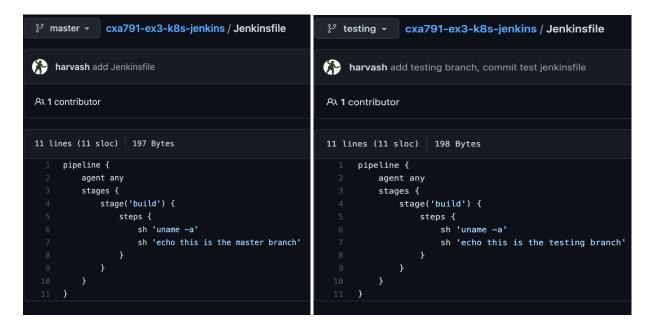C.Anderson   Exercise 3 Fall 2021

ITEM #1

For each pipeline, submit your Jenkinsfile and screenshots showing the output from the Console logs when the builds are complete. Discuss any problems you ran into and how you solved them.

Master & Testing Jenkinsfiles

master ▾ cxa791-ex3-k8s-jenkins / Jenkinsfile	testing ▾ cxa791-ex3-k8s-jenkins / Jenkinsfile
harvash add Jenkinsfile	harvash add testing branch, commit test jenkinsfile
1 contributor	1 contributor
11 lines (11 sloc) | 197 Bytes	11 lines (11 sloc) | 198 Bytes

```
 1   pipeline {
 2       agent any
 3       stages {
 4           stage('build') {
 5               steps {
 6                   sh 'uname -a'
 7                   sh 'echo this is the master branch'
 8               }
 9           }
10       }
11   }
```

```
 1   pipeline {
 2       agent any
 3       stages {
 4           stage('build') {
 5               steps {
 6                   sh 'uname -a'
 7                   sh 'echo this is the testing branch'
 8               }
 9           }
10       }
11   }
```

Dash View of Created Jobs

All	+				
S	**W**	**Name ↓**	**Last Success**	**Last Failure**	**Last Duration**
✓	☀	**ex3-master**	4 min 22 sec - **#1**	N/A	2.3 sec
✓	☀	**ex3-testing**	12 sec - **#1**	N/A	1.9 sec
✓	☀	**lecture-pipeline**	37 min - **#2**	N/A	5.3 sec

Icon: **S M** L

Build Master Job

✅Console Output

```
Started by user Chris
Obtained Jenkinsfile from git https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/
Running in Durability level: MAX_SURVIVABILITY
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/ex3-master
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/
 > git init /var/jenkins_home/workspace/ex3-master # timeout=10
Fetching upstream changes from https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/
 > git --version # timeout=10
 > git --version # 'git version 2.30.2'
 > git fetch --tags --force --progress -- https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/
+refs/heads/*:refs/remotes/origin/* # timeout=10
 > git config remote.origin.url https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/ # timeout=10
 > git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > git rev-parse refs/remotes/origin/master^{commit} # timeout=10
Checking out Revision 72bdd2b72abfc17bf2502d8026fcd32e0b8fa9dc (refs/remotes/origin/master)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 72bdd2b72abfc17bf2502d8026fcd32e0b8fa9dc # timeout=10
Commit message: "add Jenkinsfile"
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (build)
[Pipeline] sh
+ uname -a
Linux jenkins-d87888d4b-knv52 5.10.47-linuxkit #1 SMP Sat Jul 3 21:51:47 UTC 2021 x86_64 GNU/Linux
[Pipeline] sh
+ echo this is the master branch
this is the master branch
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

Build Test Job

✅Console Output

```
Started by user Chris
Obtained Jenkinsfile from git https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/
Running in Durability level: MAX_SURVIVABILITY
[Pipeline] Start of Pipeline
[Pipeline] node
Running on Jenkins in /var/jenkins_home/workspace/ex3-testing
[Pipeline] {
[Pipeline] stage
[Pipeline] { (Declarative: Checkout SCM)
[Pipeline] checkout
The recommended git tool is: NONE
No credentials specified
Cloning the remote Git repository
Cloning repository https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/
 > git init /var/jenkins_home/workspace/ex3-testing # timeout=10
Fetching upstream changes from https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/
 > git --version # timeout=10
 > git --version # 'git version 2.30.2'
 > git fetch --tags --force --progress -- https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/
+refs/heads/*:refs/remotes/origin/* # timeout=10
 > git config remote.origin.url https://github.com/harvash/cxa791-ex3-k8s-jenkins.git/ # timeout=10
 > git config --add remote.origin.fetch +refs/heads/*:refs/remotes/origin/* # timeout=10
Avoid second fetch
 > git rev-parse refs/remotes/origin/testing^{commit} # timeout=10
Checking out Revision 25b5233d76bdc619920ce0030dab95efd663598b (refs/remotes/origin/testing)
 > git config core.sparsecheckout # timeout=10
 > git checkout -f 25b5233d76bdc619920ce0030dab95efd663598b # timeout=10
Commit message: "add testing branch, commit test jenkinsfile"
First time build. Skipping changelog.
[Pipeline] }
[Pipeline] // stage
[Pipeline] withEnv
[Pipeline] {
[Pipeline] stage
[Pipeline] { (build)
[Pipeline] sh
+ uname -a
Linux jenkins-d87888d4b-knv52 5.10.47-linuxkit #1 SMP Sat Jul 3 21:51:47 UTC 2021 x86_64 GNU/Linux
[Pipeline] sh
+ echo this is the testing branch
this is the testing branch
[Pipeline] }
[Pipeline] // stage
[Pipeline] }
[Pipeline] // withEnv
[Pipeline] }
[Pipeline] // node
[Pipeline] End of Pipeline
Finished: SUCCESS
```

ITEM #2

Delete your Kubernetes pod:
kubectl delete pod <your pod name> -n jenkins

Then observe what happens:
kubectl get pods -n jenkins

a) Is the pod restarted? Why?

Without deleting the actual deployment, k8s merely sees this as a missing pod, so it recreates it automatically

b) What happens to the pipelines you created earlier in Jenkins?

Because the pod was deleted, and not using a PV, the pod is a "new" Jenkins instance. Ergo, the previously configured jobs are not in the new pod.

c) In the service yaml file, there is a section on "volumes". What is /var/jenkins_home mapped to? How is this related to question b above?

The service uses an ephemeral volume, one that is not persistent across restarts. EmptyDir creates the volume as a file inside the Docker-Desktop (in my case, for Mac). The volume file is deleted when the pod is deleted.