

Advanced Deployment with OpenShift - Homework

This is a document to provide the necessary information about running the script which is used to deploy the OpenShift cluster and complete the CICD pipeline which is needed to successfully complete the homework assignment.

Git repository with the homework scripts:

https://github.com/thednd1992/ocp_advanced_deployment_homework.git

Step	Description	Command
1	Login to VM	<code>ssh -i ~/.ssh/id_rsa djordje.gajisin-devoteam.com@bastion.f945.example.opentlc.com</code>
2	Switch to root user	<code>sudo -i</code>
3	Clone the Git repository	<code>git clone https://github.com/thednd1992/ocp_advanced_deployment_homework.git</code>
4	Run the ansible playbook	<code>ansible-playbook ./ocp_advanced_deployment_homework/homework.yaml</code>
5	Uninstall the cluster	<code>sh ./ocp_advanced_deployment_homework/scripts/uninstall.sh</code>

The homework.yaml script automatically deploys the OpenShift cluster, creates PVs with different sizes (5G and 10G) and creates the different users requested in the assignment. The script also deploys the NodeJS-Mongo-Persistent app as a smoke test to see the ability to deploy a simple app. The CICD pipeline is created in the task-dev project and it is promoted to the task-prod project automatically through the pipeline. In the end the scripts provide two groups with the requested users and creates the limit ranges.

The following table represents the projects, their routes and login credentials.

Service name	Route	Login credentials
gogs	gogs-tasks-dev.apps.f945.example.opentlc.com	gogs/gogs
jenkins	jenkins-tasks-dev.apps.f945.example.opentlc.com	andrew/r3dh4t1!
nexus	nexus-tasks-dev.apps.f945.example.opentlc.com	admin/admin123
sonarqube	sonarqube-tasks-dev.apps.f945.example.opentlc.com	admin/admin
tasks	tasks-tasks-prod.apps.f945.example.opentlc.com	
node-js-app	nodejs-mongo-persistent-smoke-test.apps.f945.example.opentlc.com	

Release version: 3.11.16

Instructor: Jindrich Kana

Venue: Garni Hotel Centar, Novi Sad, Serbia

Participant: Djordje Gajisin (djordje.gajisin@devoteam.com)

Gogs

gogs-tasks-dev.apps.f945.example.opentlc.com/gogs



Dashboard

Issues

Pull Requests

Explore



gogs

✉ admin@gogs.com

🕒 Joined on Nov 27, 2018

👤 0 Followers - 0 Following

📁 **Repositories**

🔗 Public Activity

openshift-tasks


Updated 1 hour ago

★ 0 🍴 0


Jenkins


← → ↻


Not secure | https://jenkins-tasks-dev.apps.f945.example.opentlc.com


 Jenkins


Jenkins ▶


 New Item


 People


 Build History


 Manage Jenkins

 My Views

 Open Blue Ocean

 Lockable Resources

 Credentials

 New View

Build Queue

No builds in the queue.

Build Executor Status

1 Idle





2 Idle

3 Idle

4 Idle

5 Idle

All +

S	W	Name ↓	Last Success
		OpenShift Sample	N/A
		tasks-dev	N/A

Icon: [S](#) [M](#) [L](#)

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Nexus

The screenshot shows the Sonatype Nexus Repository Manager web interface. The browser address bar displays 'Not secure | nexus-tasks-dev.apps.f945.example.opentlc.com'. The page header includes the Sonatype logo, the text 'Sonatype Nexus Repository Manager OSS 3.12.1-01', a search bar labeled 'Search components', and a settings gear icon. A left sidebar titled 'Browse' contains links for 'Welcome', 'Search', 'Browse', and 'Upload'. The main content area features a 'Welcome' message with the subtext 'Learn about Sonatype Nexus Repository Manager'. Below this, a 'Get Started' section provides links for 'Upgrading' (Upgrade to the latest version), 'Configuration' (Set things up properly), 'Documentation' (Visit our help site), and 'Community' (Ask and answer questions). A 'Repository Formats' section lists various supported formats: APT*, Composer*, Conan*, CPAN*, Docker*, ELPA*, Git LFS*, Helm*, Maven*, npm*, NuGet*, P2*, PyPI*, R*, Raw*, RubyGems*, and Yum*. A footnote indicates '* Community supported'.

Not secure | nexus-tasks-dev.apps.f945.example.opentlc.com

Sonatype Nexus Repository Manager
OSS 3.12.1-01

Search components

Browse

- Welcome
- Search
- Browse
- Upload

Welcome Learn about Sonatype Nexus Repository Manager

Get Started

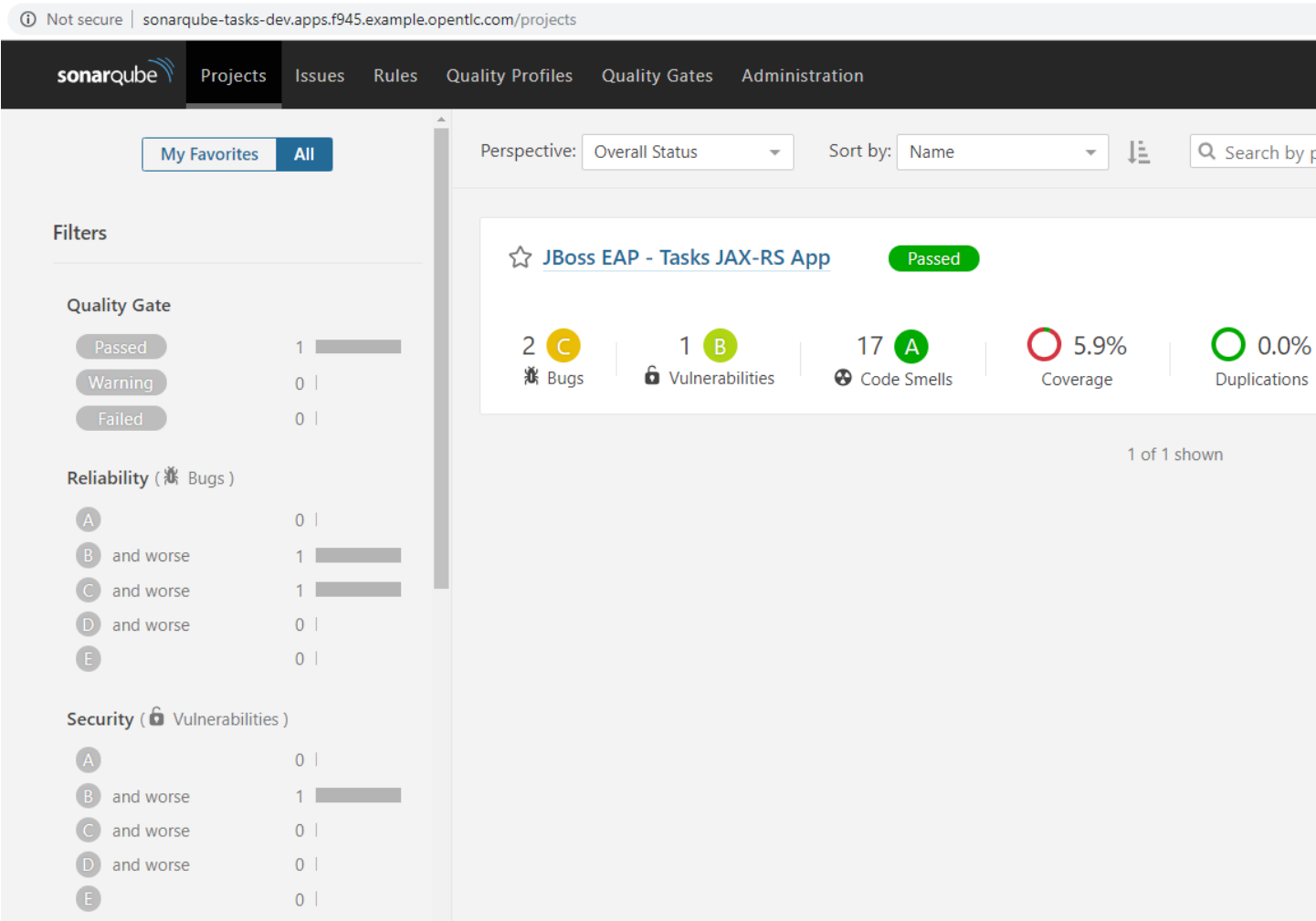
- Upgrading**
Upgrade to the latest version
- Configuration**
Set things up properly
- Documentation**
Visit our help site
- Community**
Ask and answer questions

Repository Formats

APT* Composer* Conan* CPAN* Docker* ELPA* Git LFS* Helm* Maven*
npm* NuGet* P2* PyPI* R* Raw* RubyGems* Yum*

* Community supported

SonarQube



Task-prod

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OpenShift Tasks Demo

Home

Logger

Log Info

Log Warning

Log Error

Load Generator

Seconds

Load!

Danger Zone

HEALTHY

Toggle Health

Kill Instance

Info

Pod Hostname	tasks-3-rxdn9
Pod IP	null
Used Memory	1286 MB
Session ID	uODW9rDBNB7V0ZILdR4y2KXebD0-dj9GrZEIn_dd

Messages

Nothing to report.

Nodejs-mongo-persistent

nodejs-mongo-persistent-smoke-test.apps.f945.example.opentlc.com

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.

Managing your application

Documentation on how to manage your application is available at the [Developer Guide](#).

Web Console

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

Command Line

With the [OpenShift command line interface \(CLI\)](#), you can 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

Page view count: 1285

Git Bash

```
PLAY RECAP *****
infranode1.f945.internal : ok=176 changed=81 unreachable=0 failed=0
infranode2.f945.internal : ok=176 changed=81 unreachable=0 failed=0
loadbalancer1.f945.internal : ok=59 changed=18 unreachable=0 failed=0
localhost : ok=66 changed=24 unreachable=0 failed=0
master1.f945.internal : ok=1267 changed=487 unreachable=0 failed=0
master2.f945.internal : ok=362 changed=166 unreachable=0 failed=0
master3.f945.internal : ok=362 changed=166 unreachable=0 failed=0
node1.f945.internal : ok=175 changed=80 unreachable=0 failed=0
node2.f945.internal : ok=175 changed=80 unreachable=0 failed=0
node3.f945.internal : ok=175 changed=80 unreachable=0 failed=0
support1.f945.internal : ok=60 changed=17 unreachable=0 failed=0

INSTALLER STATUS *****
Initialization : Complete (0:00:58)
Health Check : Complete (0:00:18)
Node Bootstrap Preparation : Complete (0:06:15)
etcd Install : Complete (0:01:14)
NFS Install : Complete (0:00:13)
Load Balancer Install : Complete (0:00:21)
Master Install : Complete (0:05:57)
Master Additional Install : Complete (0:00:59)
Node Join : Complete (0:00:47)
Hosted Install : Complete (0:01:05)

The use of NFS for the core OpenShift Container Platform components i
OpenShift Container Platform infrastructure.
Cluster Monitoring Operator : Complete (0:01:17)
Web Console Install : Complete (0:00:24)
Console Install : Complete (0:00:36)
Metrics Install : Complete (0:02:31)
metrics-server Install : Complete (0:00:53)
Logging Install : Complete (0:03:27)
Prometheus Install : Complete (0:00:46)
Service Catalog Install : Complete (0:01:48)
[root@bastion ~]# exit
logout
[djordje.gajisin-devoteam.com@bastion ~]$ |
```