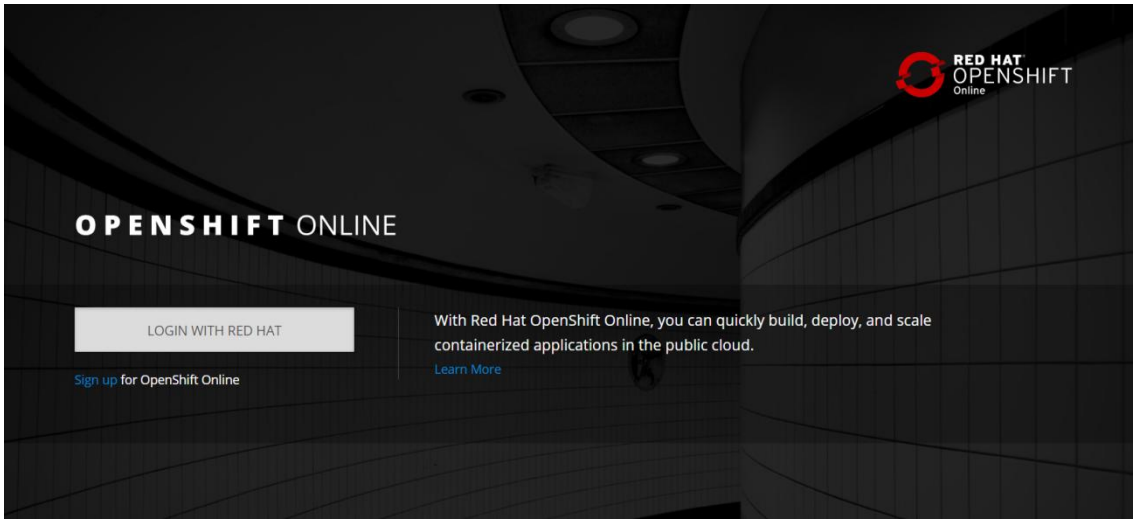
RTView DataServer in Red Hat OpenShift - Quick Start Guide

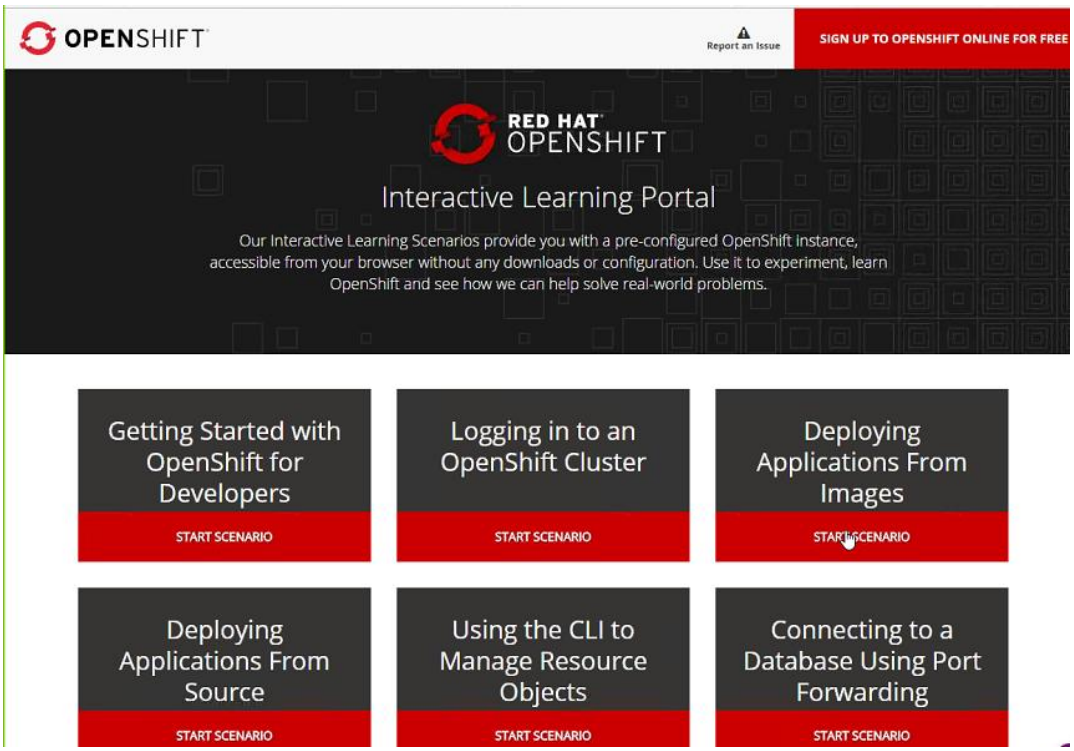
This Quick Start Guide shows you how to deploy and run RTView DataServer in Red Hat OpenShift Container Platform. It will also show you how you can push third-party data to RTView DataServer and use that data to build custom displays in RTView Cloud.

Get a Red Hat Open Shift Account

- Log in to your Open Shift account (https://manage.openshift.com/)
- If you do not have an account, sign-up for an account by clicking the 'Sign Up' link in the Open Shift online page.

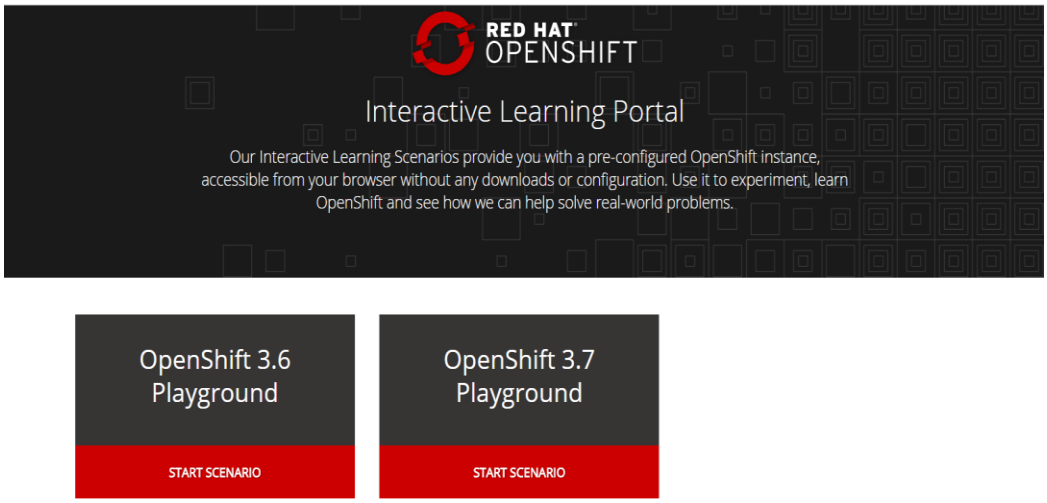


- Go to https://learn.openshift.com/introduction/ and get yourself acquainted with the following topics.
    - Getting Started with OpenShift for Developers
    - Deploying Applications from Images

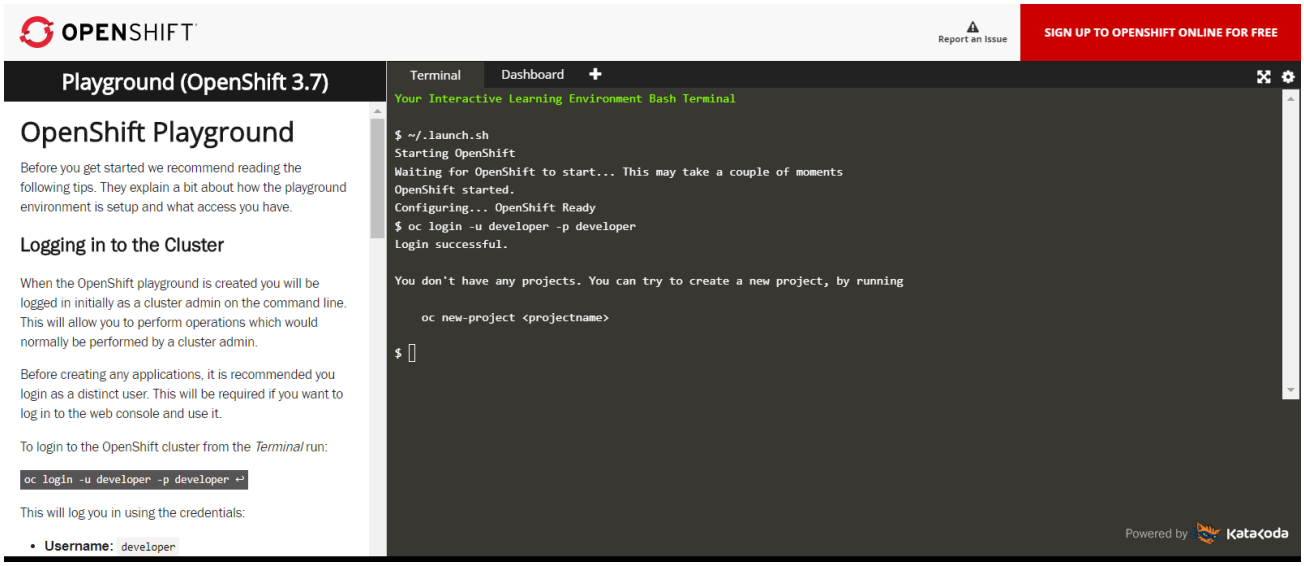


OpenShift Playground

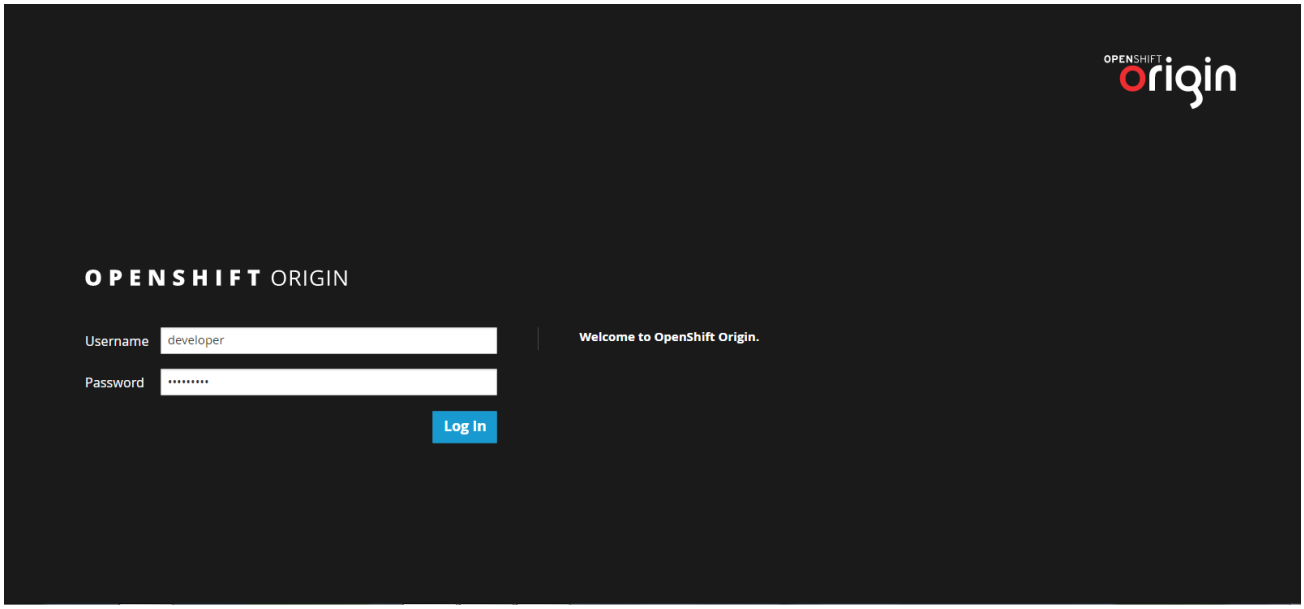
- Go to https://learn.openshift.com/ and click on 'OpenShift Playgrounds' to select a provisioned system. (e.g. OpenShift 3.7 Playground).



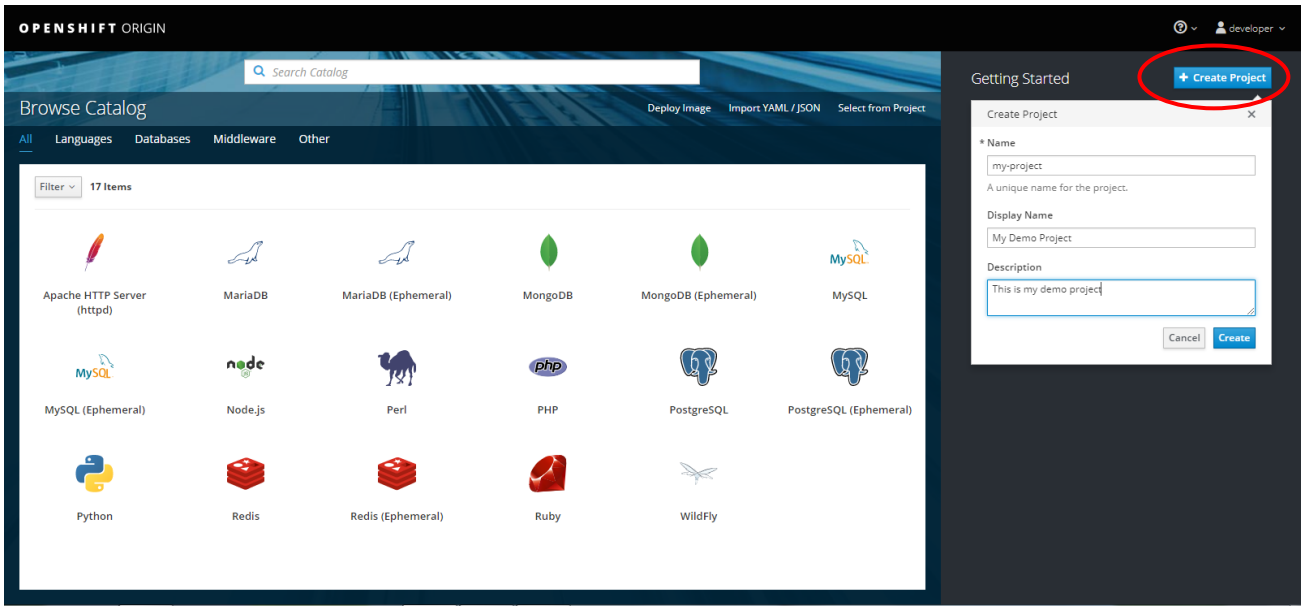
- Login to the Cluster using the '**Terminal**' as 'developer' and create a new project (e.g. my-project). You can also use the 'Dashboard' to complete this step, which is described below.



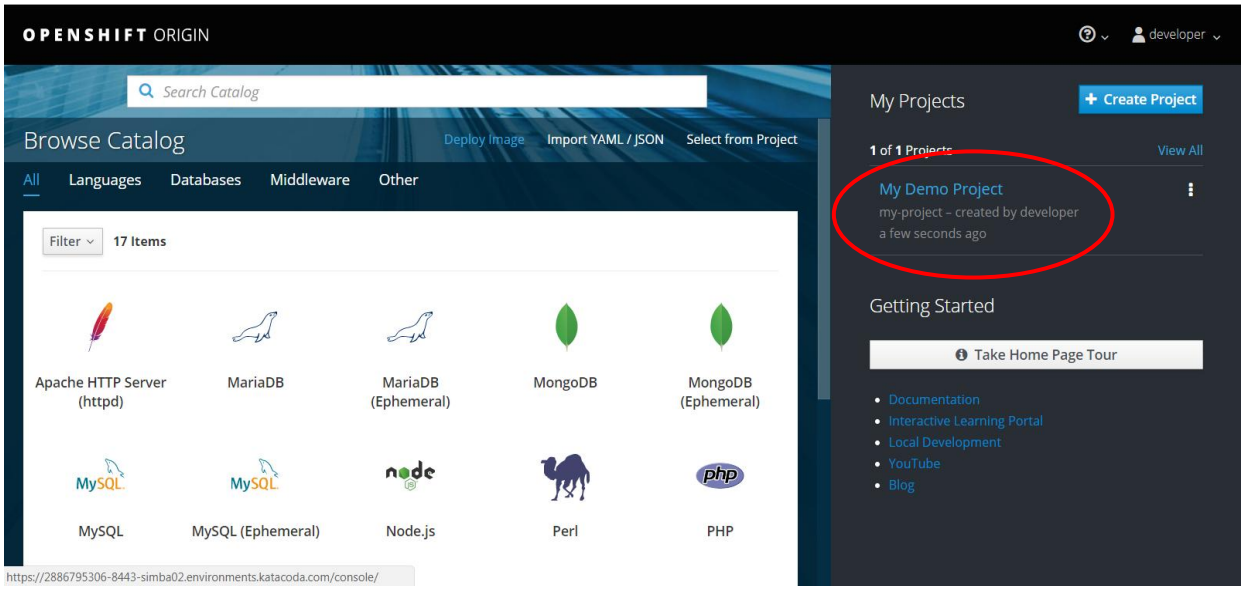
- Click on the '**Dashboard**' to login to Open Shift Origin, the web console. (login: developer/developer).



- Click **'Create Project'** to create a new project by filling in your project details (e.g. my-project).



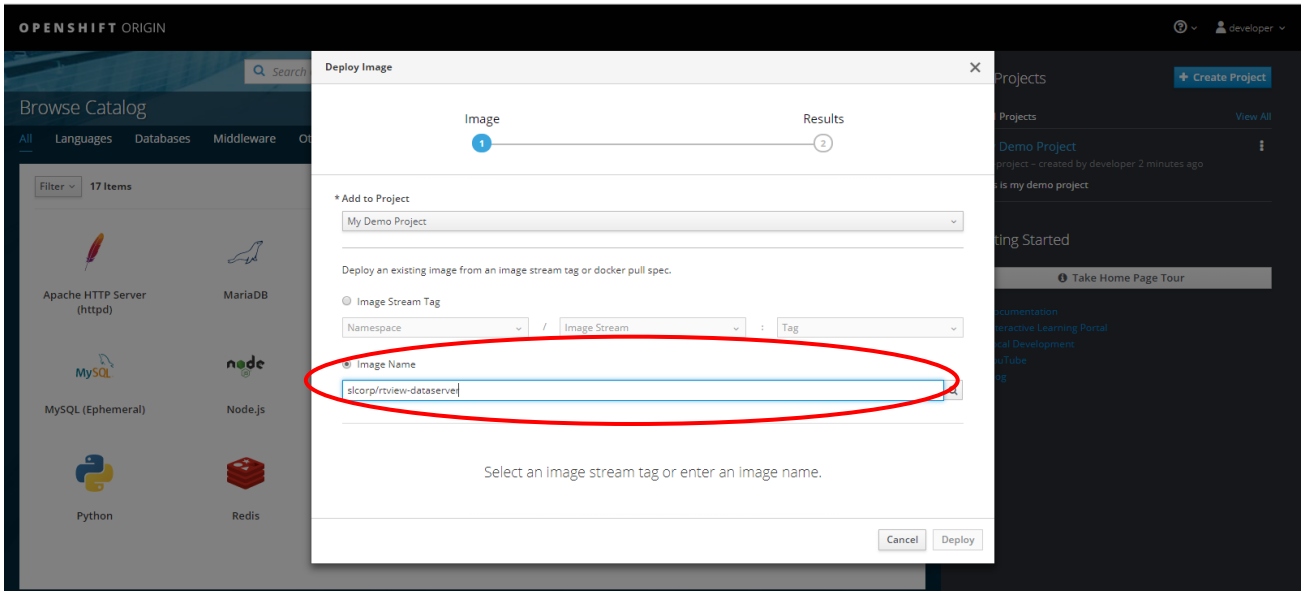
- After entering the details of your project, click the '**Create**' button to create your new project. You can see the new project as shown below.



- Click **'Deploy Image'** link.

- Enter the details in the **'Deploy Image'** dialog as shown below.
    - Select your project (e.g my-project).
    - Enter 'Image Name' as registry.connect.redhat.com/slcorp/rtview-dataserver.
    - After selecting the image name , click on the magnifying class to confirm the image metadata.

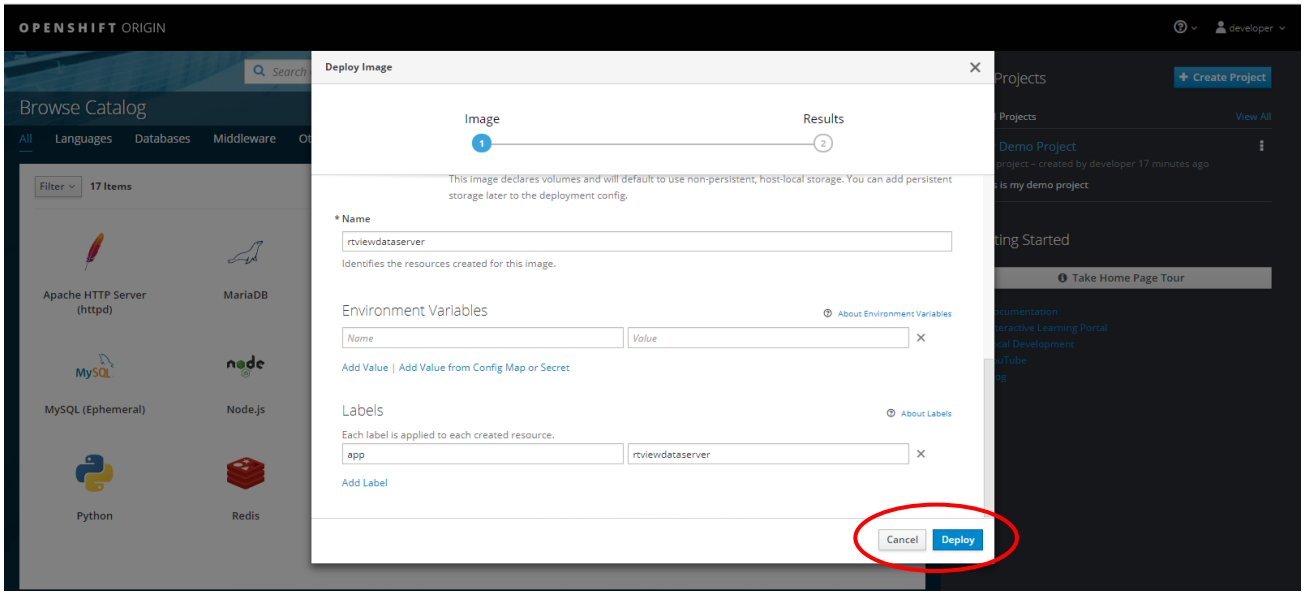
- About Red Hat Connect Container Registry
    - You can download the RTView DataServer image in the Red Hat Container catalog. https://access.redhat.com/containers/?type=products#/search/
    - In order to use this RTView DataServer image, you need:
        - Red Hat Registry Authorization
        - Accept RedHat subscription agreement and Red Hat Connect Certified Container Partner's (SL Corp) terms.
        - Review the following product documentation located at https://access.redhat.com/containers/?tab=images&platform=openshift#/registry.connect.redhat.com/slcorp/rtview-dataserver



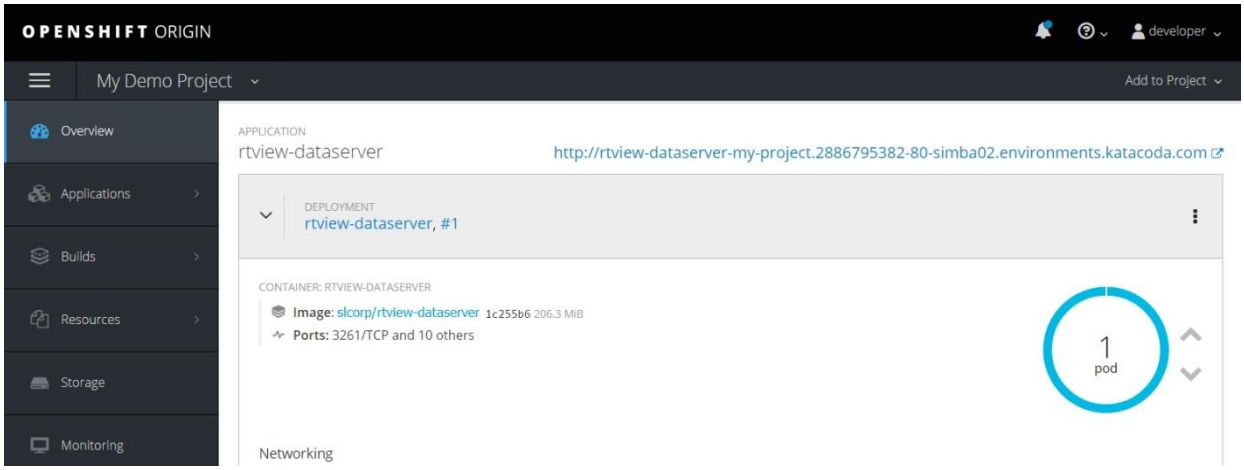
- After finding the image, enter the '**Name**' as 'rtview-dataserver'.

  Note: If the image name is xxx/rtview-dataserver, then the name will be rtview-dataserver.

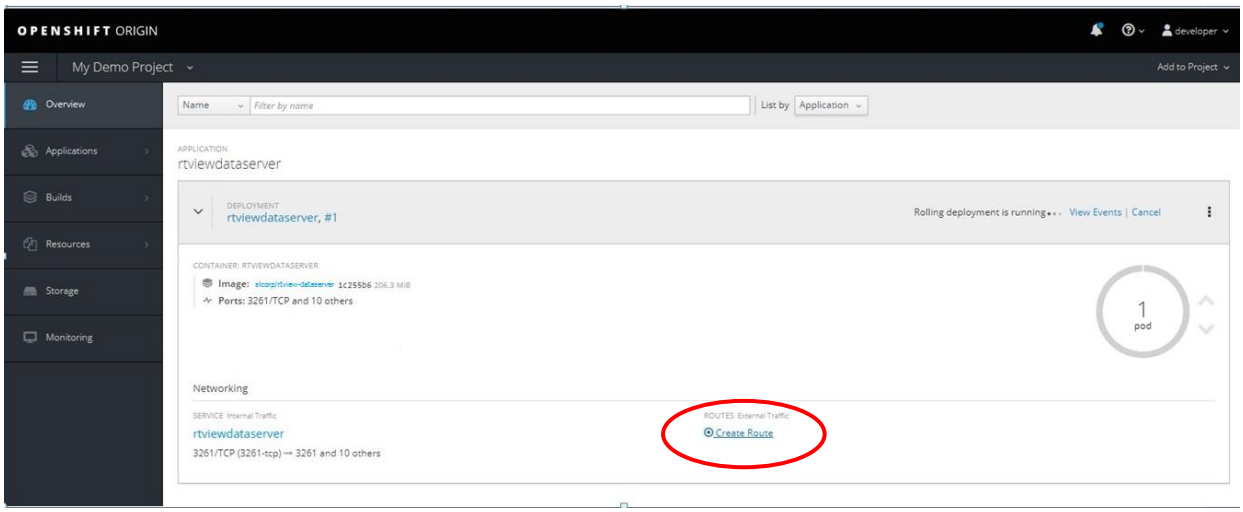
- Click the '**Deploy**' button to deploy the RTView DataServer image.



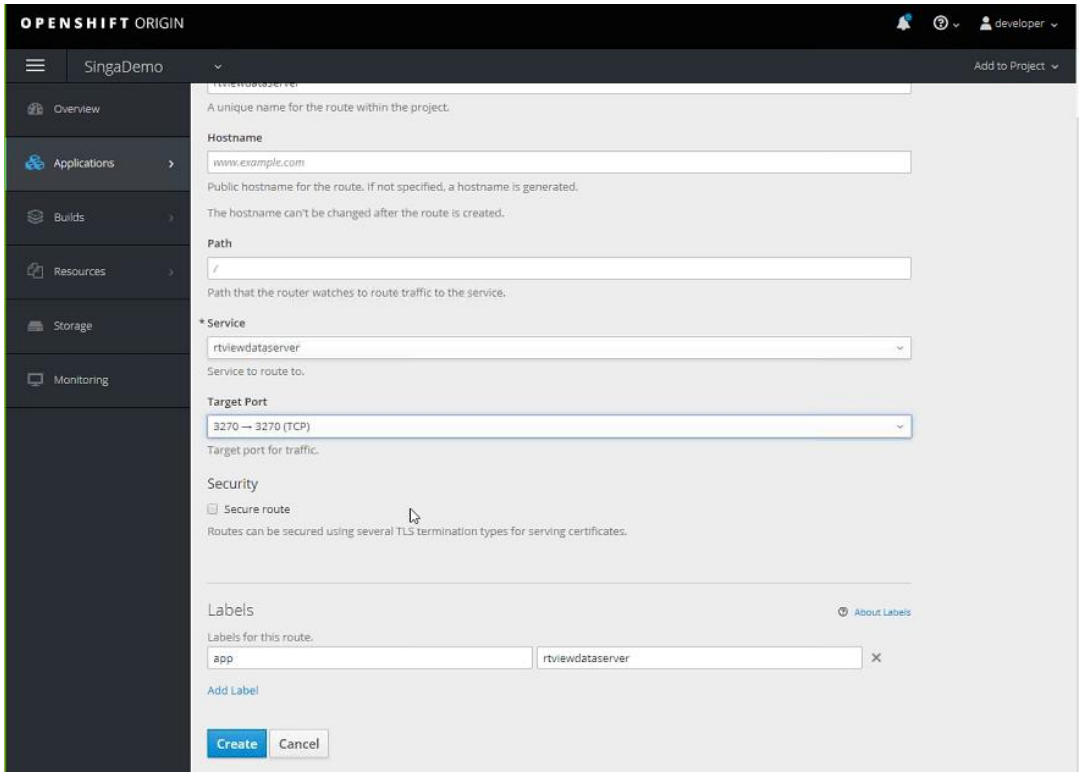
- RTView DataServer image is now deployed in OpenShift. You can see the newly deployed image in your project page.



- Create a Route for this image, by clicking **'Create Route'**. This step is needed so that the RTView DataServer can be accessed from outside OpenShift.

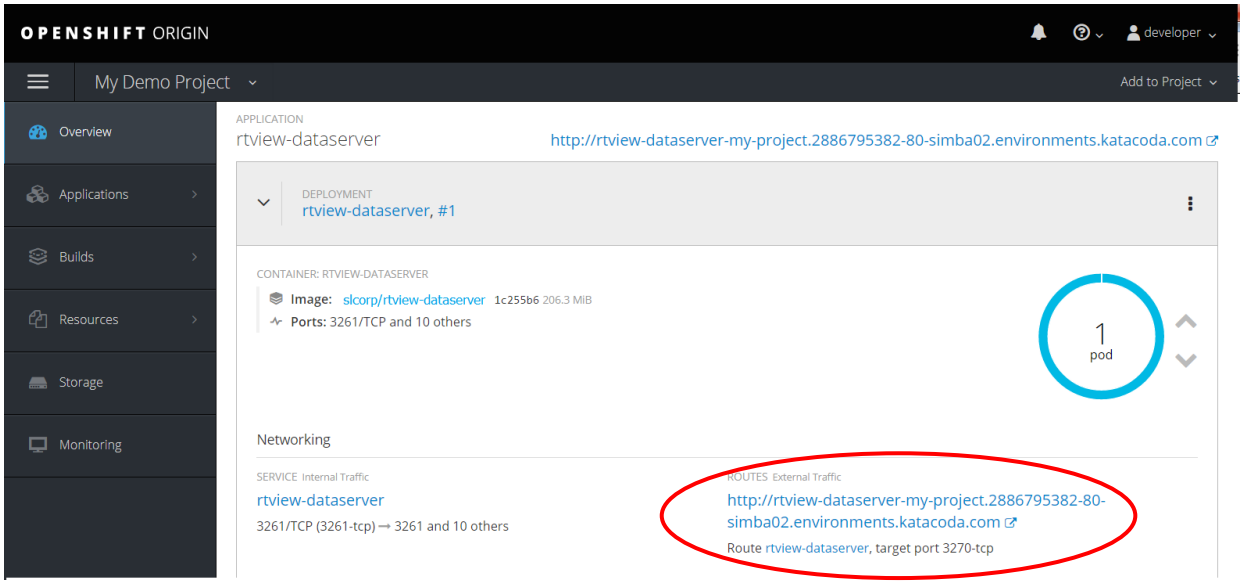


- Enter '**Service**' name as 'rtview-dataserver' and 'Select **Target Port'** as 3270 from the **Target Port** drop down. Click '**Create**' button to create the new route.



- You can now see the newly created Route for your RTView DataServer (highlighted in red).

  Note: Your newly created route will work only if the pod is running. You need to give some time for OpenShift to deploy and run your route. The pod is ready when its color turn blue as seen in the screenshot below.



Testing

- You can test by opening the above web link in a browser and run a rtvquery on the URL

  <YOUR_ROUTE_URL>/ rtvquery/cache/RTViewDs/Tables?fmt=json

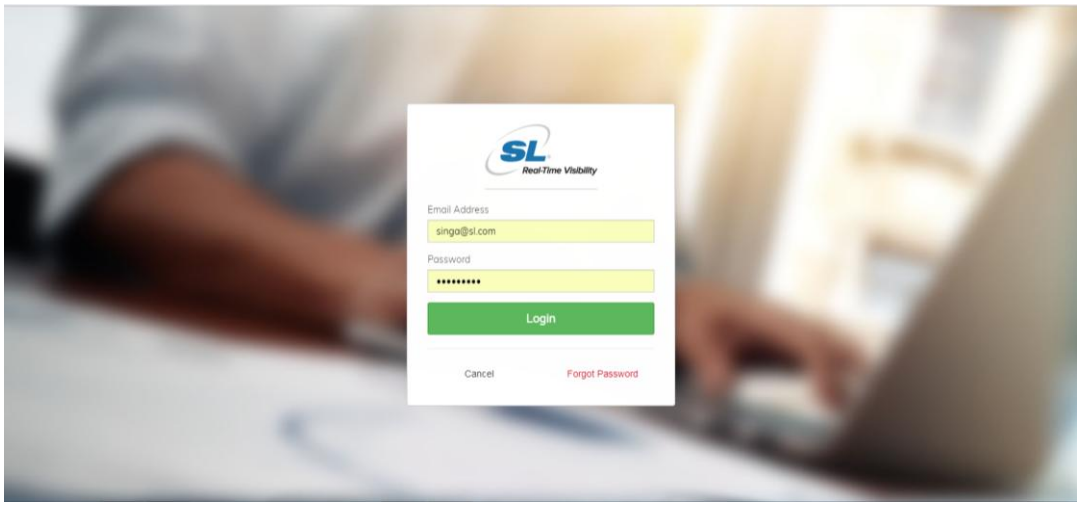
  (e.g. http://rtview-dataserver-my-project.2886795382-80-simba02.environments.katacoda.com/rtvquery/cache/RTViewDs/Tables?fmt=json**)**

  You can view the contents of your RTView DataServer cache with the above URL (i.e. assuming your RTView DataServer is running and its Caches are populated with data).

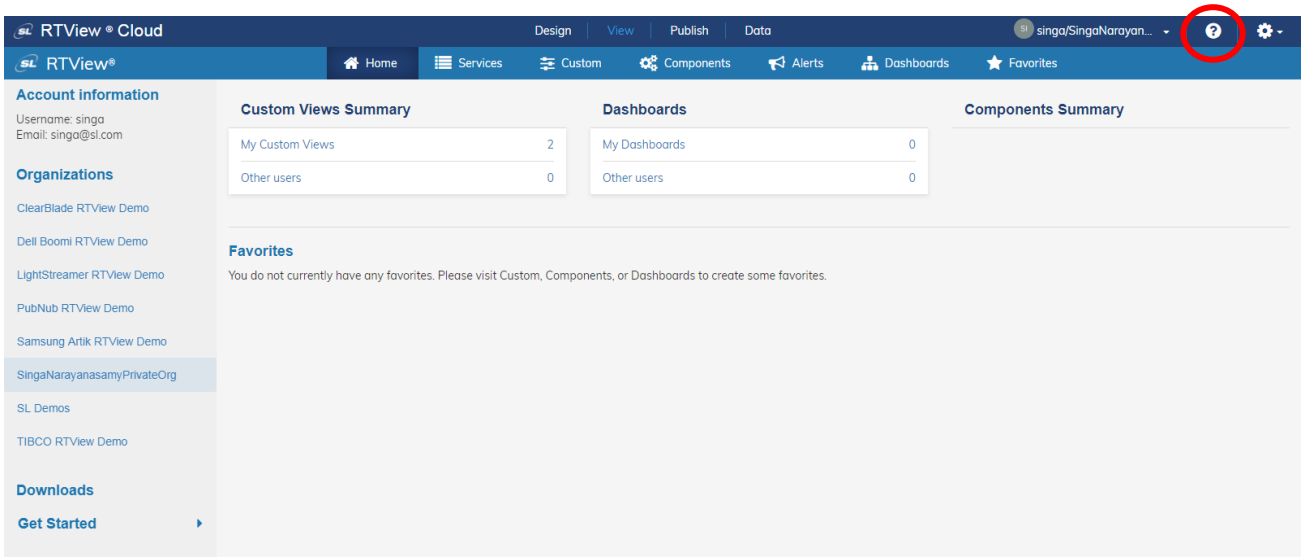
- Your route URL is pointing to the RTView DataServer running on port 3270.

Get a RTView Cloud Account

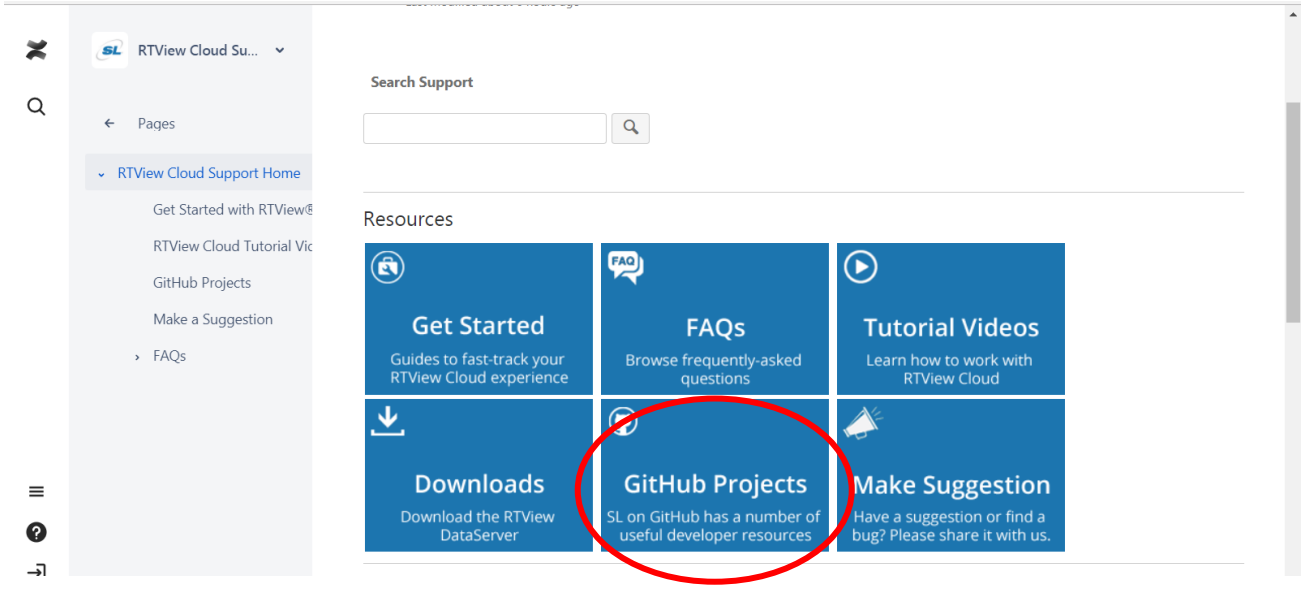
- Log in to your RTView Cloud account (https://rtviewcloud.sl.com).
- If you do not have a RTView Cloud account, sign-up for an account at http://rtviewcloud.sl.com/register and follow the instructions in your email to activate your account.



- Click on the '**?**' icon at upper right to go to the '**RTView Cloud Support**' page.



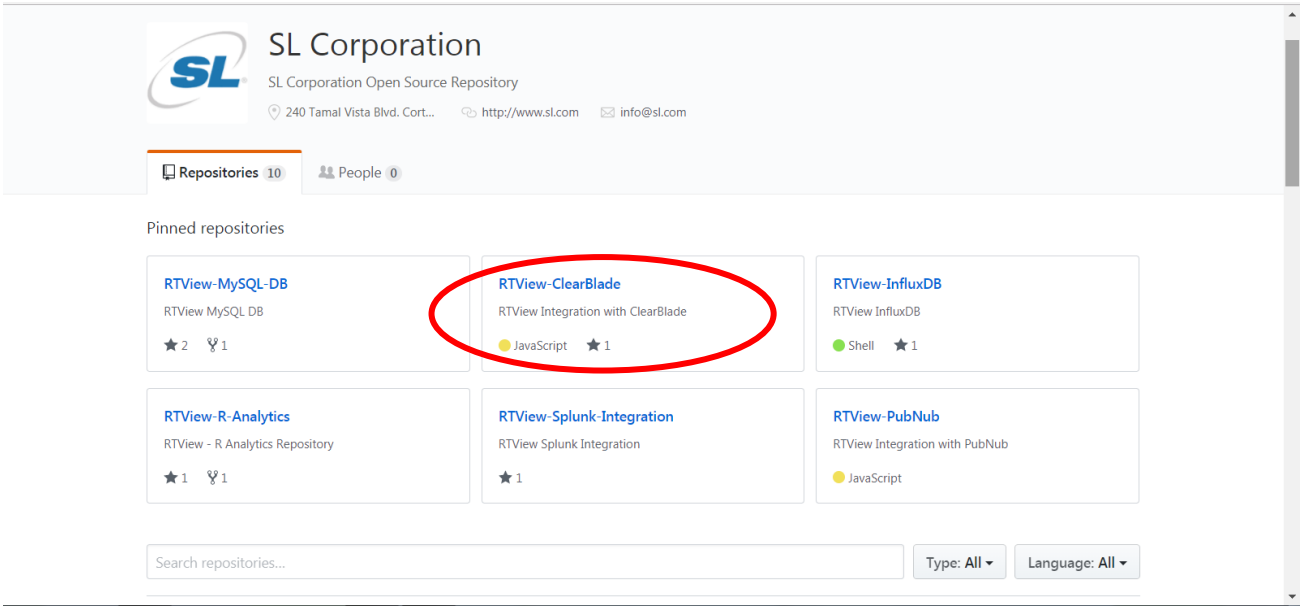
- Click the '**Github Projects**' section in the 'RTView Cloud Support Page'.



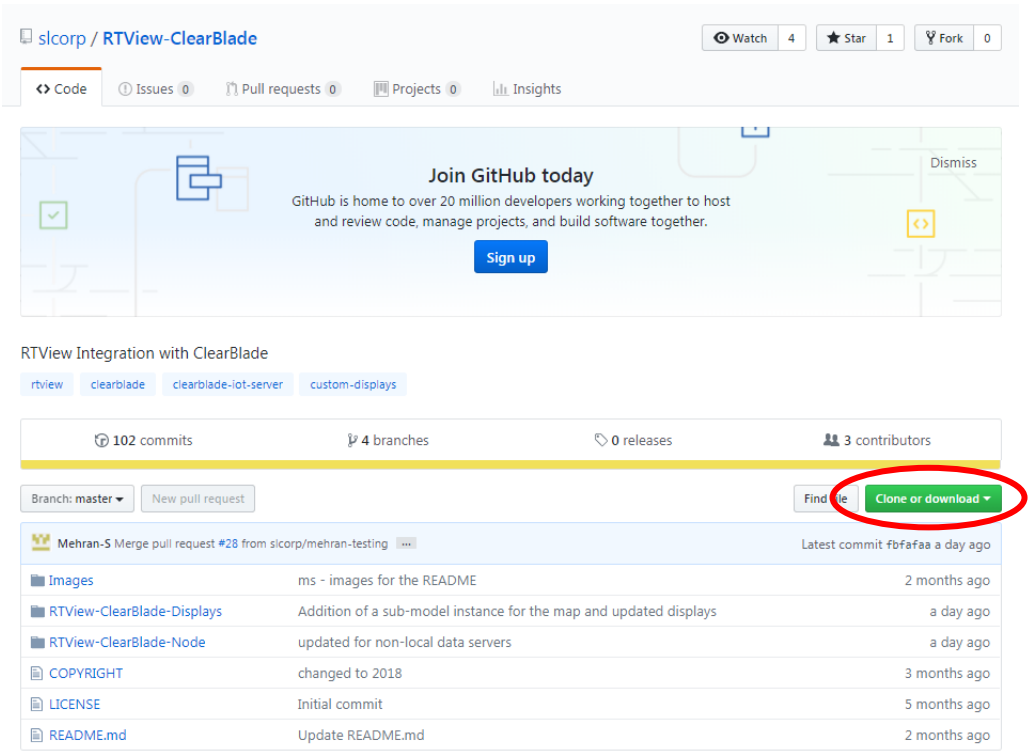
- While you are in the https://github.com/slcorp page, select one of the IoT Projects listed.

  You are welcome to choose any of the RTView IoT projects listed in our Github page. Each IoT project has its own README file that describes all the steps necessary to run the project. These projects are RTView-Artik, RTView-ClearBlade, RTView-LightStreamer and RTView-PubNub.

  For this example, we'll be using 'RTView ClearBlade' IoT project. Click on the **RTView-ClearBlade** link.



- Click on the **'Clone or download'** button to get a copy of the project to your computer.

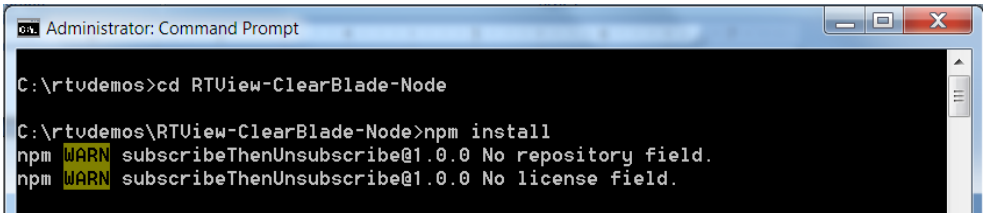


Run the RTView ClearBlade Connector

- To install the connector program:

```
cd RTView-ClearBlade-Node

npm install
```



- To start the program:

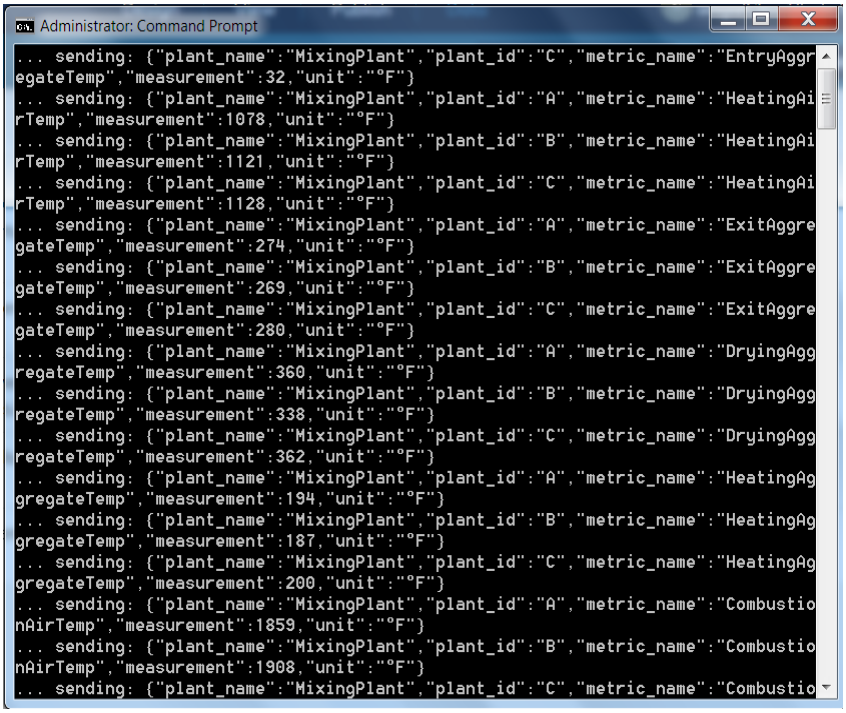
```
node rtview_clearblade_feed.js http://<YOUR_ROUTE_URL>/rtvpost
```

e.g.

```
node rtview_clearblade_feed.js http://rtview-dataserver-my-project.2886795382-80-simba02.environments.katacoda.com/rtvpost
```

Note that your route URL might be different from the above example depending on your project and environment settings in OpenShift. Please get the correct route URL from OpenShift and use it here.

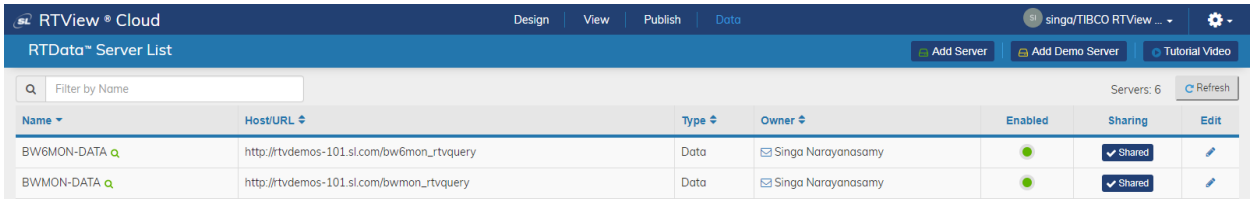
You will see messages printed in the console showing successful subscriptions made.



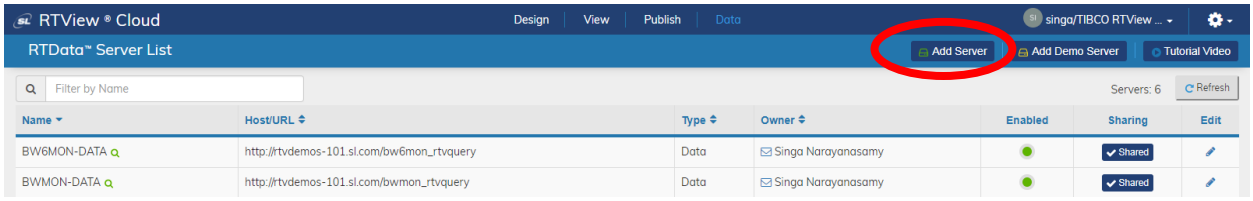
Setup RTView DataServer in RTView Cloud

- Login to RTView Cloud and click on the top menu '**Data**'.

This will take you to the **RTData Server List** page.



- Click on **Add Server** button. This will bring up a dialog to enter name, URL and type of the data server.



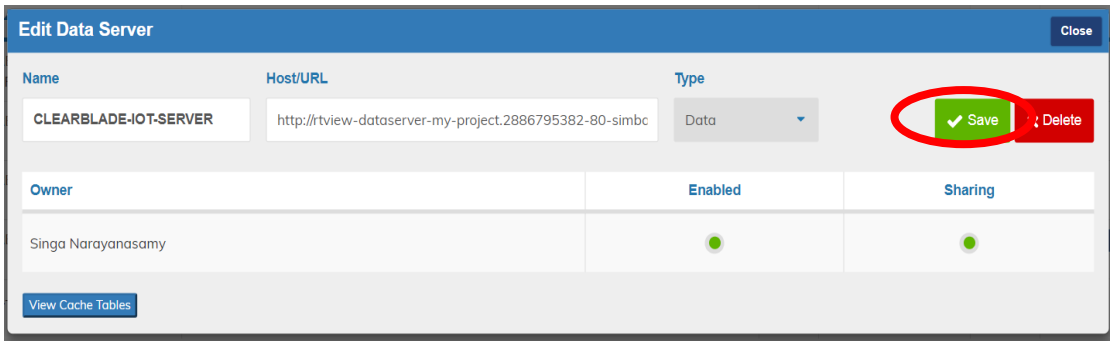
  - For Name, type: CLEARBLADE-IOT-SERVER
  - For Host/URL, type: <*YOUR_ROUTE_URL*>/rtvquery

  (e.g. http://rtview-dataserver-my-project.2886795382-80simba02.environments.katacoda.com/rtvquery)

  Note that your route URL might be different from the above example depending on your project and environment settings in OpenShift. Please get the correct route URL from OpenShift and use it here.

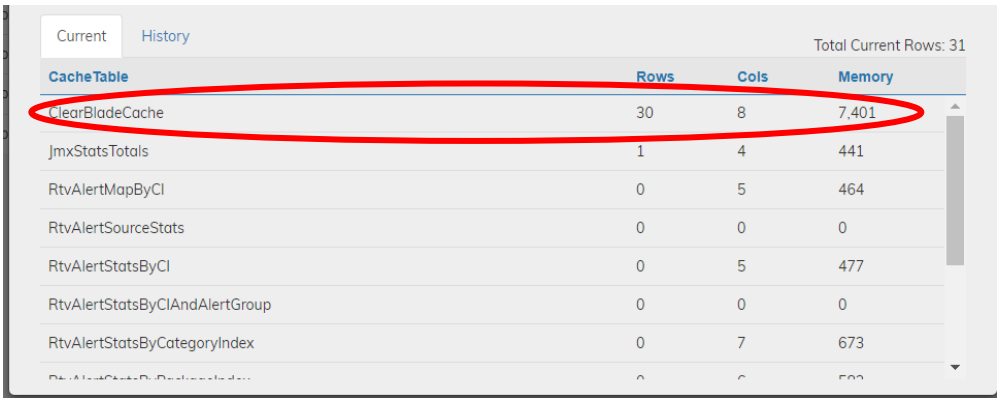
  - For Type, select 'Data'.

- After filling in the details, click on **Save Added Servers** button.



- To test your RTView DataServer connection, click the green magnifying glass next to the CLEARBLADE-IOT-SERVER. This will bring up the **RTView DataServer - Cache Tables** dialog.

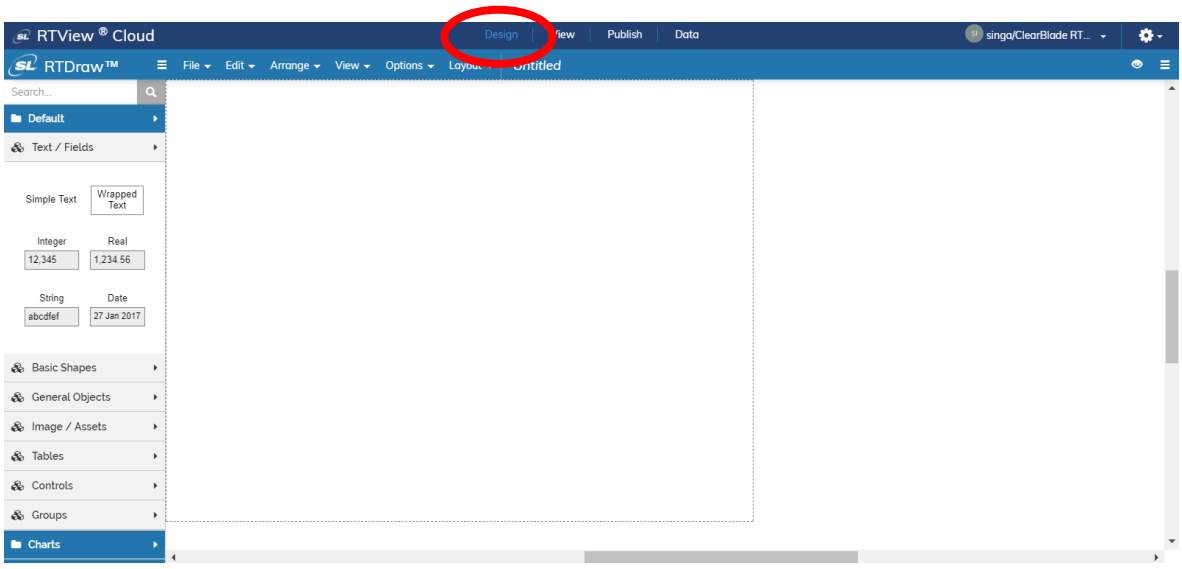
    - You should see "***Connected***" under Connection Status.
      You should see all the available Caches listed under ***CacheTable***.



- Close the dialog.

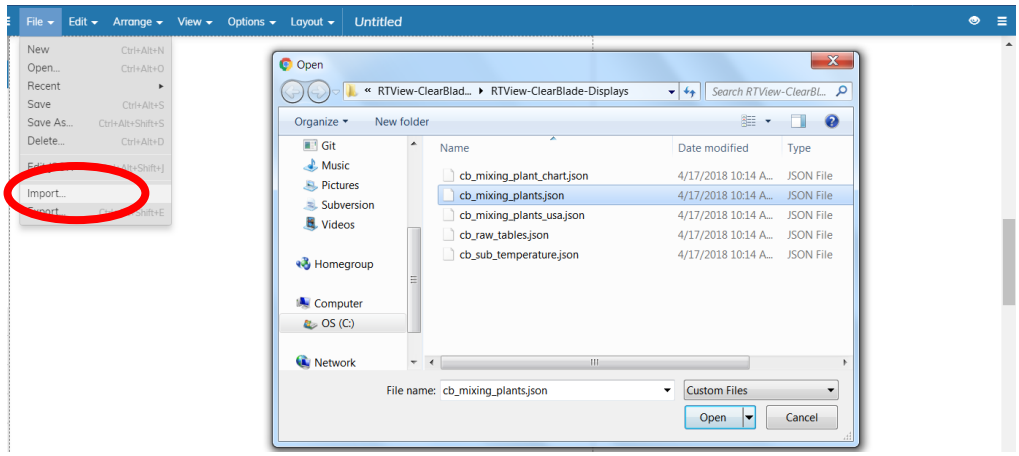
Import and View RTView ClearBlade Displays in RTView Cloud

- Login to RTView Cloud and click on the top menu '**Design**' This will take you to **RTDraw** page.

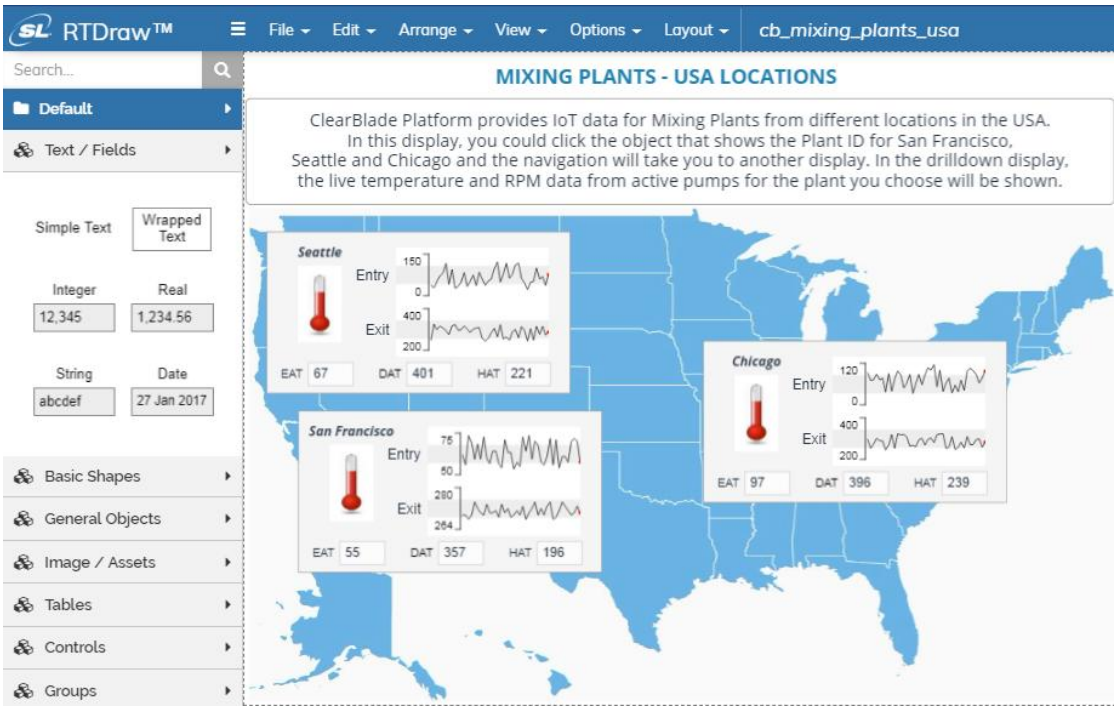


- Click '**File**' menu and select '**Import...**'.

Navigate to '**RTView-ClearBlade-Displays**' and choose one or more of the displays to import.



  - After completing the import, click '**File**' menu and select '**Open**'. Choose one of the displays to open (e.g. cb_mixing_plants_usa.json).
  - You will see the display filled with data from RTView ClearBlade connector program.
  - You can repeat this step to see data in other displays as well.



CONGRATULATIONS!

You've successfully completed the following tasks:

- **Deployed and ran the RTView DataServer in Red Hat OpenShift.**
- **Send third-party data to RTView DataServer in OpenShift.**
- **Viewed pre-built displays in RTView Cloud using this data.**