

Automated Deployment on Red Hat OpenShift with the Joget Operator

Red Hat OpenShift is the industry's most comprehensive enterprise Kubernetes platform, and operators are the modern way to automate infrastructure management tasks. A new [Joget DX8 Operator](#) has now been released to further simplify and accelerate app development on Red Hat OpenShift. It has achieved [Red Hat OpenShift Operator Certification](#), and is now available in the OpenShift Embedded OperatorHub.

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Tutorial Part 1: Install Joget DX 8 Operator from the OperatorHub

The Joget DX Operator enables customers to rapidly deploy, manage and scale a Joget DX cluster on Red Hat OpenShift. As a certified Operator, it is listed in the OpenShift Embedded OperatorHub catalog. Joget DX is a development platform as well as an application runtime, so the Joget DX Operator is listed under both the Application Runtime and Developer Tools categories.

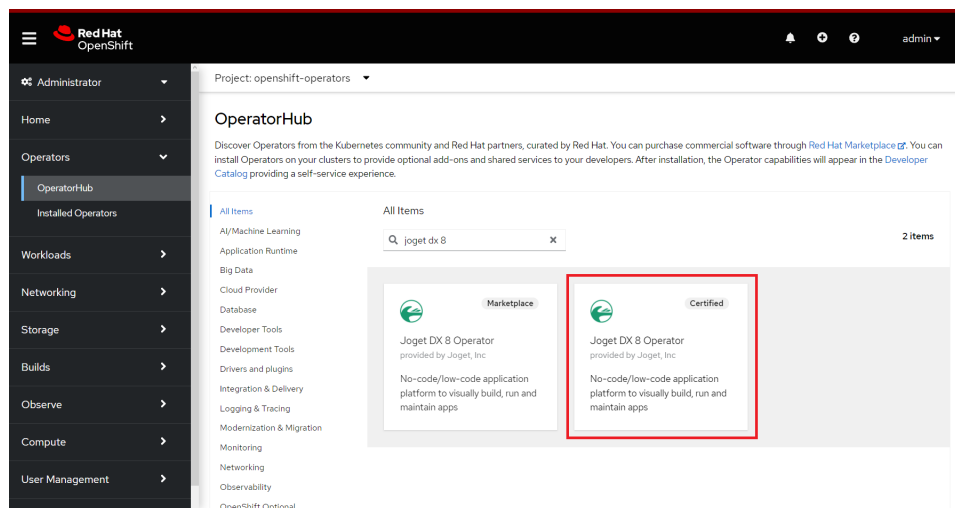
These steps assume that you already have a running OpenShift 4 cluster. You can access <https://try.openshift.com/> and select [OpenShift 4 playground](#) to setup a new cluster.

1.1 Install Joget DX 8 Operator as Cluster Admin

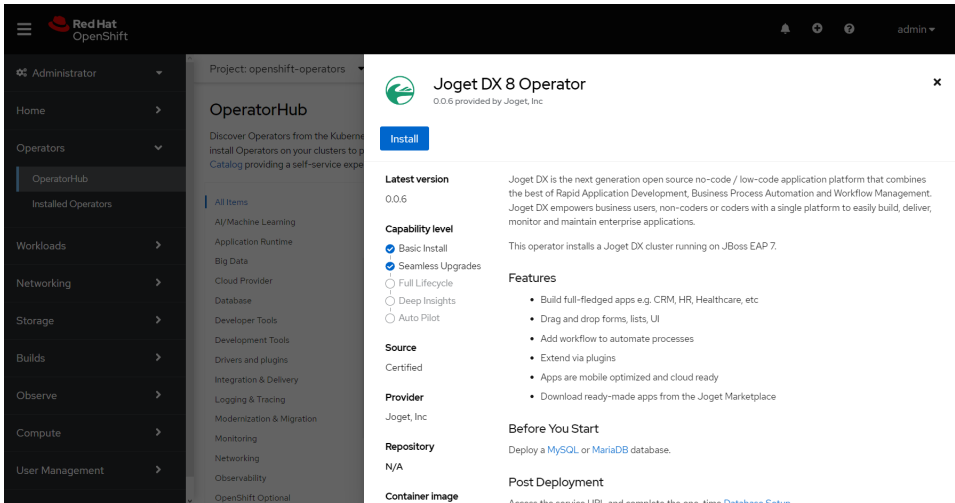
1. Login to the OpenShift console as the cluster admin

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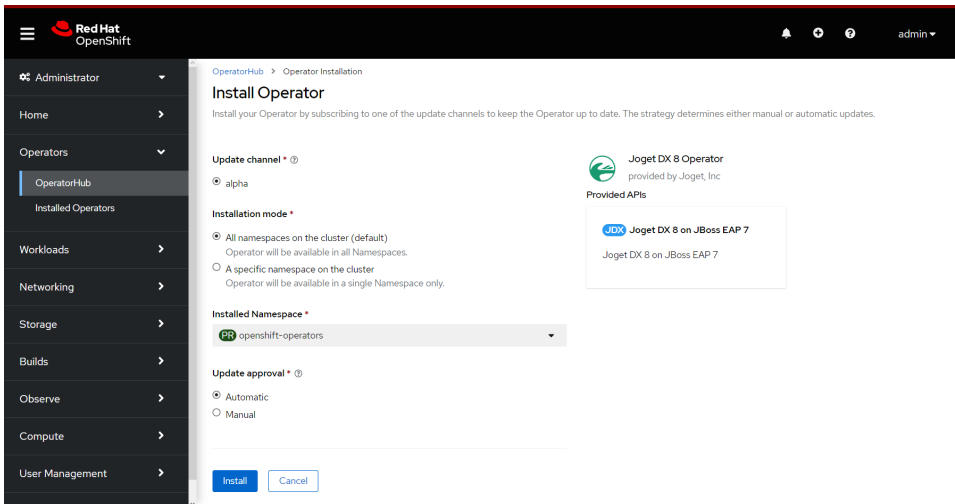
2. Browse to Operators > OperatorHub and search for Joget DX8



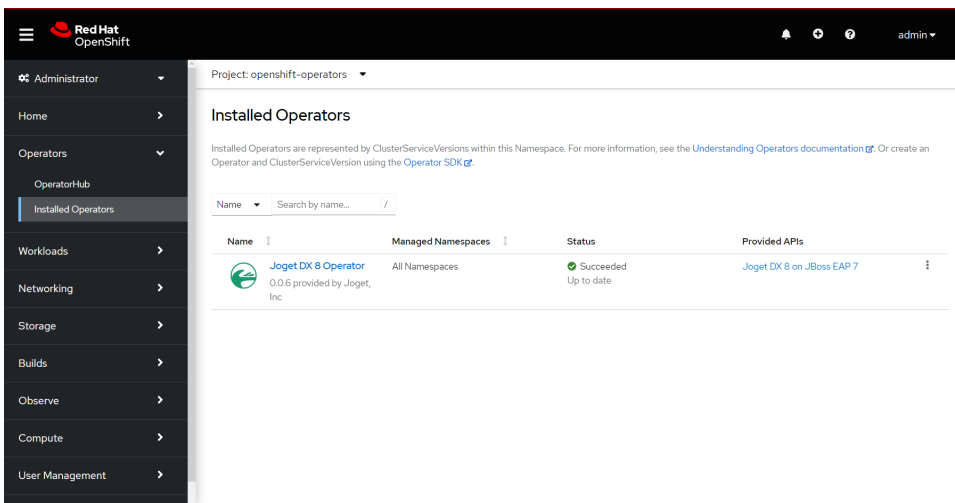
3. Select the Joget DX 8 Operator, and click on the Install button



4. Click on the Install button to install the Joget DX 8 Operator.



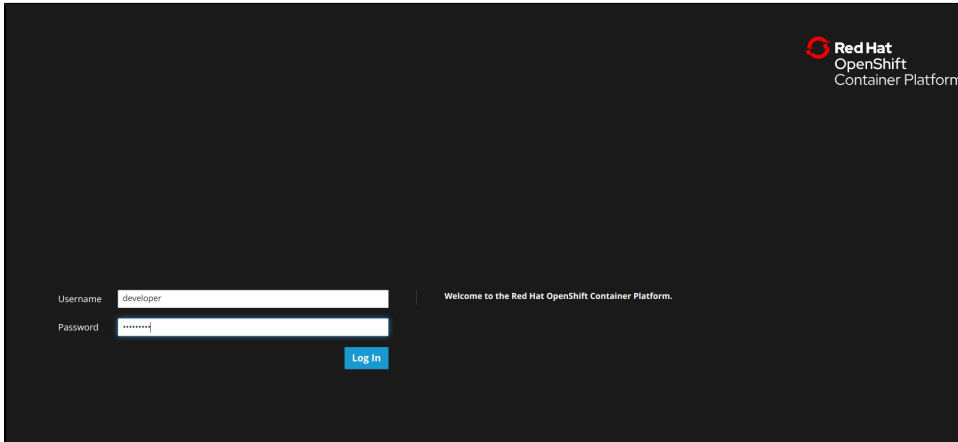
5. Browse to Catalog > Installed Operators and select Joget DX 8 Operator to confirm that the operator has been installed successfully.



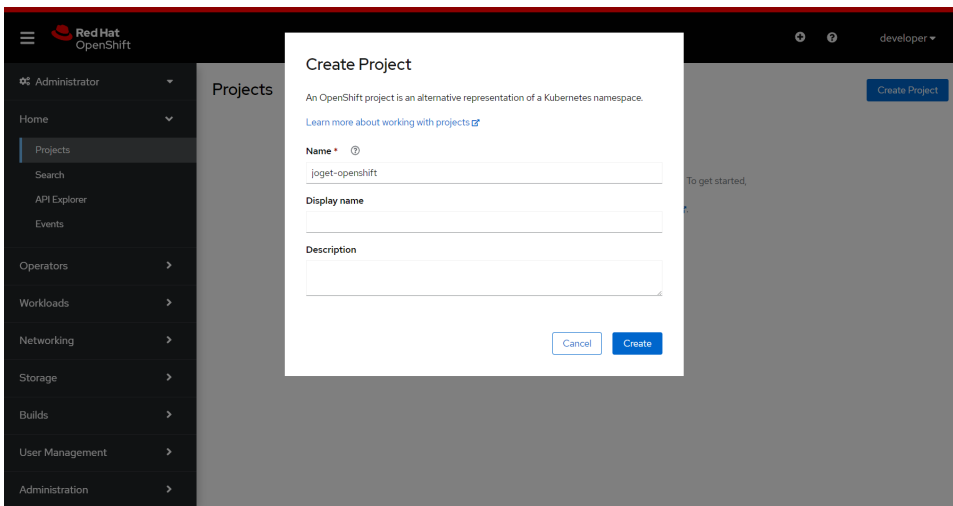
Tutorial Part 2: Create a Joget Cluster with the Joget DX 8 Operator

2.1 Create New Project and Deploy Database

1. Now that the Joget Operator has been installed, login to the OpenShift console as a normal user.



2. Browse to Projects and click on the Create Project button. Enter a name and click on Create.



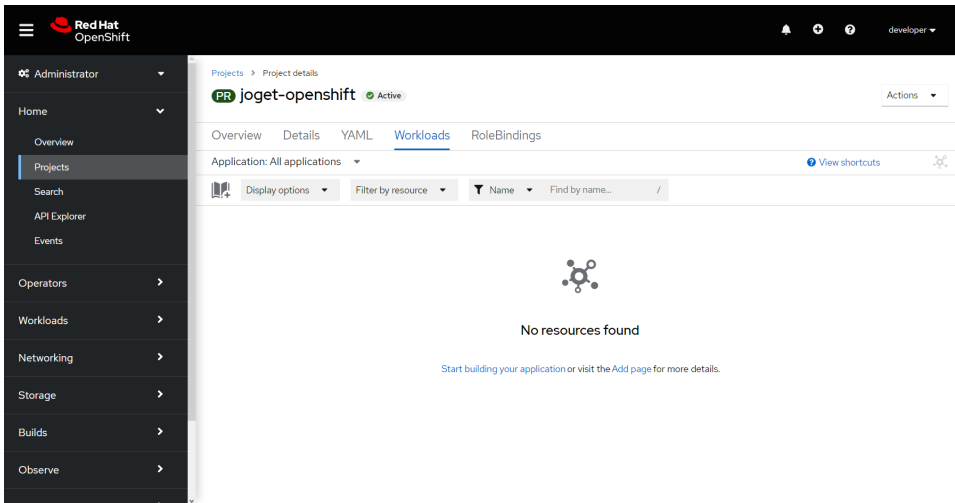
3. As a prerequisite, you will need to deploy either a [MySQL](#) or [MariaDB](#) database in the project.

4. The fastest way to deploy MySQL would be to use the OpenShift CLI e.g.:

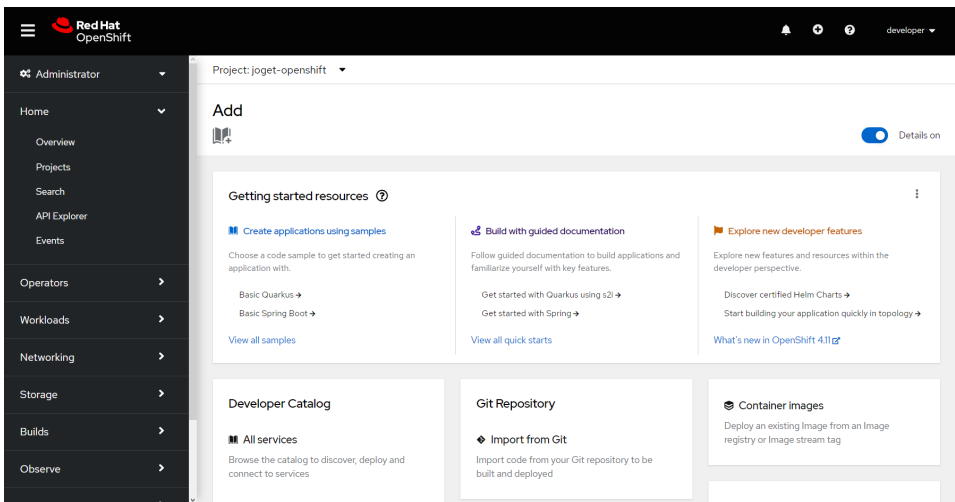
```
# deploy persistent mysql
export DB_APP_NAME=jogetdb
export MYSQL_DATABASE=jwdb
export MYSQL_USER=joget
export MYSQL_PASSWORD=joget

oc new-app openshift/mysql-persistent --name $DB_APP_NAME -p DATABASE_SERVICE_NAME=$DB_APP_NAME -p
MYSQL_USER=$MYSQL_USER -p MYSQL_PASSWORD=$MYSQL_PASSWORD -p MYSQL_DATABASE=$MYSQL_DATABASE
```

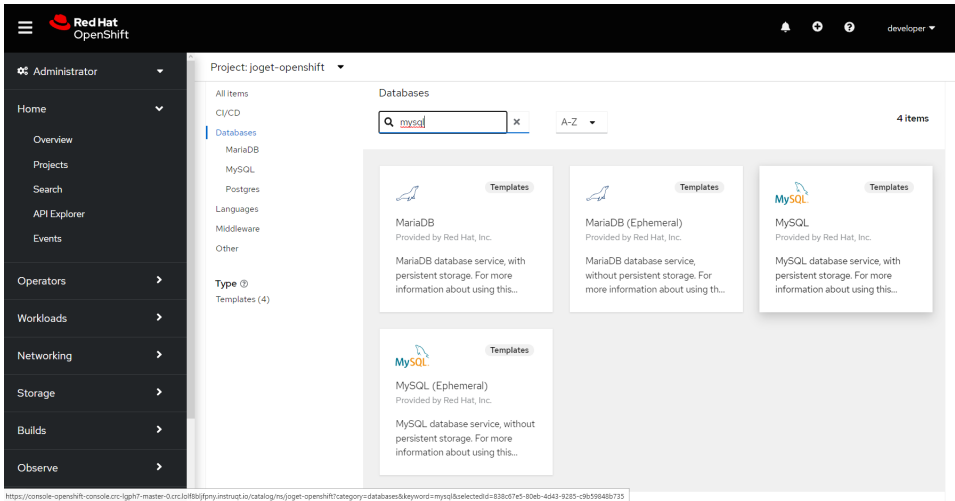
- Alternatively, you can deploy using the OpenShift Console.
- Browse to the project, go to Workloads and click on add page.



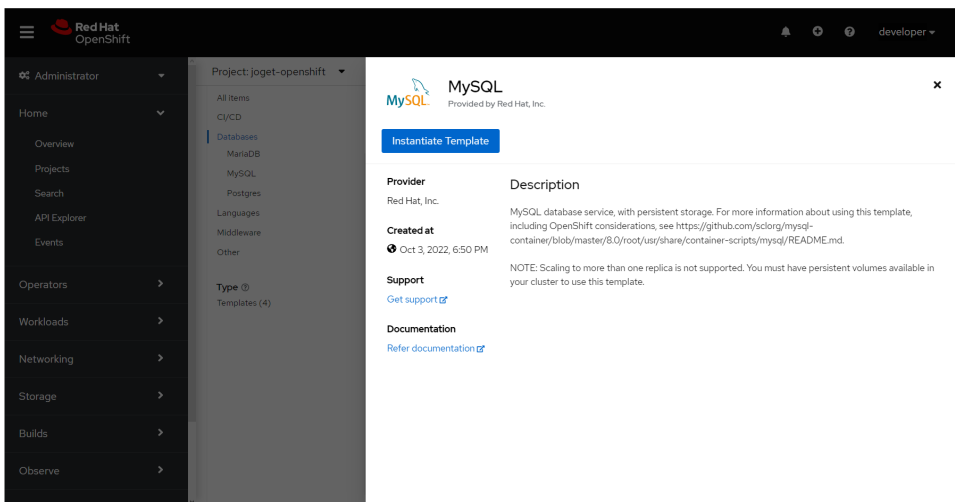
- Select Database.



- Search for MySQL.



9. Select MySQL then click on Instantiate Template.



10. Key in the following configuration and click on Create.

Instantiate Template

Namespace *
joget-openshift

Memory Limit *
512Mi
Maximum amount of memory the container can use.

Database Service Name *
jogetdb
The OpenShift Service exposed for the database.

MySQL Connection Username
joget
Username for MySQL user that will be used for accessing the database.

MySQL Connection Password
joget
Password for the MySQL connection user.

MySQL root user Password
(generated if empty)
Password for the MySQL root user.

MySQL Database Name *
jwdb

MySQL
DATABASE: MYSQL
[View Documentation](#) [Get Support](#)

MySQL database service, with persistent storage. For more information about using this template, including OpenShift considerations, see <https://github.com/sclorg/mysql-container/blob/master/8.0/root/usr/share/container-scripts/mysql/README.md>.

NOTE: Scaling to more than one replica is not supported. You must have persistent volumes available in your cluster to use this template.

The following resources will be created:

- DeploymentConfig
- PersistentVolumeClaim
- Secret
- Service

- Database Service Name: jogetdb
- MySQL Connection Username: joget
- MySQL Connection Password: joget
- MySQL Database Name: jwdb

11. Go to Workloads > Deployment Configs to verify that the MySQL database has been deployed successfully.

Project: joget-openshift

DeploymentConfig details

1 Pod

Name
jogetdb

Latest version
1

Namespace
joget-openshift

Message
config change

Labels
template=mysql-p-... template=...-34b8f4f...

Update strategy
Recreate

Pod selector
name=jogetdb

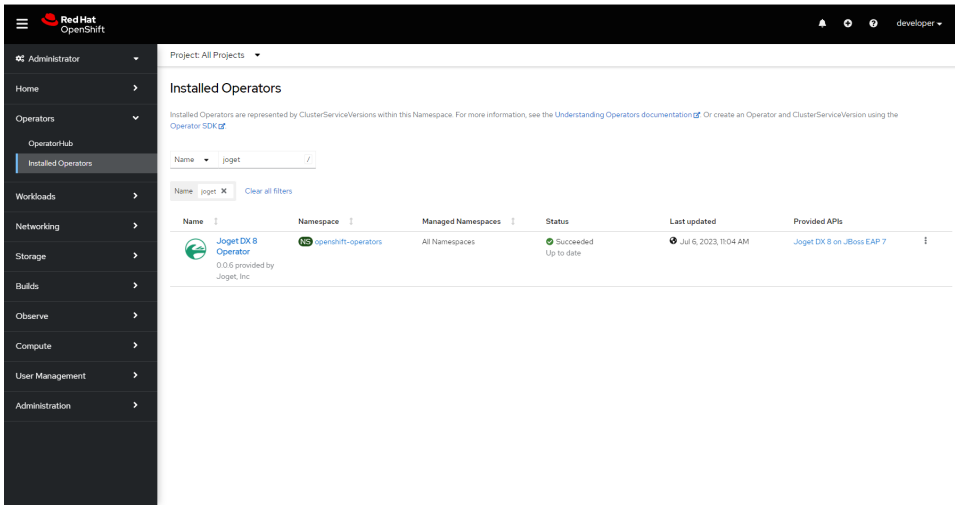
Min ready seconds
Not configured

Node selector
No selector

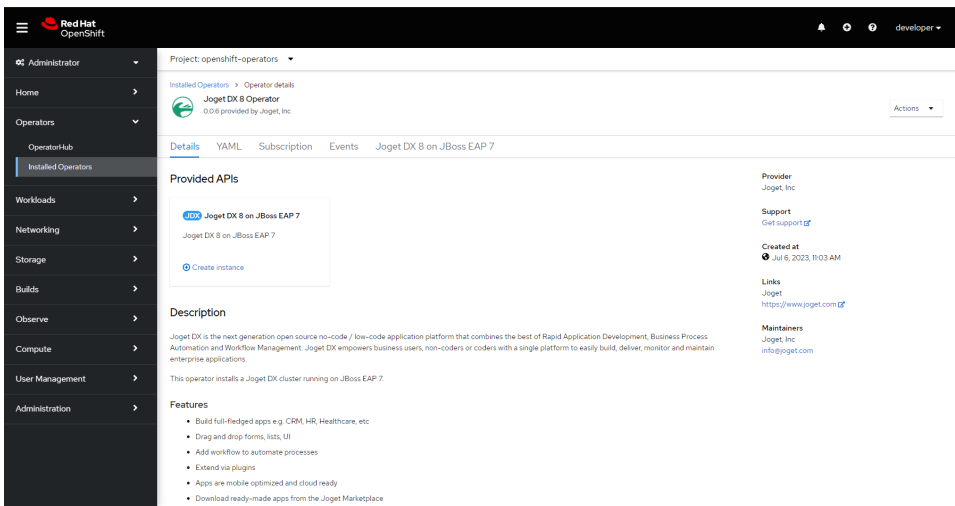
Triggers
ImageChange, ConfigChange

2.2 Deploy Joget DX 8 using the Joget DX 8 Operator

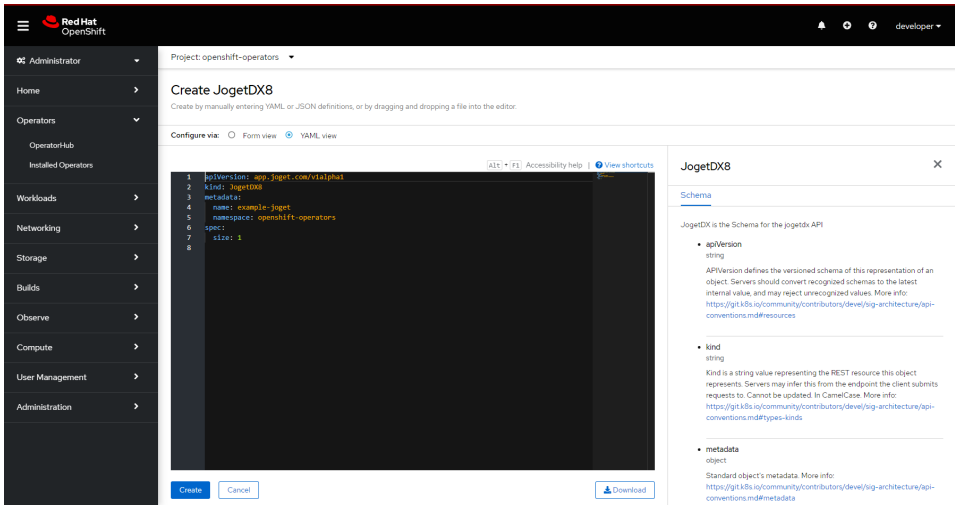
- Browse to Operators > Installed Operators.



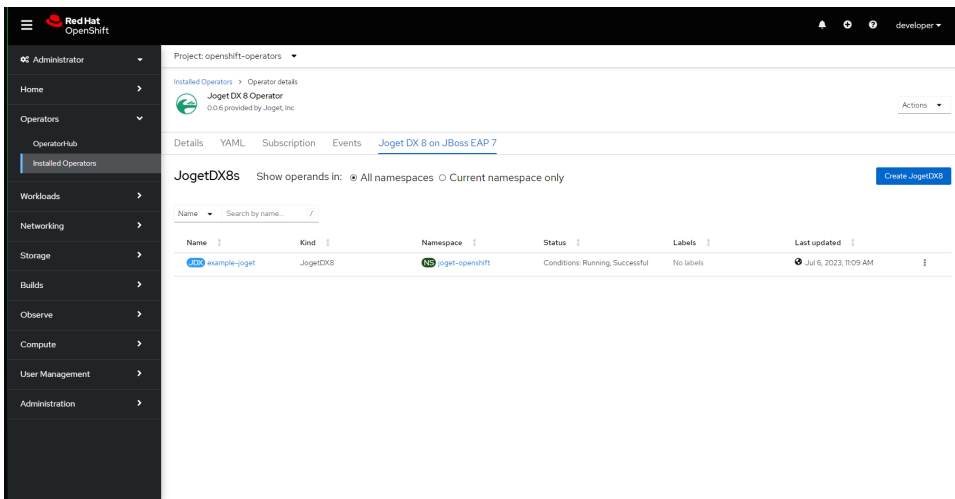
2. Select the Joget DX 8 Operator, and click on Create Instance.



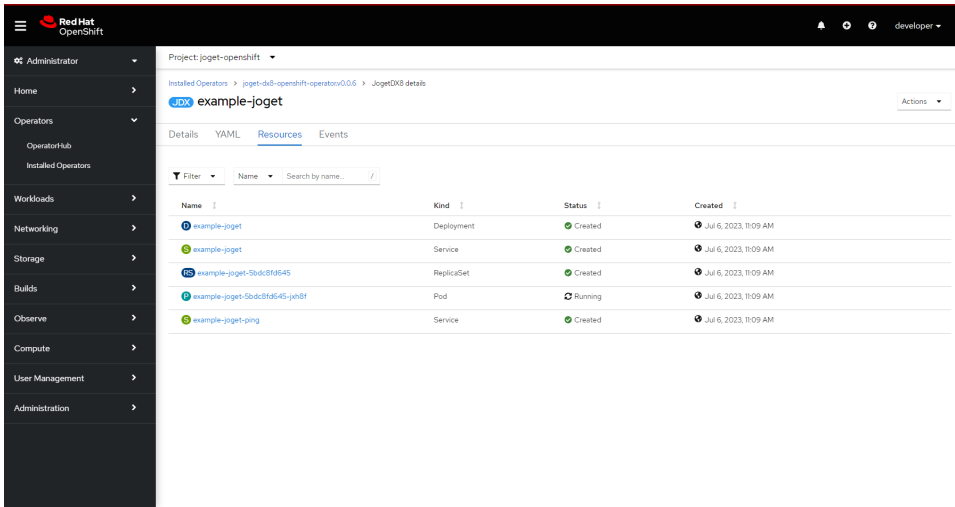
3. By default the configuration for "name" is "example-joget" and "size" is 1 (the number of required Joget instances). Modify the values as required, click Create.



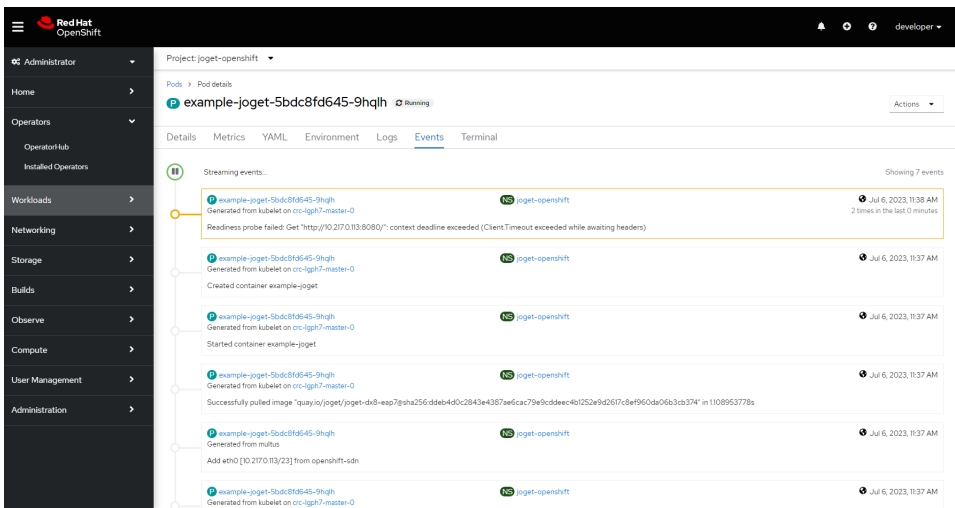
4. The Joget DX 8 Operator will automatically start to deploy the required number of Joget DX 8 instances along with all the required resources, which should take a few minutes.



5. Select the created Joget name, and click on Resources to see the resources automatically created and managed by the Joget DX 8 Operator.

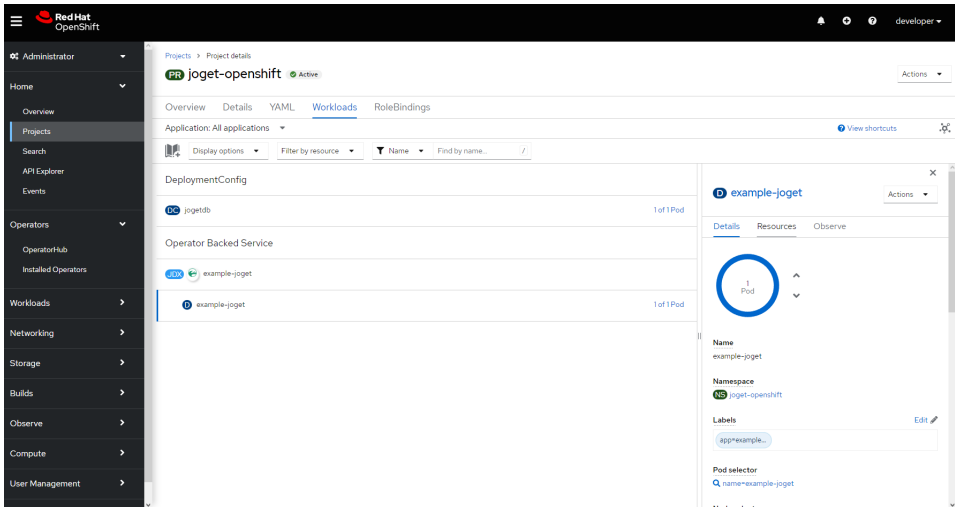


6. Click on Events to see the events as they happen

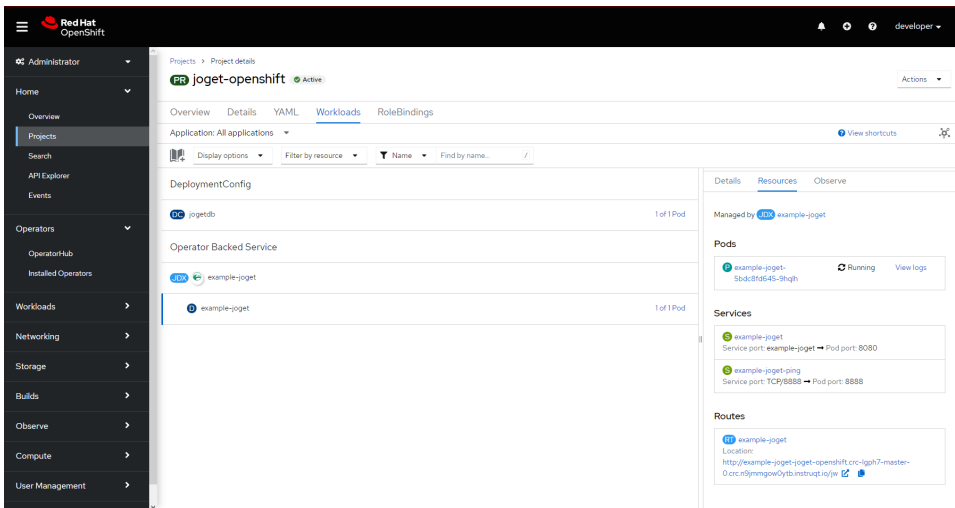


2.3 Complete One-Time Joget Database Setup


1. Browse to Home > Projects and select the Joget DX project. Click on Workloads tab and select Joget DX deployment. After a few minutes, you should see at least 1 available MATCHING PODS.



2. Select Resources to see the created Services and Routes. Copy the Location in the created Route. That is the URL to access Joget DX from an external browser.



3. Access the Joget DX 8 URL and in the Database Setup page, key in the database configuration of the database deployed earlier and click on the Save button.

JOGET DX SETUP

DATABASE SETUP

No database configuration was detected, so please configure your database settings below.
Please ensure that the database server is installed and running first. [More Information](#)

Database Type	MySQL
Database Host	jogetdb
Database Port	3306
Database Name	jwdb
Database User	joget
Database Password	*****
Include Sample Apps	<input checked="" type="checkbox"/>
Include Sample Users	<input checked="" type="checkbox"/>

Save

- a. Database Type: MySQL
- b. Database Host: the service name of the database e.g. jogetdb
- c. Database Port: 3306
- d. Database Name: the configured database name e.g. jwdb
- e. Database User: the configured username e.g. joget
- f. Database Password: the configured password e.g. joget

4. Once the setup is completed, click on Done and you will be brought to the Joget DX App Center.

