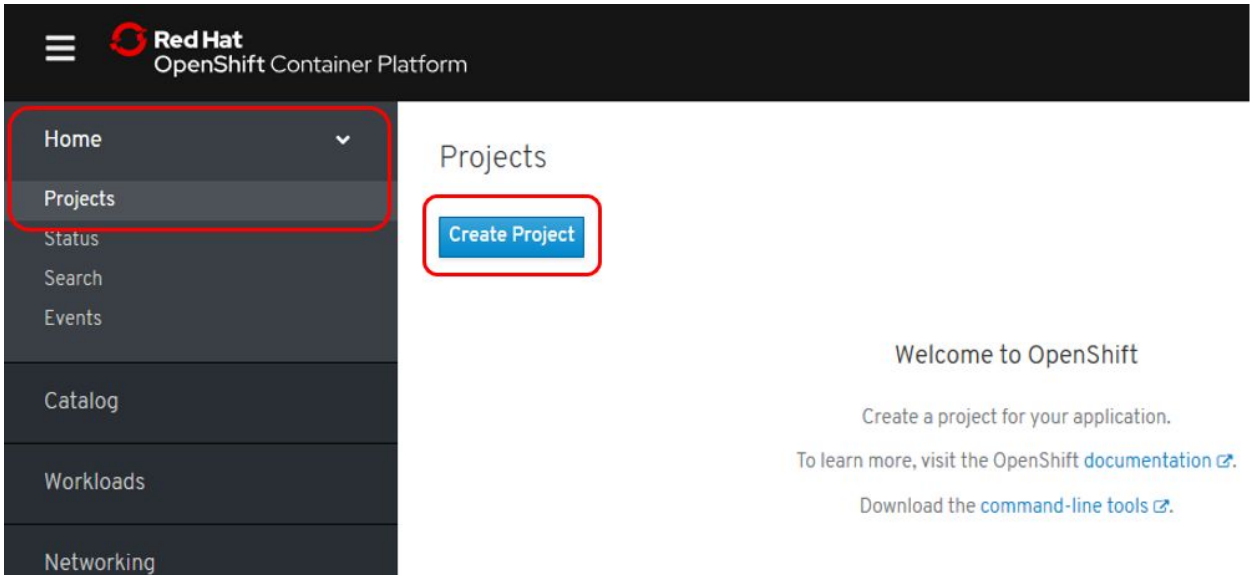
Openshift 4 Workshop Jenkins Pipeline

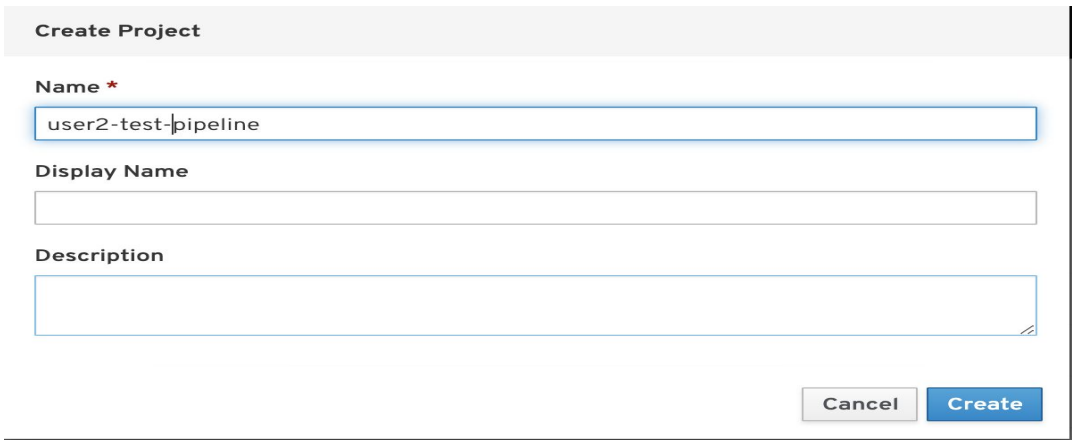
Deploy Jenkins Pipeline

In this workshop we will leverage the Openshift Console to create a new project, create a Jenkins deployment and then setup a build pipeline for a NodeJS application. Log into Openshift Console - the Instructor will provide the URL and your user. Login with user<assigned #> and password is **r3dh4t1!**

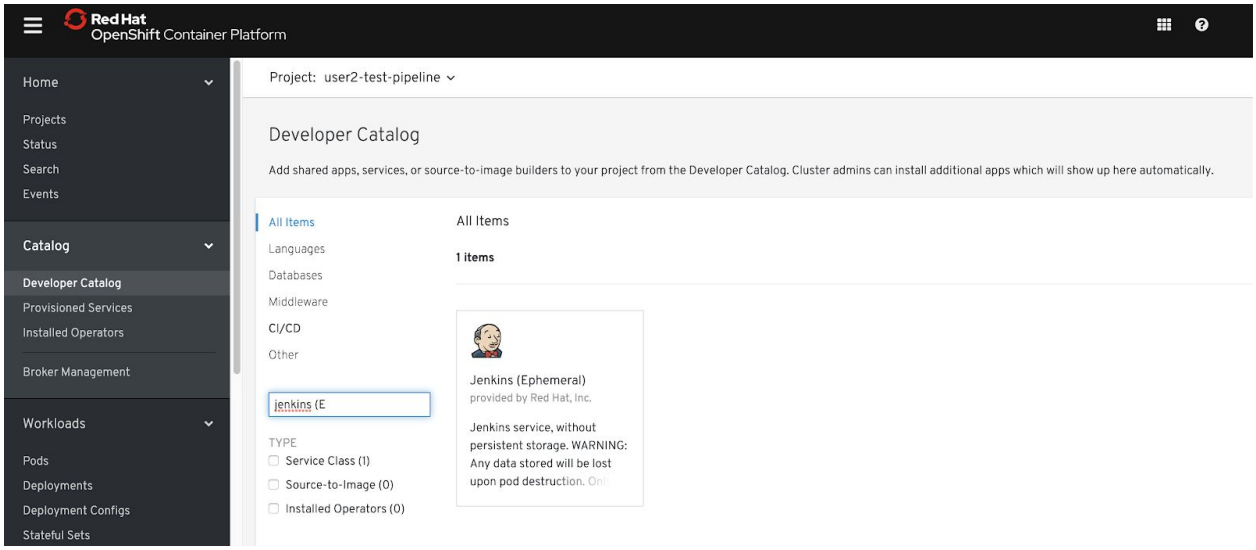
1. Click on the **Home->Projects** menu, then select the **Create Project** button.



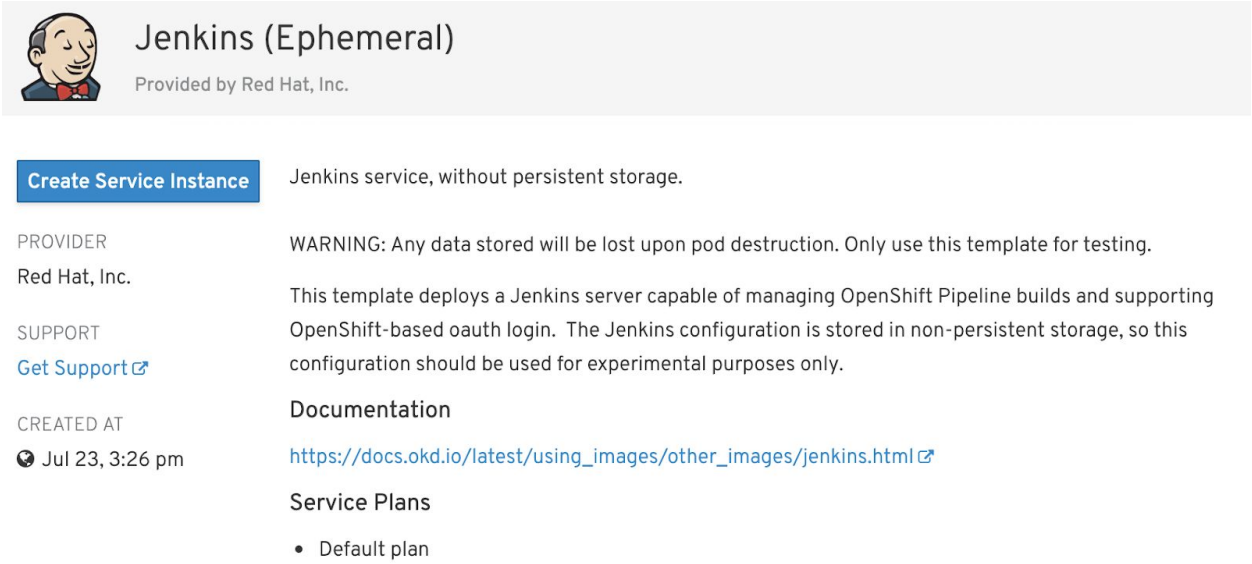
2. Populate **Create Project** dialog with the following information - The project to create is user<assigned#>-test-pipeline



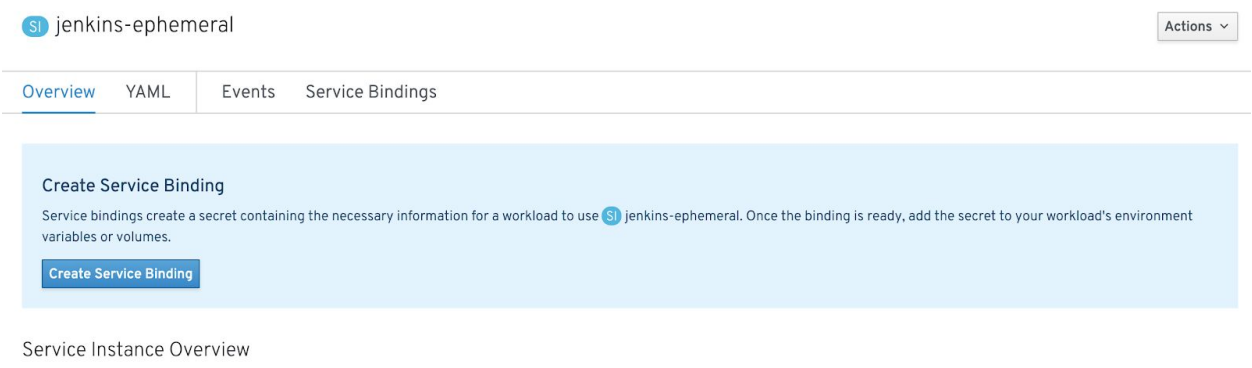
3. Now search for Jenkins in the catalog, click on the **Add->Browse Catalog** button. Select the Jenkins (Ephemeral).



4. Click on Jenkins and create the Service Instance.



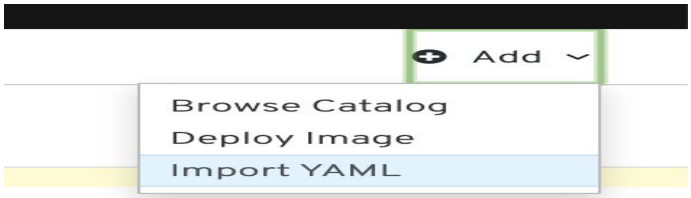
5. Create the Service Binding and accept the default, and click once again.



6. Wait until the Jenkins pod is up and Running. If the ContainerisNotReady like this, then wait.

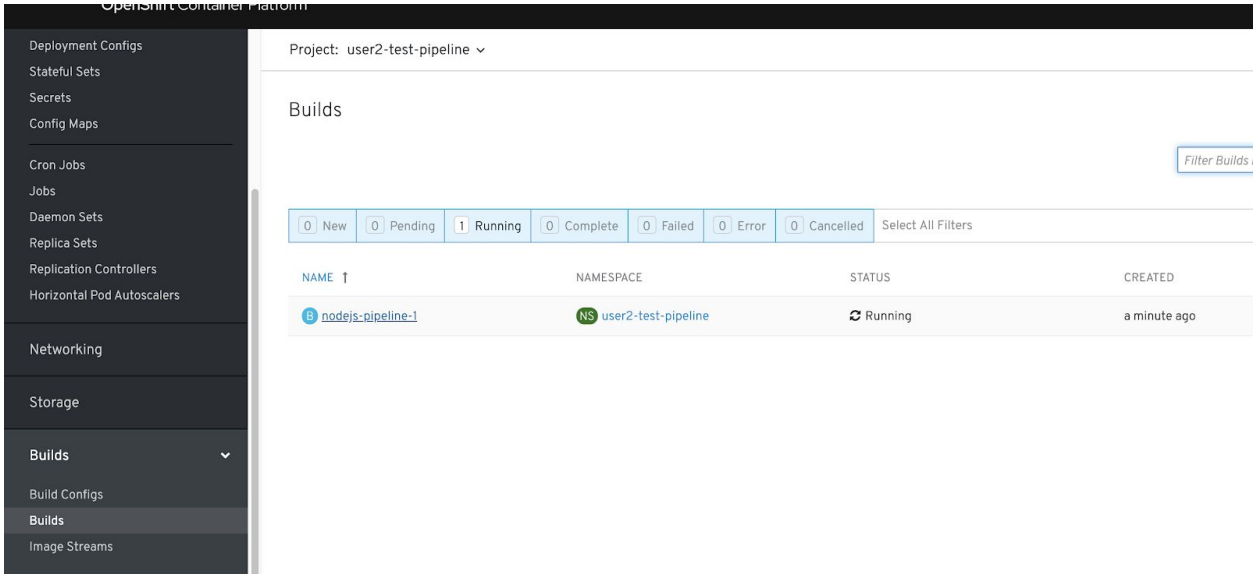
7. Now when We get this, We are ready to go.

8. Select Add on the upper right and select the “import yaml”.

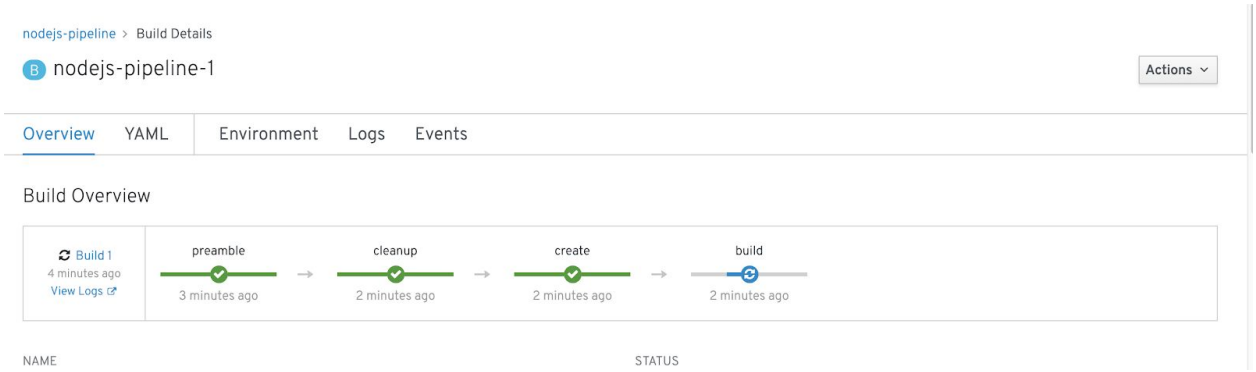


9. Copy the contents from https://raw.githubusercontent.com/glamperi/OCP4WORKSHOP/master/nodejs-sample-pipeline.yaml into the window. Make sure to change the namespace in the text to the namespace of the project. After the edit, click create.

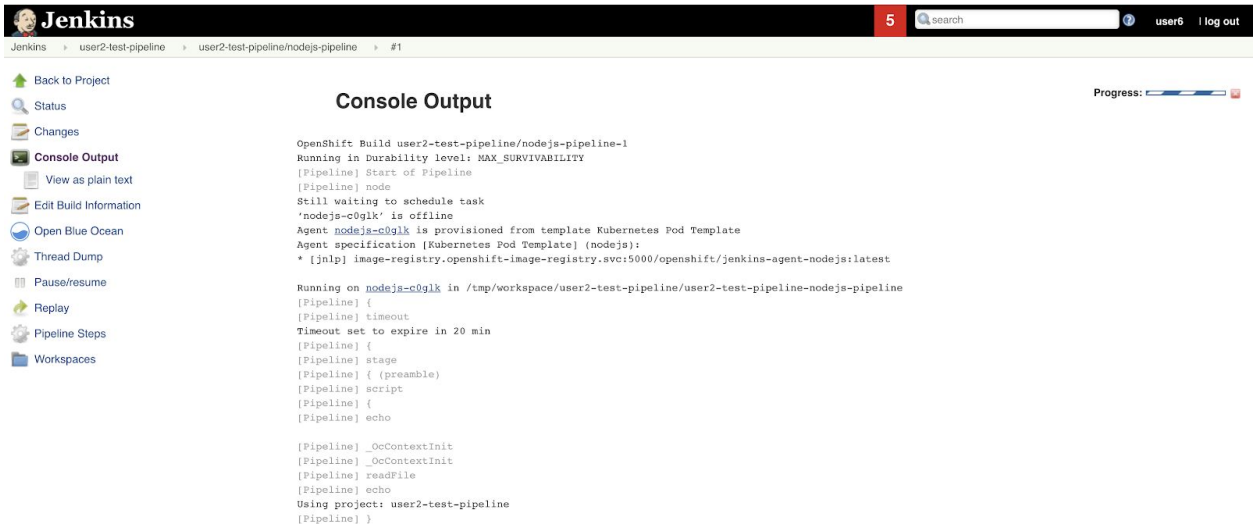
10. You will see the pipeline build under builds now.



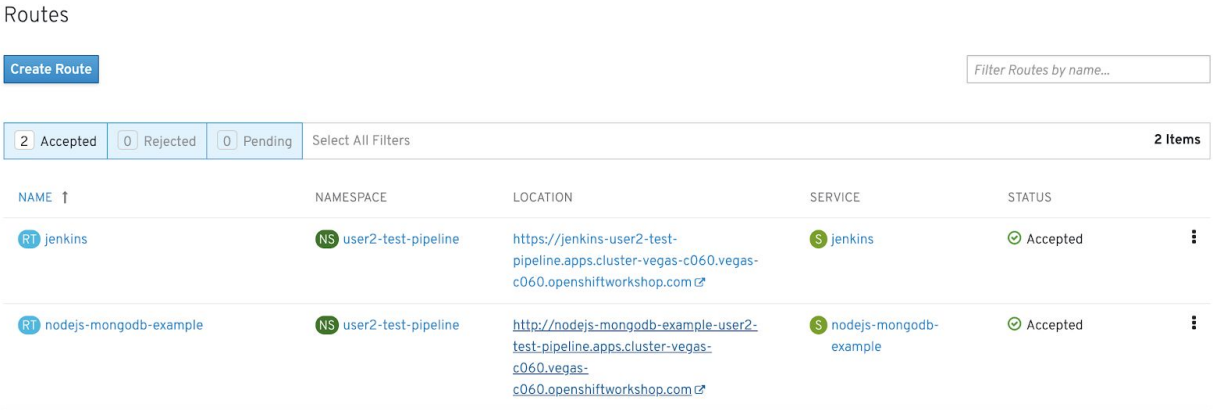
11. Click into the nodejs-pipeline-1 and see the progress. Going to the Logs will bring you to the Jenkins Console, use the same login as to the Openshift Console. This may take about 10 minutes to build with the given CPU/Memory setup for this particular lab.



12. Here is what the Jenkins Console will look like.



13. Once the build is done and the backing mongodb is deployed as well. Find the NodeJS frontend route from Network->Routes.



14. Click on the Route and you should see the following in the Web Browser.

Welcome to your Node.js application on OpenShift

How to use this example application

For instructions on how to use this application with OpenShift, start by reading the Developer Guide.

Deploying code changes

The source code for this application is available to be forked from the OpenShift GitHub repository. You can configure a webhook in your repository to make OpenShift automatically start a build whenever you push your code:

1. From the Web Console homepage, navigate to your project
2. Click on Browse > Builds
3. Click the link with your BuildConfig name
4. Click the Configuration tab
5. Click the "Copy to clipboard" icon to the right of the "GitHub webhook URL" field
6. Navigate to your repository on GitHub and click on repository settings > webhooks > Add webhook
7. Paste your webhook URL provided by OpenShift in the "Payload URL" field
8. Change the "Content type" to 'application/json'
9. Leave the defaults for the remaining fields — that's it!

After you save your webhook, if you refresh your settings page you can see the status of the ping that Github sent to OpenShift to verify it can reach the server.

Note: adding a webhook requires your OpenShift server to be reachable from GitHub.

Working in your local Git repository

If you forked the application from the OpenShift GitHub example, you'll need to manually clone the repository to your local system. Copy the application's source code Git URL and then run:

```
$ git clone <git_url> <directory_to_create>

# Within your project directory
# Commit your changes and push to OpenShift

$ git commit -a -m 'Some commit message'
$ git push
```

After pushing changes, you'll need to manually trigger a build if you did not setup a webhook as described above.

Built on

OPENSHIFT by Red Hat

Managing your application

Documentation on how to manage your application from the Web Console or Command Line is available at the Developer Guide.

Web Console

You can use the Web Console to view the state of your application components and launch new builds.

Command Line

With the OpenShift command line interface (CLI), you can create applications and manage projects from a terminal.

Development Resources

- OpenShift Documentation
- Openshift Origin GitHub
- Source To Image GitHub
- Getting Started with Node.js on OpenShift
- Stack Overflow questions for OpenShift
- Git documentation

Request information

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DB Connection Info:

Type: MongoDB
URL: mongodb://172.30.148.142:27017/sampledb