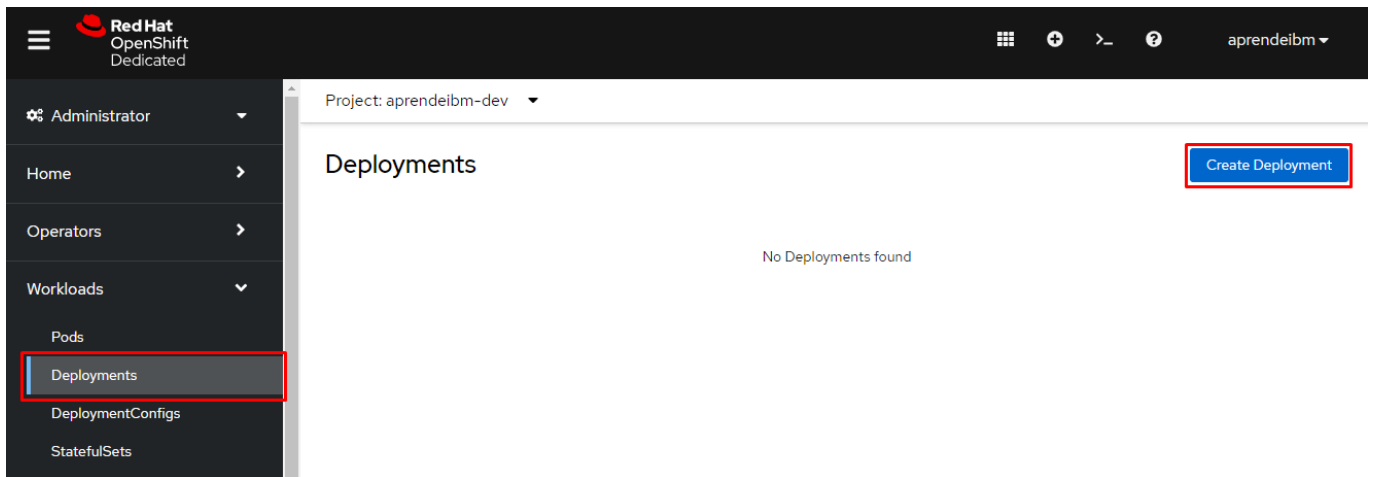
- Deployment
- Service
- Route

_4. **Crear Deployment:** en el menú nos vamos a **Workloads>>Deployments** y luego dar clic en «**Create Deployment**», adjunto archivo con el contenido a copiar y pegar ([only-keycloak-deployment.txt](#)), luego le damos en «**Create**».

```
1  apiVersion: apps/v1
2  kind: Deployment
3  metadata:
4    name: keycloak
5    namespace: aprendeibm-dev
6  spec:
7    selector:
8      matchLabels:
9        app: keycloak
10   replicas: 1
11   template:
12     metadata:
13       labels:
14         app: keycloak
15     spec:
16       containers:
17         - name: keycloak
18           image: quay.io/keycloak/keycloak:18.0.2
19           args: ["start-dev"]
20           env:
21             - name: KEYCLOAK_ADMIN
22               value: "admin"
23             - name: KEYCLOAK_ADMIN_PASSWORD
24               value: "admin"
25             - name: KC_PROXY
26               value: "edge"
27           ports:
28             - name: http
29               containerPort: 8080
30           readinessProbe:
31             httpGet:
32               path: /realms/master
33               port: 8080
```

En este apartado es bueno revisar la versión de la imagen que vamos a desplegar de **KeyCloak** ya que en nuevas versiones cambia el **look and feel**, en este caso vamos a utilizar la versión **18.0.2**

Para revisar las versiones disponibles a desplegar en un entorno de **Kubernetes**, visitar: <https://www.keycloak.org/getting-started/getting-started-kube>





Deployments > Deployment details

D keycloak

Details Metrics YAML ReplicaSets Pods Environment Events

Deployment details




Name keycloak	Update strategy RollingUpdate
Namespace  aprendeibm-dev	Max unavailable 25% of 1 pod
Labels No labels	Max surge 25% greater than 1 pod

Project: aprendeibm-dev ▼

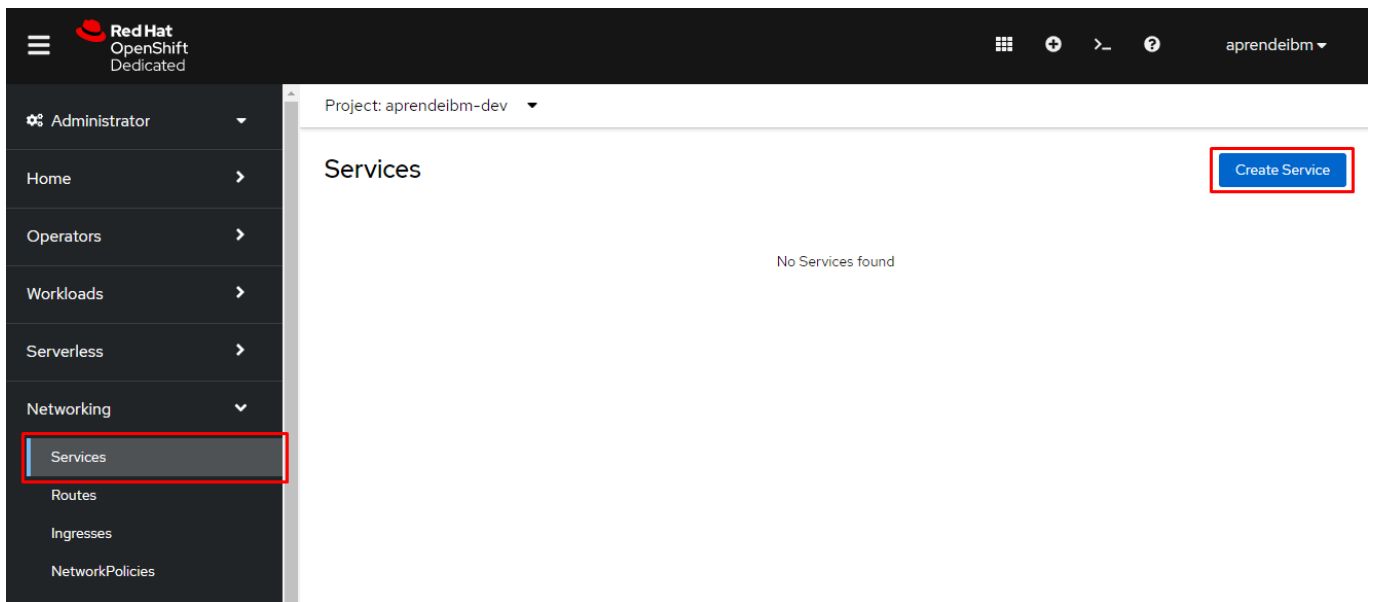
Deployments

Name ▼ Search by name...

Name ↑	Status ↑
 keycloak	1 of 1 pods

_5. **Crear Service:** Ingresar al menú **Networking >> Services** y clic en «**Create Service**», ahí debemos colocar lo siguiente, se adjunta ([only-keycloak-service.txt](#)).

```
1  apiVersion: v1
2  kind: Service
3  metadata:
4    name: keycloak
5    namespace: aprendeibm-dev
6  spec:
7    selector:
8      app: keycloak
9    ports:
10     - protocol: TCP
11       port: 80
12       targetPort: 8080
```



Project: aprendeibm-dev

Create Service

Create by manually entering YAML or JSON definitions, or by dragging and dropping a file into the editor.

```
1 apiVersion: v1
2 kind: Service
3 metadata:
4   name: keycloak
5   namespace: aprendeibm-dev
6 spec:
7   selector:
8     app: keycloak
9   ports:
10    - protocol: TCP
11      port: 80
12      targetPort: 8080
```

Create

Project: aprendeibm-dev

Services

Name Search by name...

Name	Labels	Pod selector	Location
keycloak	No labels	app=keycloak	172.30.108.171:80

Project: aprendeibm-dev ▾

Services > Service details

keycloak Actions ▾

Details **YAML** Pods

Service details

Name
keycloak

Namespace
aprendeibm-dev

Labels Edit
No labels

Pod selector
app=keycloak

Annotations
0 annotations

Session affinity
None

Service routing

Hostname
keycloak.aprendeibm-dev.svc.cluster.local
Accessible within the cluster only

Service address

Type	Location
Cluster IP Accessible within the cluster only	172.30.108.171

Service port mapping

Name	Port	Protocol	Pod port or name
-	80	TCP	8080

6. Crear Route: Ingresar al menú, **Networking**>>**Routes** y luego clic en «**Create Route**»

Red Hat OpenShift Dedicated

Project: aprendeibm-dev ▾

Routes Create Route

No Routes found

Administrator

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- Services
- Routes**
- Ingresses
- NetworkPolicies

Project: aprendeibm-dev ▾

Create Route

[Edit YAML](#)

Routing is a way to make your application publicly visible.

Name *

keycloak

A unique name for the Route within the project.

Hostname

www.example.com

Public hostname for the Route. If not specified, a hostname is generated.

Path

/

Path that the router watches to route traffic to the service.

Service *

keycloak

Service to route to.

Target port *

80 → 8080 (TCP)

Target port for traffic.

Security Secure Route

Routes can be secured using several TLS termination types for serving certificates.

TLS termination *

Edge

Insecure traffic

None

Policy for traffic on insecure schemes like HTTP.

Aquí debemos seleccionar el **Service**, **Target port**, **Security**, **TLS termination (Edge** para tener https en la ruta que va a exponer nuestro Route), **Insecure traffic** según la imagen. Luego presionar en «**Create**».

Project: aprendeibm-dev

Routes > Route details

keycloak Accepted

Details Metrics YAML

Route details

Name keycloak	Location https://keycloak-aprendeibm-dev.apps.sandbox-m2.1l9k.p1.openshiftapps.com
Namespace aprendeibm-dev	Status Accepted
Labels No labels	Host keycloak-aprendeibm-dev.apps.sandbox-m2.1l9k.p1.openshiftapps.com
Annotations 1 annotation	Path -
Service keycloak	Router canonical hostname router-default.apps.sandbox-m2.1l9k.p1.openshiftapps.com
Target port 8080	
Created at Just now	
Owner No owner	

Project: aprendeibm-dev

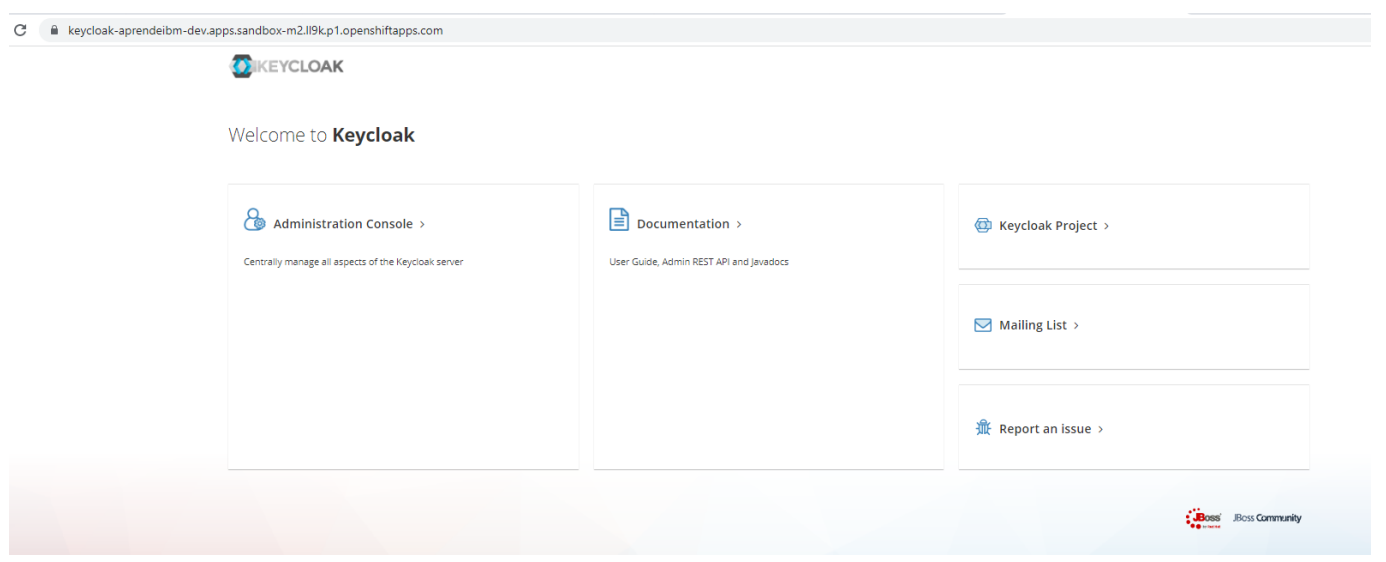
Routes

Filter Name Search by name...

Name	Status	Location	Service
keycloak	Accepted	https://keycloak-aprendeibm-dev.apps.sandbox-m2.1l9k.p1.openshiftapps.com	keycloak

7. Ingresar a la ruta indicada en el «Location»

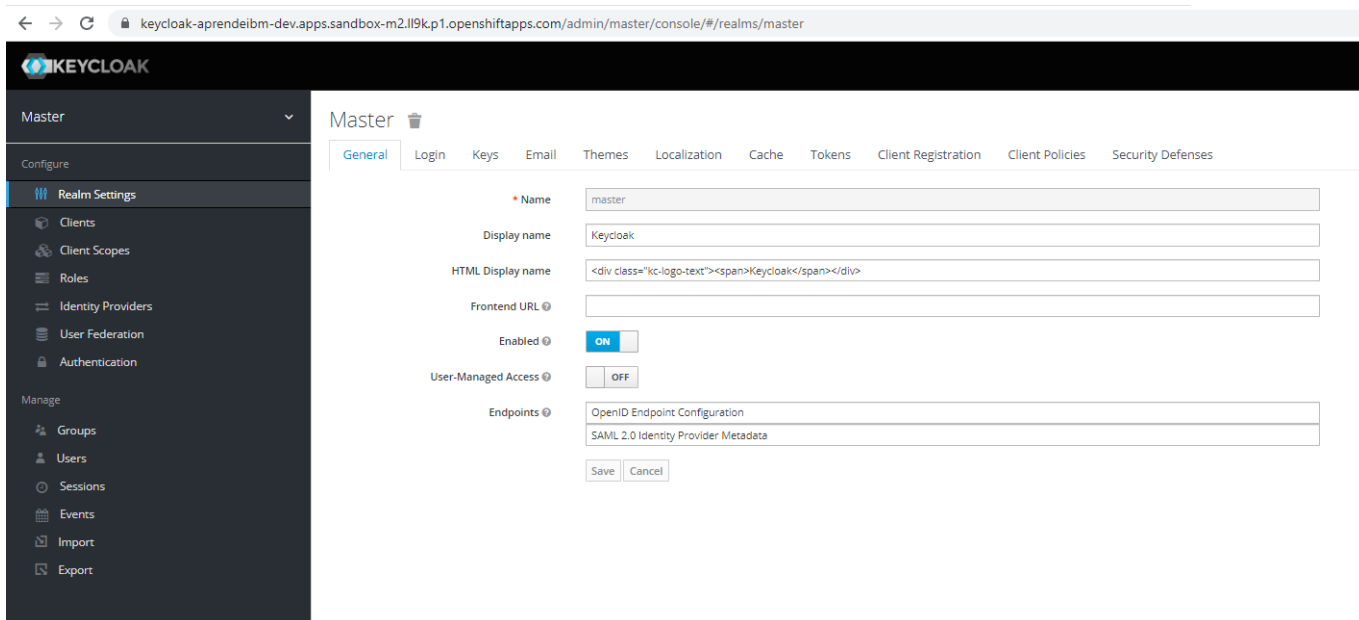
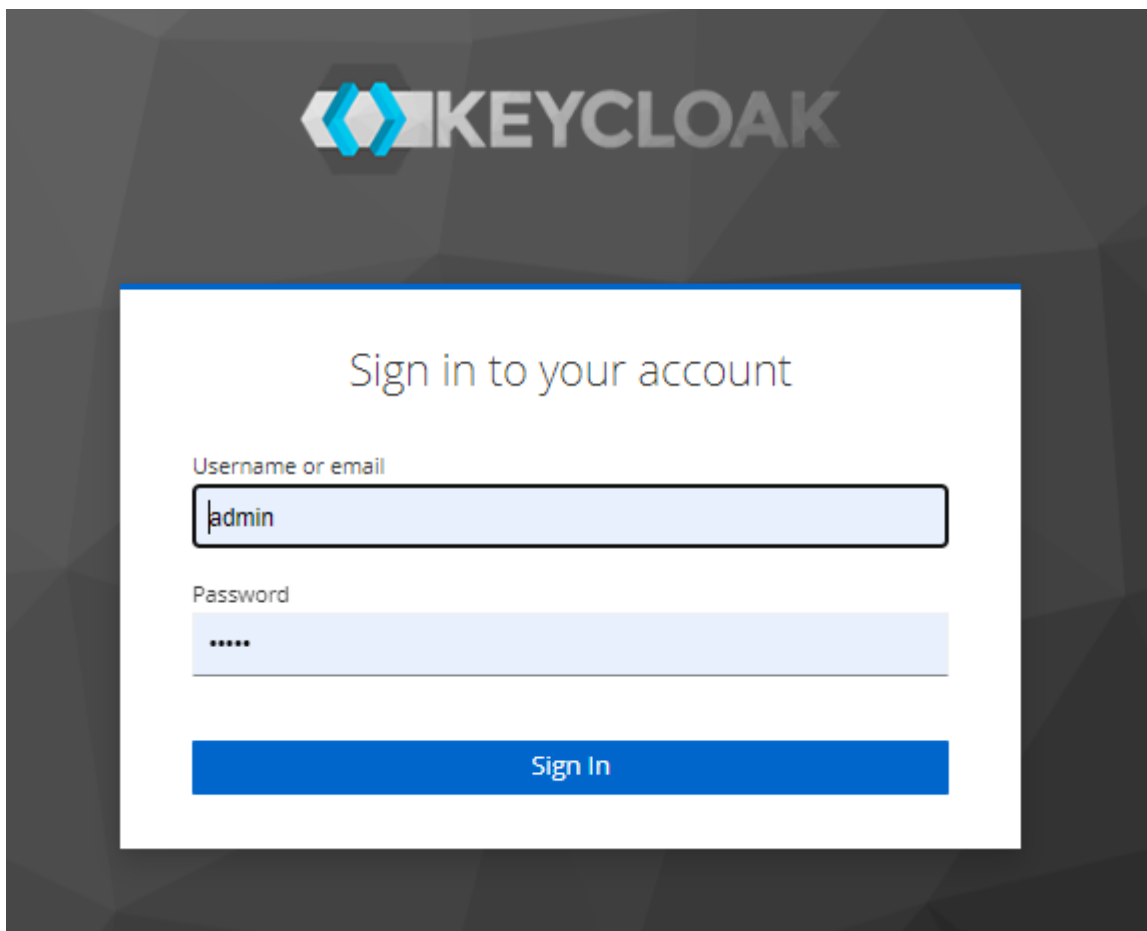
keycloak-aprendeibm-dev.apps.sandbox-m2.1l9k.p1.openshiftapps.com



Welcome to **Keycloak**

- Administration Console > Centrally manage all aspects of the Keycloak server
- Documentation > User Guide, Admin REST API and Javadocs
- Keycloak Project >
- Mailing List >
- Report an issue >

JBoss JBoss Community



Julio Pari (IT Architect IBM)



Si te ha interesado este artículo y deseas un apoyo o asesoría en algún requerimiento, envíame un mensaje a: (info@juliopari.com) o sino a través de LinkedIn:
<https://www.linkedin.com/in/juliopari/>
