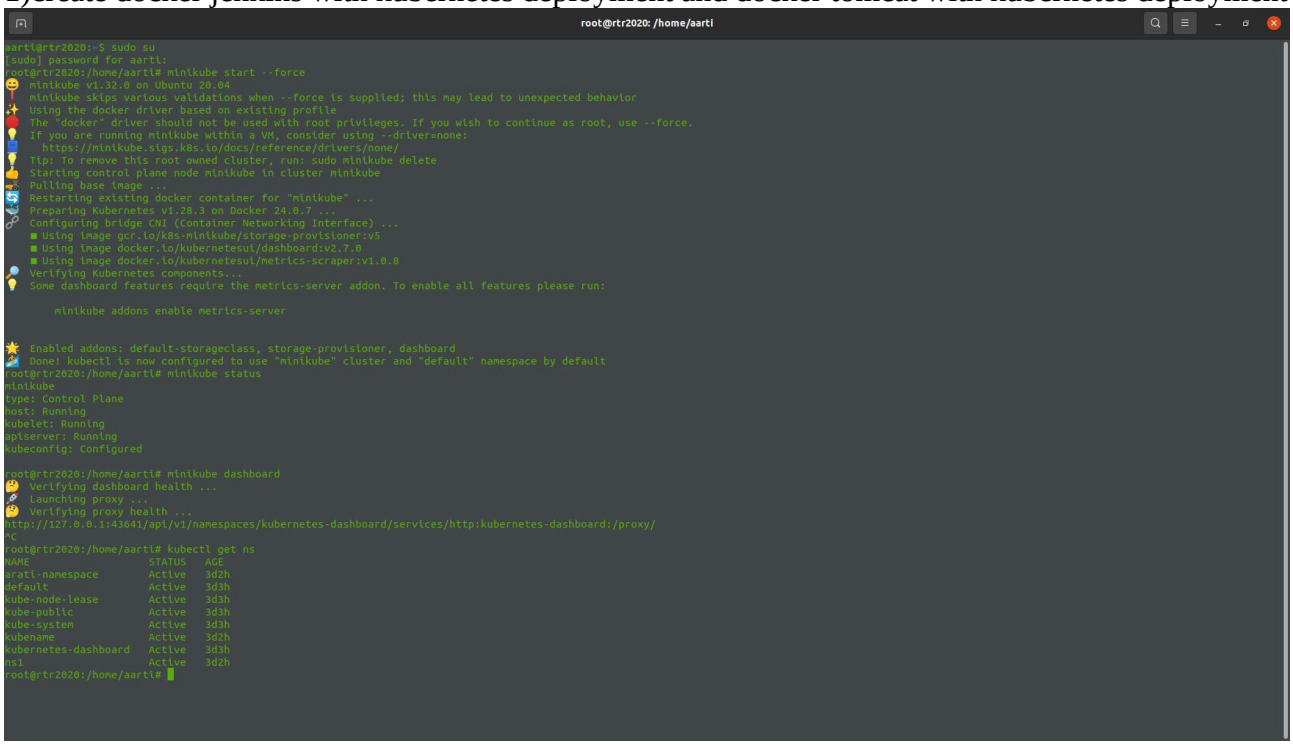
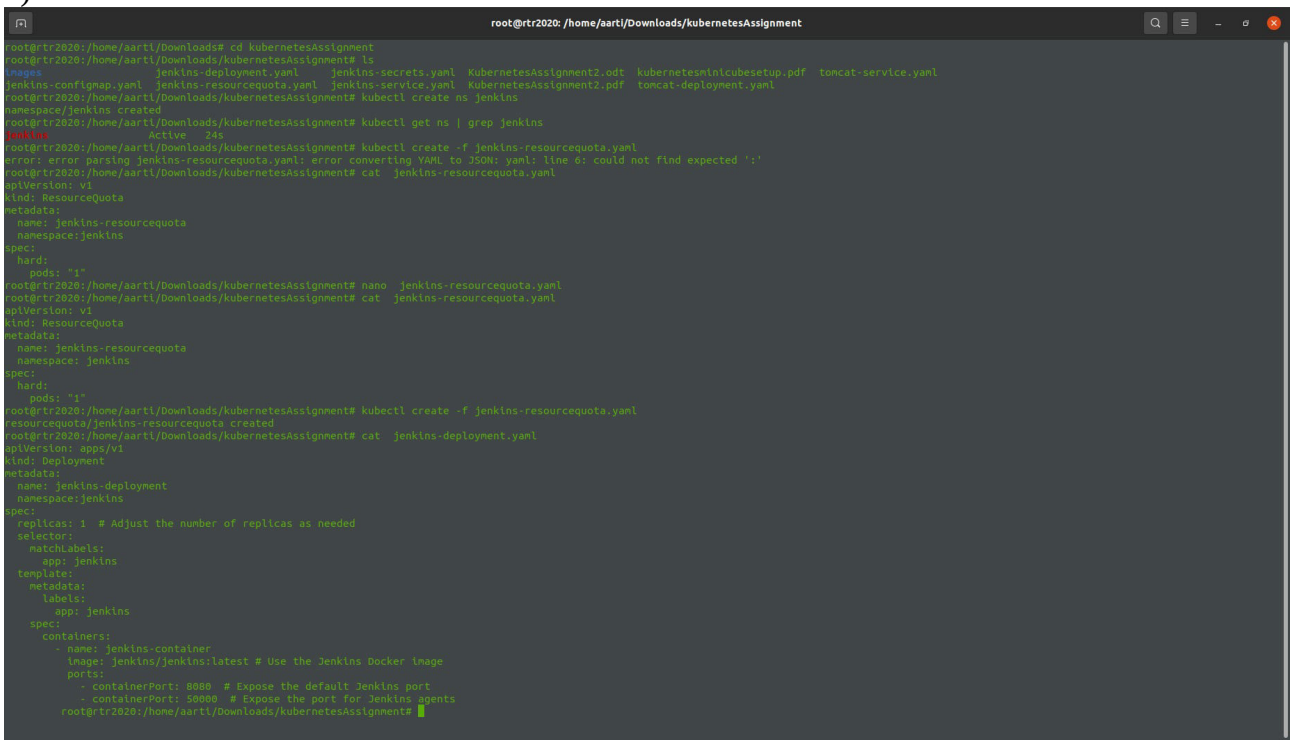
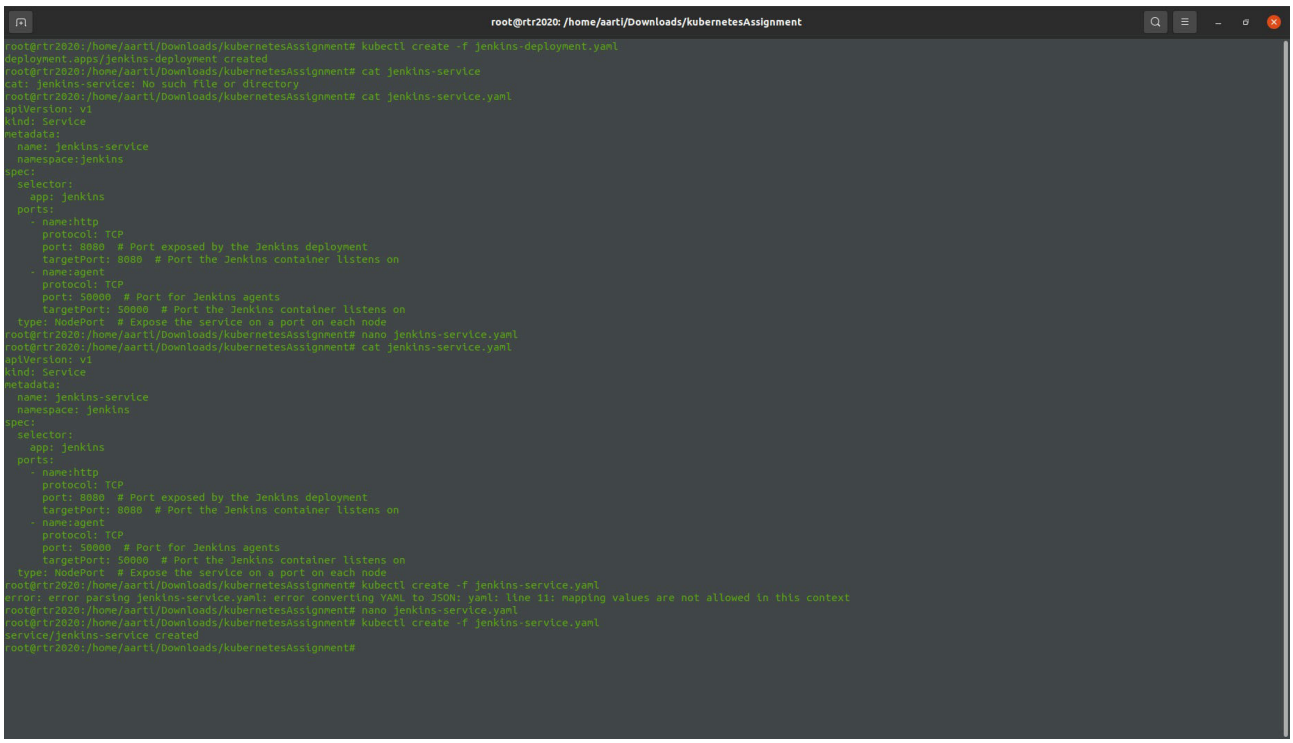
1)create docker jenkins with kubernetes deployment and docker tomcat with kubernetes deployment



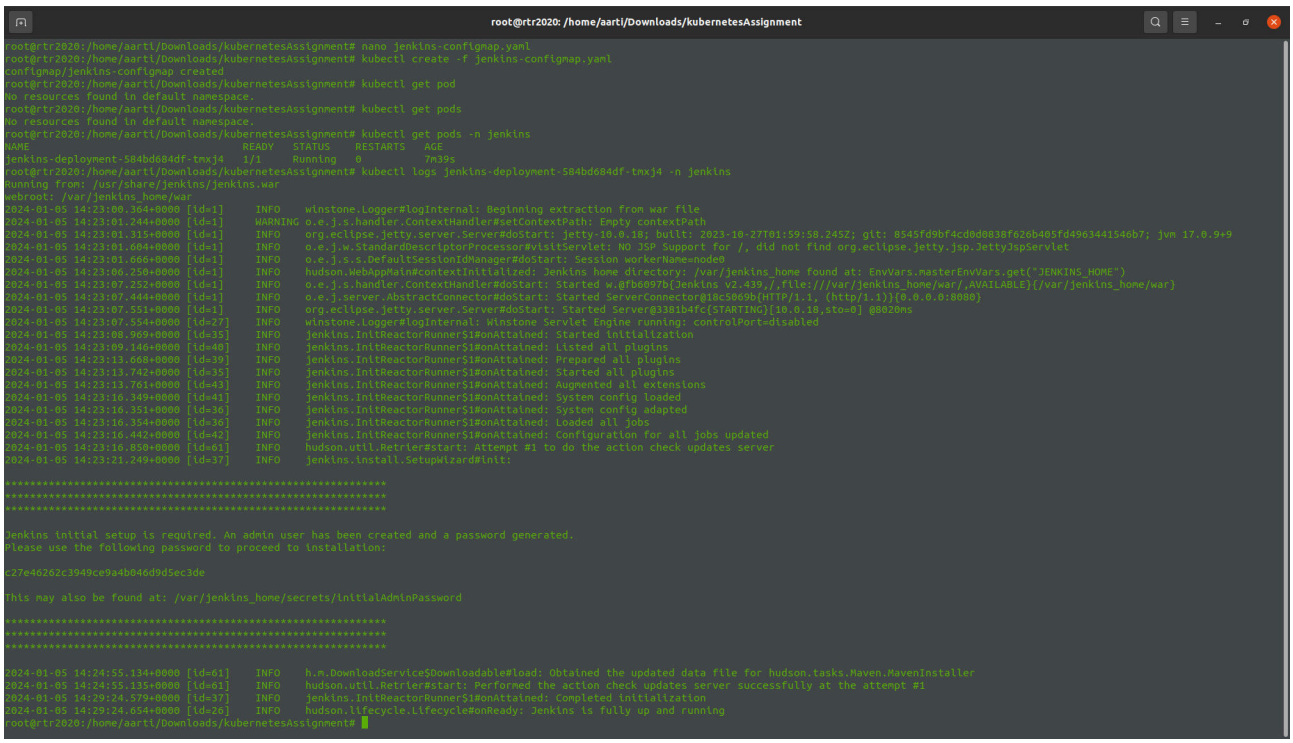

2)



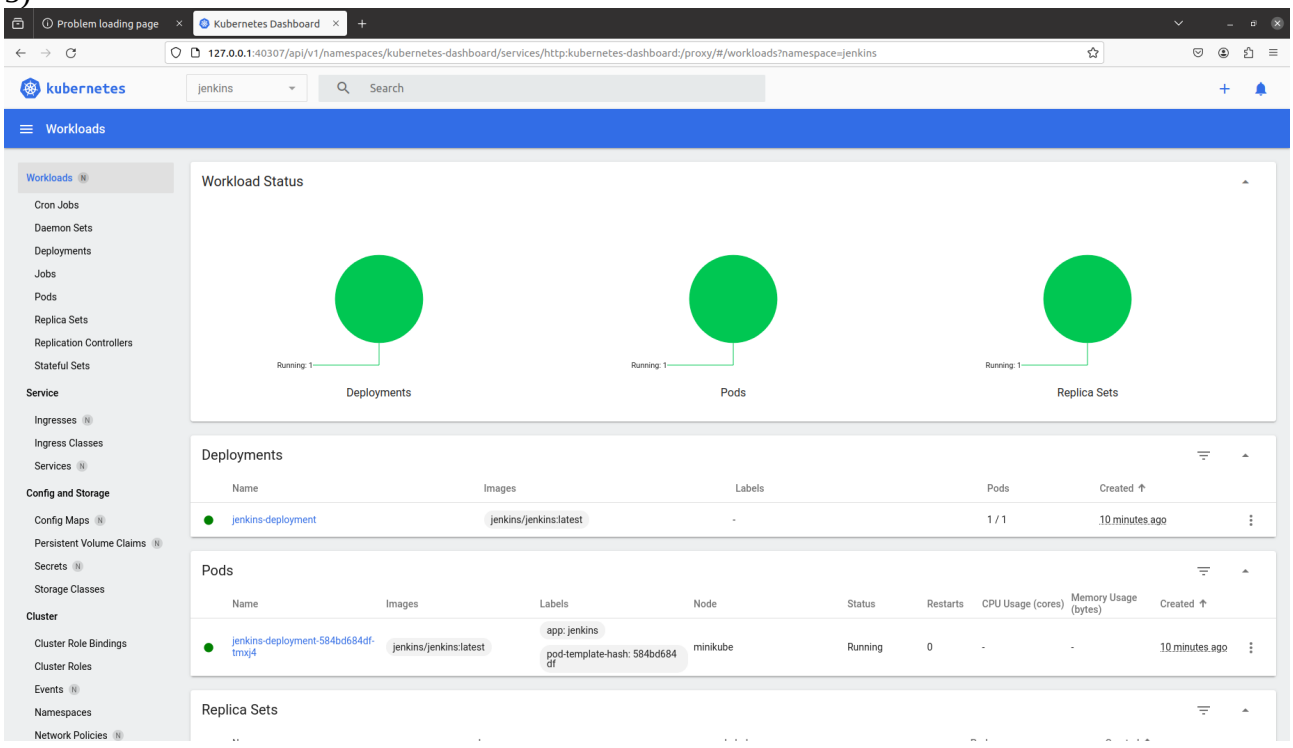

3)


root@rtr2020: /home/aarti/Downloads/kubernetesAssignment
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f jenkins-deployment.yaml
deployment.apps/jenkins-deployment created
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# cat jenkins-service
cat: jenkins-service: No such file or directory
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# cat jenkins-service.yaml
aplVersion: v1
kind: Service
metadata:
name: jenkins-service
namespace:jenkins
spec:
selector:
app: jenkins
ports:
- name:http
protocol: TCP
port: 8080 # Port exposed by the Jenkins deployment
targetPort: 8080 # Port the Jenkins container listens on
- name:agent
protocol: TCP
port: 50000 # Port for Jenkins agents
targetPort: 50000 # Port the Jenkins container listens on
type: NodePort # Expose the service on a port on each node
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano jenkins-service.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# cat jenkins-service.yaml
aplVersion: v1
kind: Service
metadata:
name: jenkins-service
namespace: jenkins
spec:
selector:
app: jenkins
ports:
- name:http
protocol: TCP
port: 8080 # Port exposed by the Jenkins deployment
targetPort: 8080 # Port the Jenkins container listens on
- name:agent
protocol: TCP
port: 50000 # Port for Jenkins agents
targetPort: 50000 # Port the Jenkins container listens on
type: NodePort # Expose the service on a port on each node
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f jenkins-service.yaml
error: error parsing jenkins-service.yaml: error converting YAML to JSON: yaml: line 11: mapping values are not allowed in this context
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano jenkins-service.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f jenkins-service.yaml
service/jenkins-service created
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment#

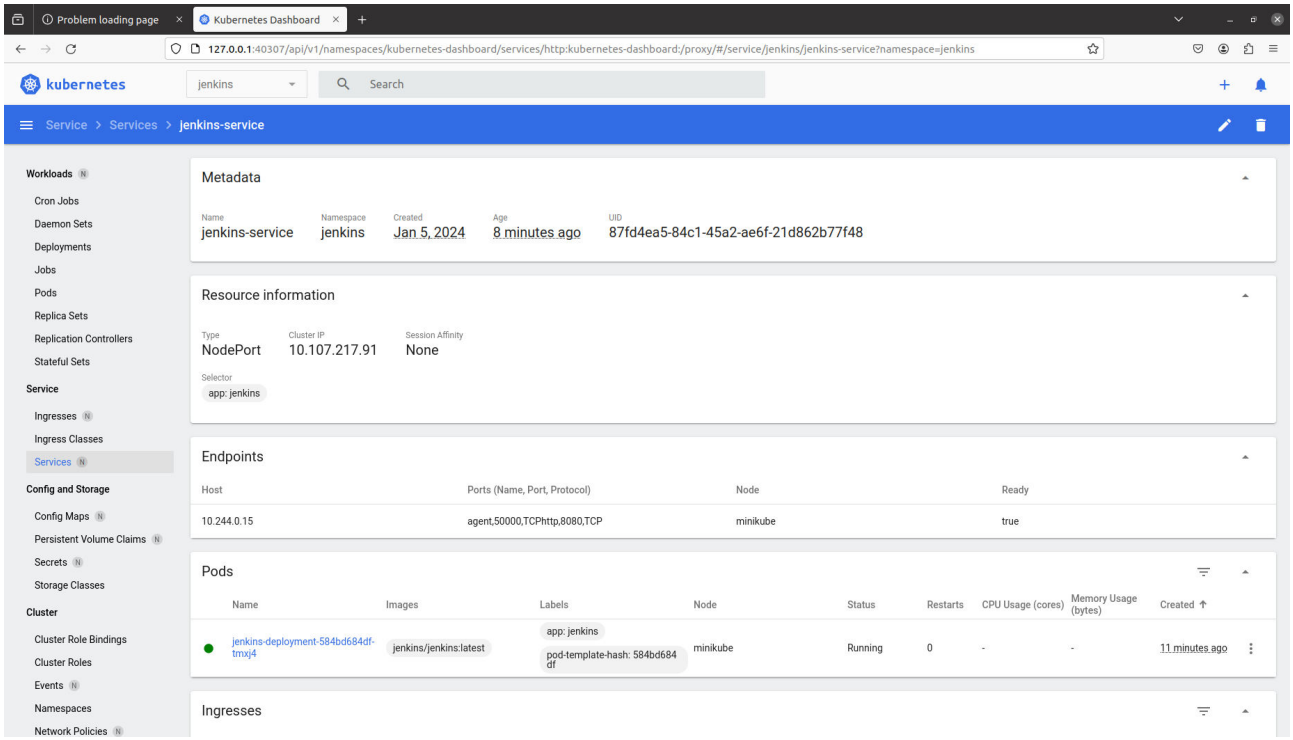
4)


root@rtr2020: /home/aarti/Downloads/kubernetesAssignment
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano jenkins-configmap.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f jenkins-configmap.yaml
configmap/jenkins-configmap created
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl get pod
No resources found in default namespace.
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl get pods
No resources found in default namespace.
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl get pods -n jenkins
NAME READY STATUS RESTARTS AGE
jenkins-deployment-584bd684df-tmxj4 1/1 Running 0 7m39s
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl logs jenkins-deployment-584bd684df-tmxj4 -n jenkins
Running from: /usr/share/jenkins/jenkins.war
webroot: /var/jenkins_home/war
2024-01-05 14:23:00.364+0000 [id=1] INFO winstone.Logger#logInternal: Beginning extraction from war file
2024-01-05 14:23:01.244+0000 [id=1] WARNING o.e.j.s.handler.ContextHandler#setContextPath: Empty contextPath
2024-01-05 14:23:01.315+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: jetty-10.0.18; built: 2023-10-27T01:59:58.245Z; git: 8545fd9bf4cd0d0838f626b405fd4963441546b7; jvm 17.0.9+9
2024-01-05 14:23:01.604+0000 [id=1] INFO o.e.j.w.StandardDescriptorProcessor#visitServlet: NO JSP Support for /, did not find org.eclipse.jetty.jsp.JettyJspServlet
2024-01-05 14:23:01.666+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager#doStart: Session workerName=node0
2024-01-05 14:23:06.250+0000 [id=1] INFO hudson.WebAppMain#contextInitialized: Jenkins home directory: /var/jenkins_home found at: EnvVars.masterEnvVars.get("JENKINS_HOME")
2024-01-05 14:23:07.252+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#doStart: Started w.@fb6097b{Jenkins v2.439,/,file:///var/jenkins_home/war/,AVAILABLE}{/var/jenkins_home/war}
2024-01-05 14:23:07.444+0000 [id=1] INFO o.e.j.server.AbstractConnector#doStart: Started ServerConnector@18c5069b{HTTP/1.1, (http/1.1)}{0.0.0.0:8080}
2024-01-05 14:23:07.551+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: Started Server@3381b4fc{STARTING}[10.0.18,sto=0] @8020ms
2024-01-05 14:23:07.554+0000 [id=27] INFO winstone.Logger#logInternal: Winstone Servlet Engine running: controlPort=disabled
2024-01-05 14:23:08.969+0000 [id=35] INFO jenkins.InitReactorRunner$1#onAttained: Started initialization
2024-01-05 14:23:09.146+0000 [id=40] INFO jenkins.InitReactorRunner$1#onAttained: Listed all plugins
2024-01-05 14:23:13.668+0000 [id=39] INFO jenkins.InitReactorRunner$1#onAttained: Prepared all plugins
2024-01-05 14:23:13.742+0000 [id=35] INFO jenkins.InitReactorRunner$1#onAttained: Started all plugins
2024-01-05 14:23:13.761+0000 [id=41] INFO jenkins.InitReactorRunner$1#onAttained: Augmented all extensions
2024-01-05 14:23:16.349+0000 [id=41] INFO jenkins.InitReactorRunner$1#onAttained: System config loaded
2024-01-05 14:23:16.351+0000 [id=36] INFO jenkins.InitReactorRunner$1#onAttained: System config adapted
2024-01-05 14:23:16.354+0000 [id=36] INFO jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2024-01-05 14:23:16.442+0000 [id=42] INFO jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updated
2024-01-05 14:23:16.850+0000 [id=61] INFO hudson.util.Retrier#start: Attempt #1 to do the action check updates server
2024-01-05 14:23:21.249+0000 [id=37] INFO jenkins.install.SetupWizard#init:
Jenkins initial setup is required. An admin user has been created and a password generated.
Please use the following password to proceed to installation:
c27e46262c3949ce9a4b046d9d5ec3de
This may also be found at: /var/jenkins_home/secrets/initialAdminPassword
2024-01-05 14:24:55.134+0000 [id=61] INFO h.m.DownloadService$Downloadable#load: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
2024-01-05 14:24:55.135+0000 [id=61] INFO hudson.util.Retrier#start: Performed the action check updates server successfully at the attempt #1
2024-01-05 14:29:24.579+0000 [id=37] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
2024-01-05 14:29:24.654+0000 [id=26] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment#

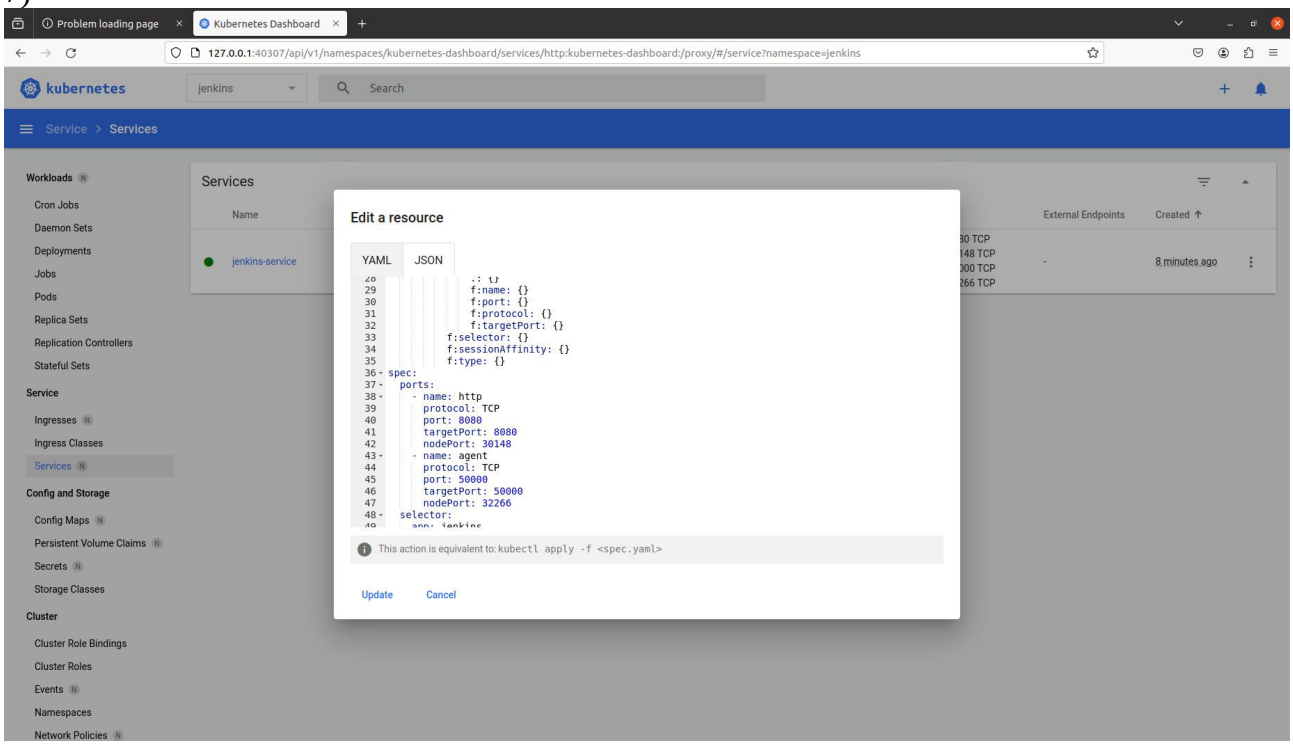
5)


Problem loading page
Kubernetes Dashboard
127.0.0.1:40307/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/workloads?namespace=jenkins
kubernetes
jenkins
Search
Workloads
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Workload Status
Running: 1
Deployments
Running: 1
Pods
Running: 1
Replica Sets
Deployments
Name
Images
Labels
Pods
Created
jenkins-deployment
jenkins/jenkins:latest
-
1 / 1
10 minutes ago
Pods
Name
Images
Labels
Node
Status
Restarts
CPU Usage (cores)
Memory Usage (bytes)
Created
jenkins-deployment-584bd684df-tmxj4
jenkins/jenkins:latest
app: jenkins
pod-template-hash: 584bd684df
minikube
Running
0
-
-
10 minutes ago
Replica Sets

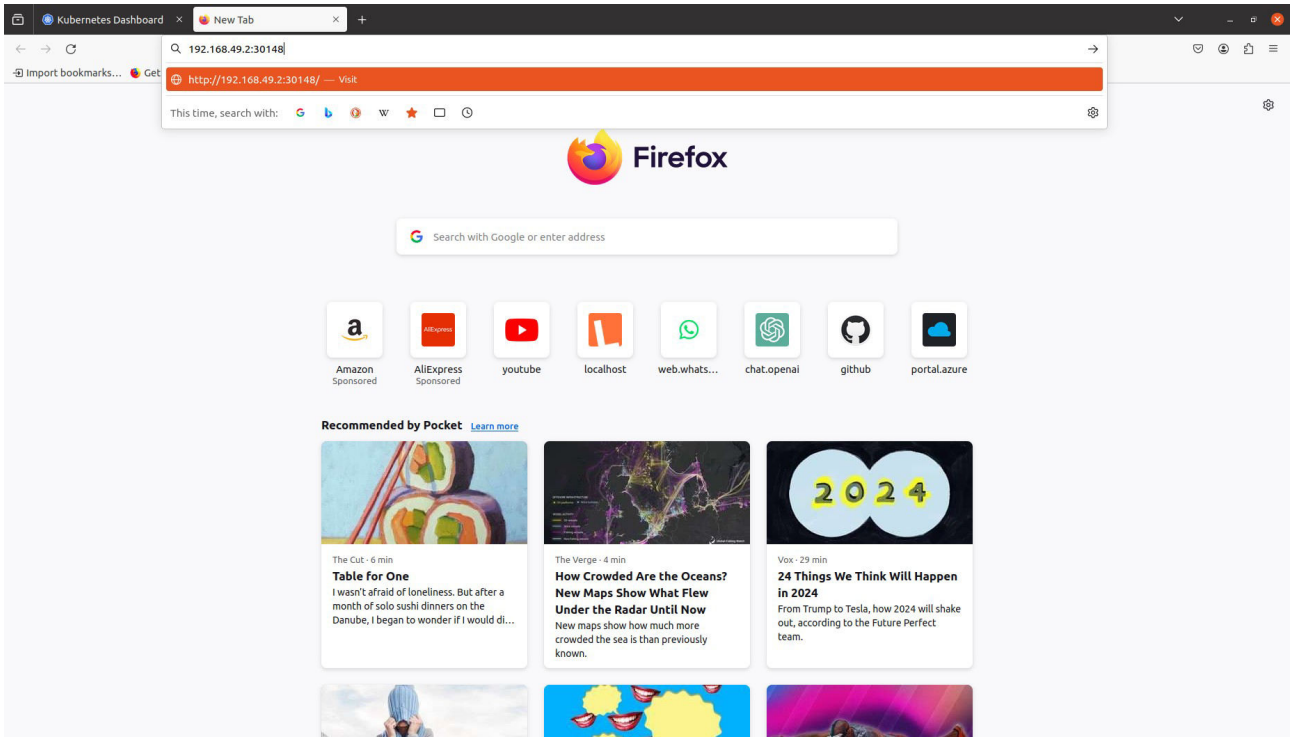
6)


Problem loading page
Kubernetes Dashboard
127.0.0.1:40307/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/service/jenkins/jenkins-service?namespace=jenkins
kubernetes
jenkins
Search
Service > Services > jenkins-service
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Metadata
Name
jenkins-service
Namespace
jenkins
Created
Jan 5, 2024
Age
8 minutes ago
UID
87fd4ea5-84c1-45a2-ae6f-21d862b77f48
Resource information
Type
NodePort
Cluster IP
10.107.217.91
Session Affinity
None
Selector
app: jenkins
Endpoints
Host
Ports (Name, Port, Protocol)
Node
Ready
10.244.0.15
agent,50000,TCPhttp,8080,TCP
minikube
true
Pods
Name
Images
Labels
Node
Status
Restarts
CPU Usage (cores)
Memory Usage (bytes)
Created
jenkins-deployment-584bd684df-tmxj4
jenkins/jenkins:latest
app: jenkins
pod-template-hash: 584bd684df
minikube
Running
0
11 minutes ago
Ingresses

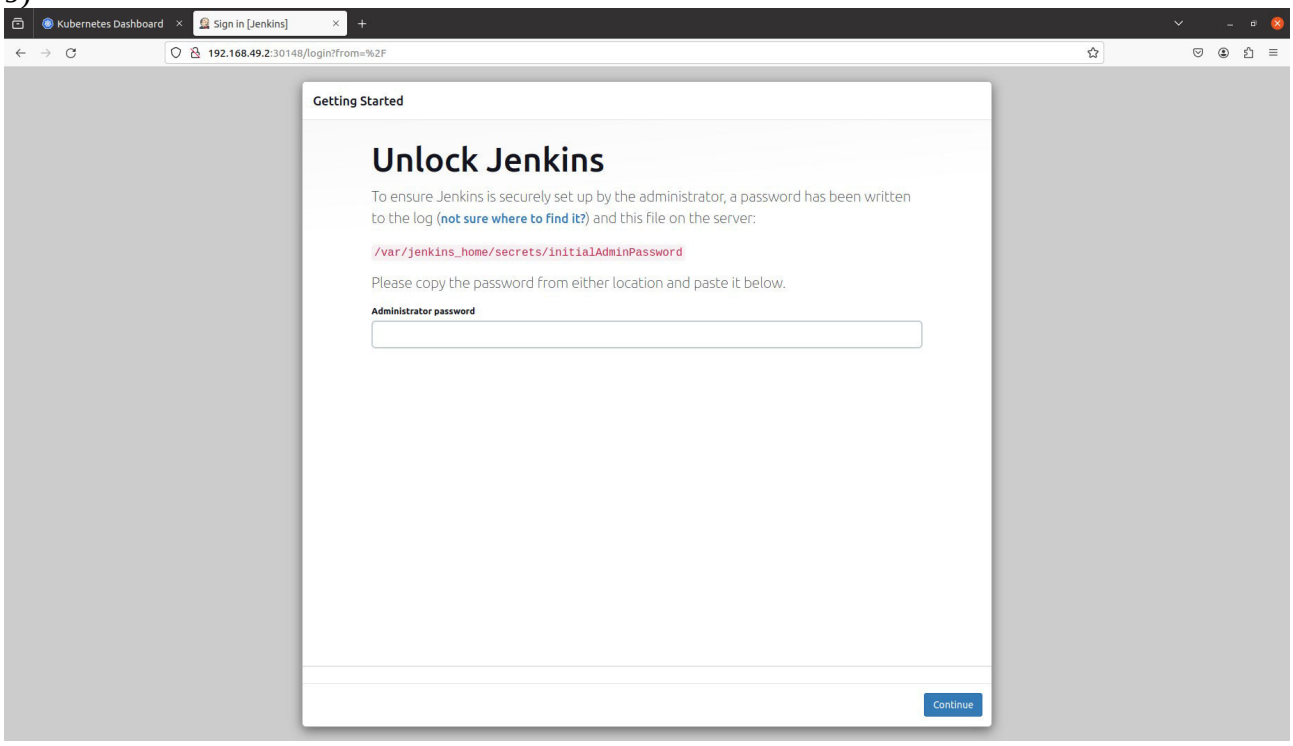
7)


Problem loading page
Kubernetes Dashboard
127.0.0.1:40307/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/service?namespace=jenkins
kubernetes
jenkins
Search
Service > Services
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Services
Name
External Endpoints
Created
jenkins-service
8 minutes ago
Edit a resource
YAML
JSON
f:name: {}
f:port: {}
f:protocol: {}
f:targetPort: {}
f:selector: {}
f:sessionAffinity: {}
f:type: {}
spec:
ports:
- name: http
protocol: TCP
port: 8080
targetPort: 8080
nodePort: 30148
- name: agent
protocol: TCP
port: 50000
targetPort: 50000
nodePort: 32266
selector:
This action is equivalent to: kubectl apply -f <spec.yaml>
Update
Cancel

8)


Kubernetes Dashboard
New Tab
192.168.49.2:30148
http://192.168.49.2:30148/ — Visit
This time, search with:
Firefox
Search with Google or enter address
Amazon
Sponsored
AliExpress
Sponsored
youtube
localhost
web.whats...
chat.openai
github
portal.azure
Recommended by Pocket
Learn more
The Cut · 6 min
Table for One
I wasn't afraid of loneliness. But after a month of solo sushi dinners on the Danube, I began to wonder if I would di...
The Verge · 4 min
How Crowded Are the Oceans? New Maps Show What Flew Under the Radar Until Now
New maps show how much more crowded the sea is than previously known.
Vox · 29 min
24 Things We Think Will Happen in 2024
From Trump to Tesla, how 2024 will shake out, according to the Future Perfect team.

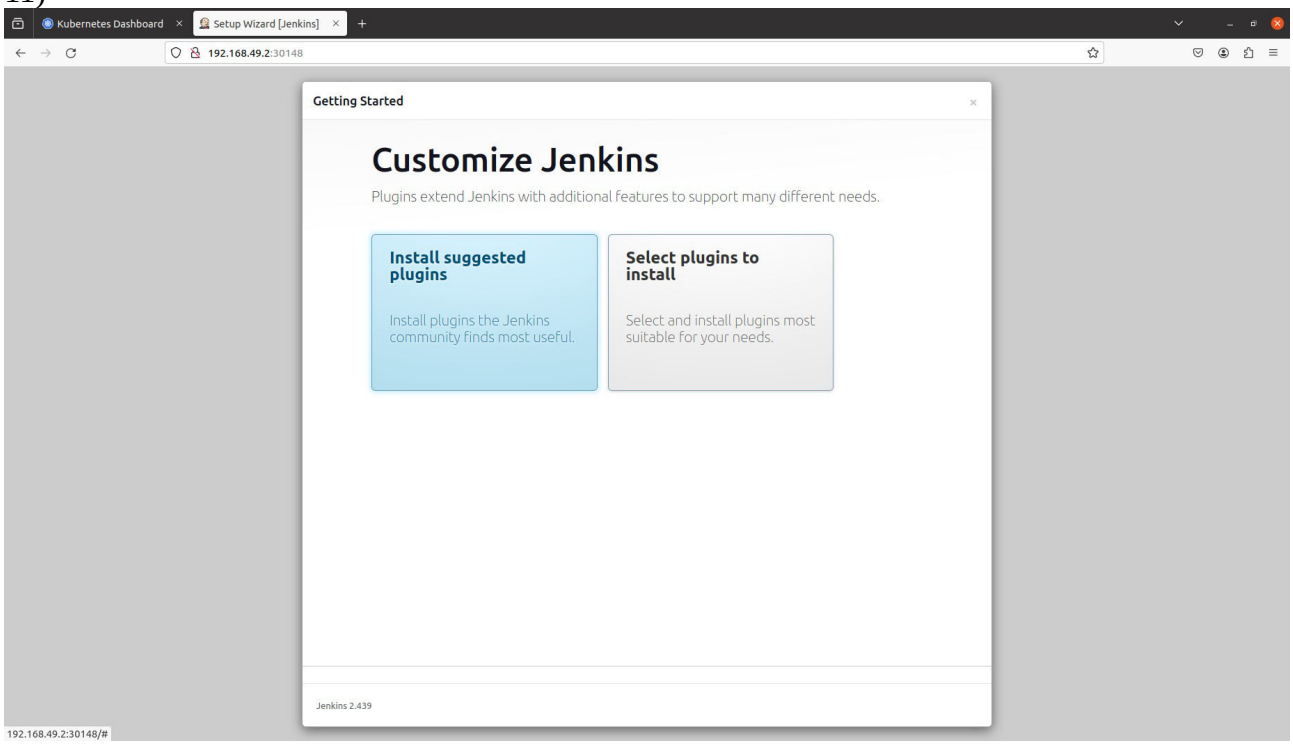
9)


Kubernetes Dashboard
Sign in [Jenkins]
192.168.49.2:30148/login?from=%2F
Getting Started
Unlock Jenkins
To ensure Jenkins is securely set up by the administrator, a password has been written to the log (not sure where to find it?) and this file on the server:
/var/jenkins_home/secrets/initialAdminPassword
Please copy the password from either location and paste it below.
Administrator password
Continue

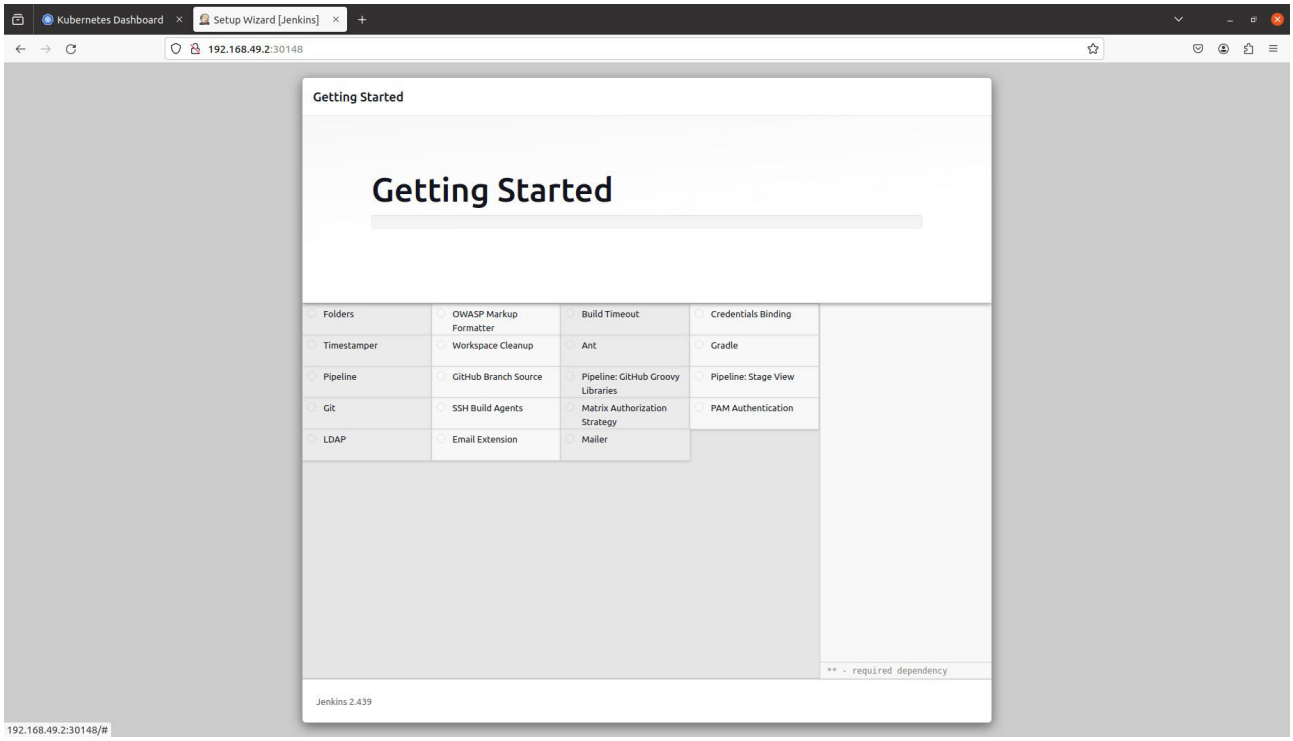
10)


root@rtr2020: /home/aarti/Downloads/kubernetesAssignment
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# minikube dashboard
Verifying dashboard health ...
Launching proxy ...
Verifying proxy health ...
http://127.0.0.1:40307/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/
^C
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# minikube ip
192.168.49.2
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# ^C
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl logs jenkins-deployment-584bd684df-tmxj4 -n jenkins
Running from: /usr/share/jenkins/jenkins.war
webroot: /var/jenkins_home/war
2024-01-05 14:23:00.364+0000 [id=1] INFO winstone.Logger#logInternal: Beginning extraction from war file
2024-01-05 14:23:01.244+0000 [id=1] WARNING o.e.j.s.handler.ContextHandler#setContextPath: Empty contextPath
2024-01-05 14:23:01.315+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: jetty-10.0.18; built: 2023-10-27T01:59:58.245Z; git: 8545fd9bf4cd0d0838f626b405fd4963441546b7; jvm 17.0.9+9
2024-01-05 14:23:01.604+0000 [id=1] INFO o.e.j.w.StandardDescriptorProcessor#visitServlet: NO JSP Support for /, did not find org.eclipse.jetty.jsp.JettyJspServlet
2024-01-05 14:23:01.666+0000 [id=1] INFO o.e.j.s.s.DefaultSessionIdManager#doStart: Session workerName=node0
2024-01-05 14:23:06.250+0000 [id=1] INFO hudson.WebAppMain#contextInitialized: Jenkins home directory: /var/jenkins_home found at: EnvVars.masterEnvVars.get("JENKINS_HOME")
2024-01-05 14:23:07.252+0000 [id=1] INFO o.e.j.s.handler.ContextHandler#doStart: Started w.@fb6097b{Jenkins v2.439,/,file:///var/jenkins_home/war/,AVAILABLE}{/var/jenkins_home/war}
2024-01-05 14:23:07.444+0000 [id=1] INFO o.e.j.server.AbstractConnector#doStart: Started ServerConnector@18c5069b{HTTP/1.1, (http/1.1)}{0.0.0.0:8080}
2024-01-05 14:23:07.551+0000 [id=1] INFO org.eclipse.jetty.server.Server#doStart: Started Server@3381b4fc{STARTING}[10.0.18,sto=0] @8020ms
2024-01-05 14:23:07.554+0000 [id=27] INFO winstone.Logger#logInternal: Winstone Servlet Engine running: controlPort=disabled
2024-01-05 14:23:08.969+0000 [id=35] INFO jenkins.InitReactorRunner$1#onAttained: Started initialization
2024-01-05 14:23:09.146+0000 [id=40] INFO jenkins.InitReactorRunner$1#onAttained: Listed all plugins
2024-01-05 14:23:13.668+0000 [id=39] INFO jenkins.InitReactorRunner$1#onAttained: Prepared all plugins
2024-01-05 14:23:13.742+0000 [id=35] INFO jenkins.InitReactorRunner$1#onAttained: Started all plugins
2024-01-05 14:23:13.761+0000 [id=43] INFO jenkins.InitReactorRunner$1#onAttained: Augmented all extensions
2024-01-05 14:23:16.349+0000 [id=41] INFO jenkins.InitReactorRunner$1#onAttained: System config loaded
2024-01-05 14:23:16.351+0000 [id=36] INFO jenkins.InitReactorRunner$1#onAttained: System config adapted
2024-01-05 14:23:16.354+0000 [id=36] INFO jenkins.InitReactorRunner$1#onAttained: Loaded all jobs
2024-01-05 14:23:16.442+0000 [id=42] INFO jenkins.InitReactorRunner$1#onAttained: Configuration for all jobs updated
2024-01-05 14:23:16.850+0000 [id=61] INFO hudson.util.Retrier#start: Attempt #1 to do the action check updates server
2024-01-05 14:23:21.249+0000 [id=37] INFO jenkins.install.SetupWizard#init:
Jenkins initial setup is required. An admin user has been created and a password generated.
Please use the following password to proceed to installation:
c27e46262c3949ce9a4b046d9d5ec3de
This may also be found at: /var/jenkins_home/secrets/initialAdminPassword
2024-01-05 14:24:55.134+0000 [id=61] INFO h.m.DownloadService$Downloadable#load: Obtained the updated data file for hudson.tasks.Maven.MavenInstaller
2024-01-05 14:24:55.135+0000 [id=61] INFO hudson.util.Retrier#start: Performed the action check updates server successfully at the attempt #1
2024-01-05 14:29:24.579+0000 [id=37] INFO jenkins.InitReactorRunner$1#onAttained: Completed initialization
2024-01-05 14:29:24.654+0000 [id=26] INFO hudson.lifecycle.Lifecycle#onReady: Jenkins is fully up and running
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment#

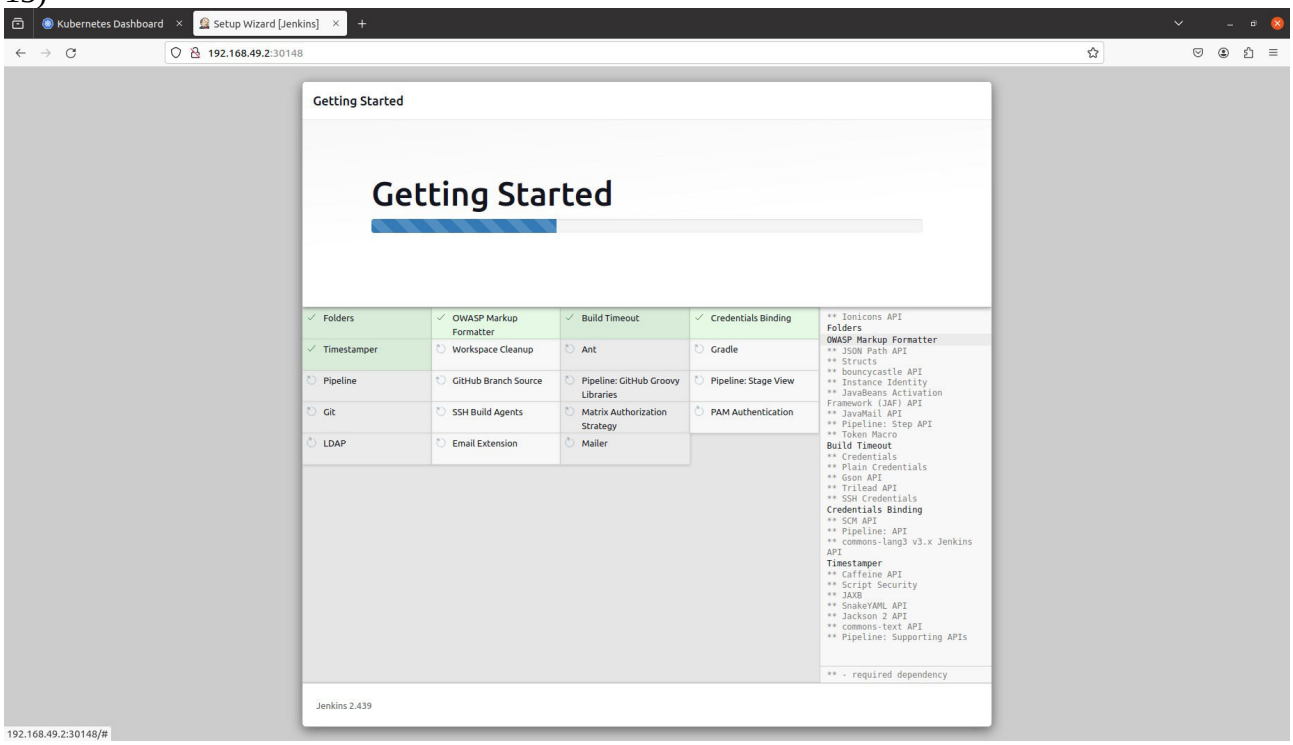
11)


Kubernetes Dashboard
Setup Wizard [Jenkins]
192.168.49.2:30148
Getting Started
Customize Jenkins
Plugins extend Jenkins with additional features to support many different needs.
Install suggested plugins
Install plugins the Jenkins community finds most useful.
Select plugins to install
Select and install plugins most suitable for your needs.
Jenkins 2.439
192.168.49.2:30148/#

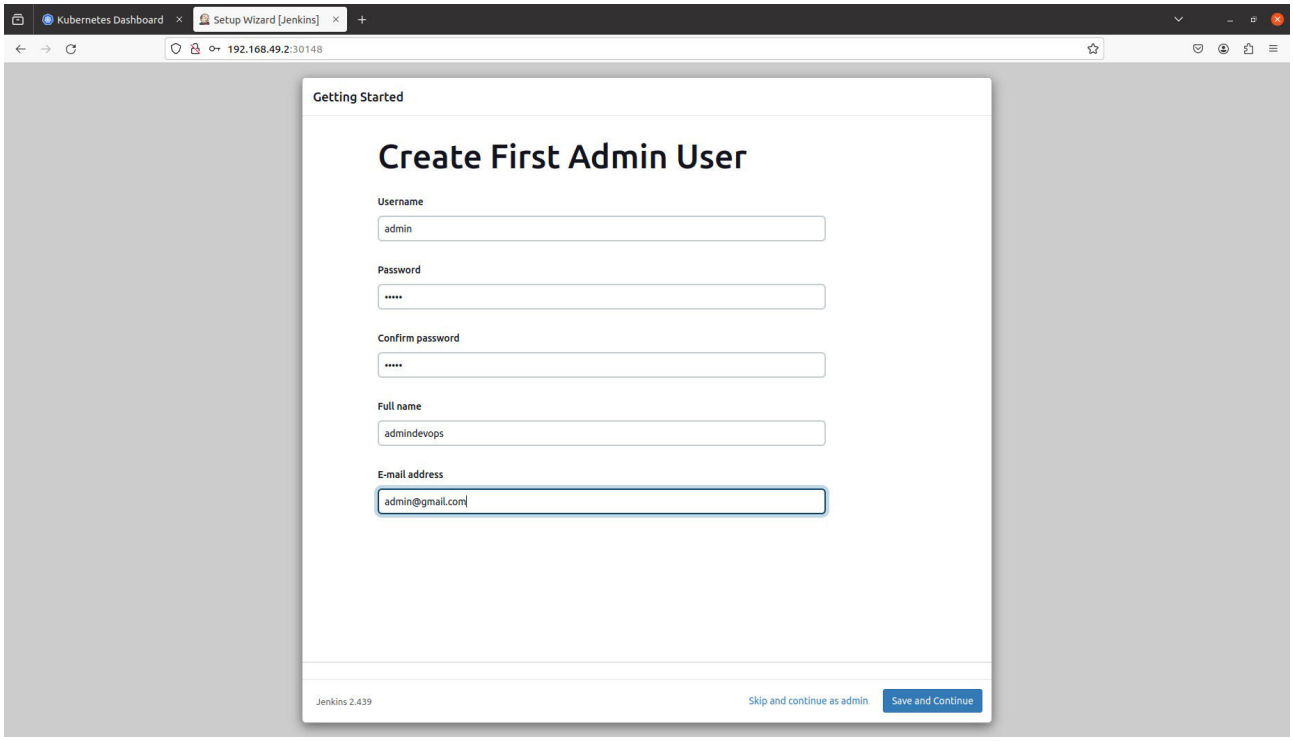
12)


Kubernetes Dashboard
Setup Wizard [Jenkins]
192.168.49.2:30148
Getting Started
Getting Started
Folders
OWASP Markup Formatter
Build Timeout
Credentials Binding
Timestamper
Workspace Cleanup
Ant
Gradle
Pipeline
GitHub Branch Source
Pipeline: GitHub Groovy Libraries
Pipeline: Stage View
Git
SSH Build Agents
Matrix Authorization Strategy
PAM Authentication
LDAP
Email Extension
Mailer
** - required dependency
Jenkins 2.439
192.168.49.2:30148/#

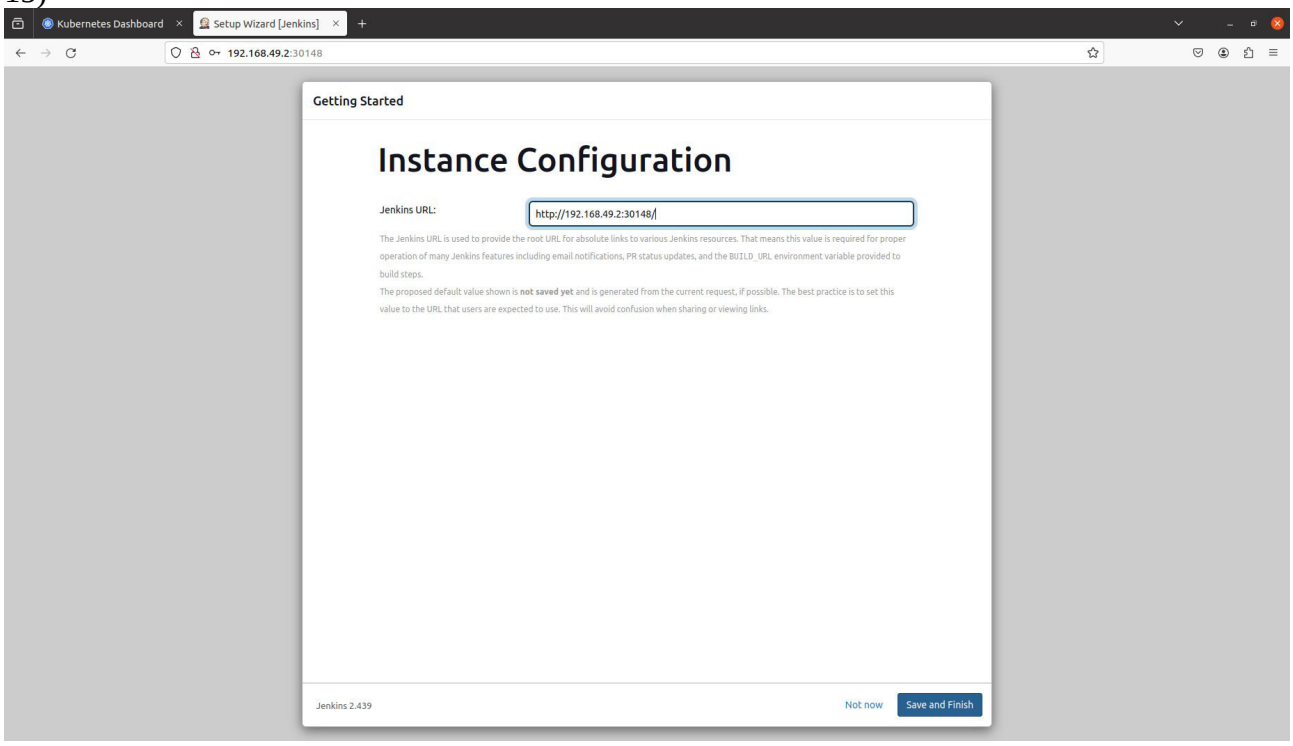
13)


Kubernetes Dashboard
Setup Wizard [Jenkins]
192.168.49.2:30148
Getting Started
Getting Started
Folders
OWASP Markup Formatter
Build Timeout
Credentials Binding
Timestamper
Workspace Cleanup
Ant
Gradle
Pipeline
GitHub Branch Source
Pipeline: GitHub Groovy Libraries
Pipeline: Stage View
Git
SSH Build Agents
Matrix Authorization Strategy
PAM Authentication
LDAP
Email Extension
Mailer
** Ionicons API
Folders
OWASP Markup Formatter
** JSON Path API
** Structs
** bouncycastle API
** Instance Identity
** JavaBeans Activation Framework (JAF) API
** JavaMail API
** Pipeline: Step API
** Token Macro
Build Timeout
** Credentials
** Plain Credentials
** Gson API
** Trilead API
** SSH Credentials
Credentials Binding
** SCM API
** Pipeline: API
** commons-lang3 v3.x Jenkins API
Timestamper
** Caffeine API
** Script Security
** JAXB
** SnakeYAML API
** Jackson 2 API
** commons-text API
** Pipeline: Supporting APIs
** - required dependency
Jenkins 2.439
192.168.49.2:30148/#

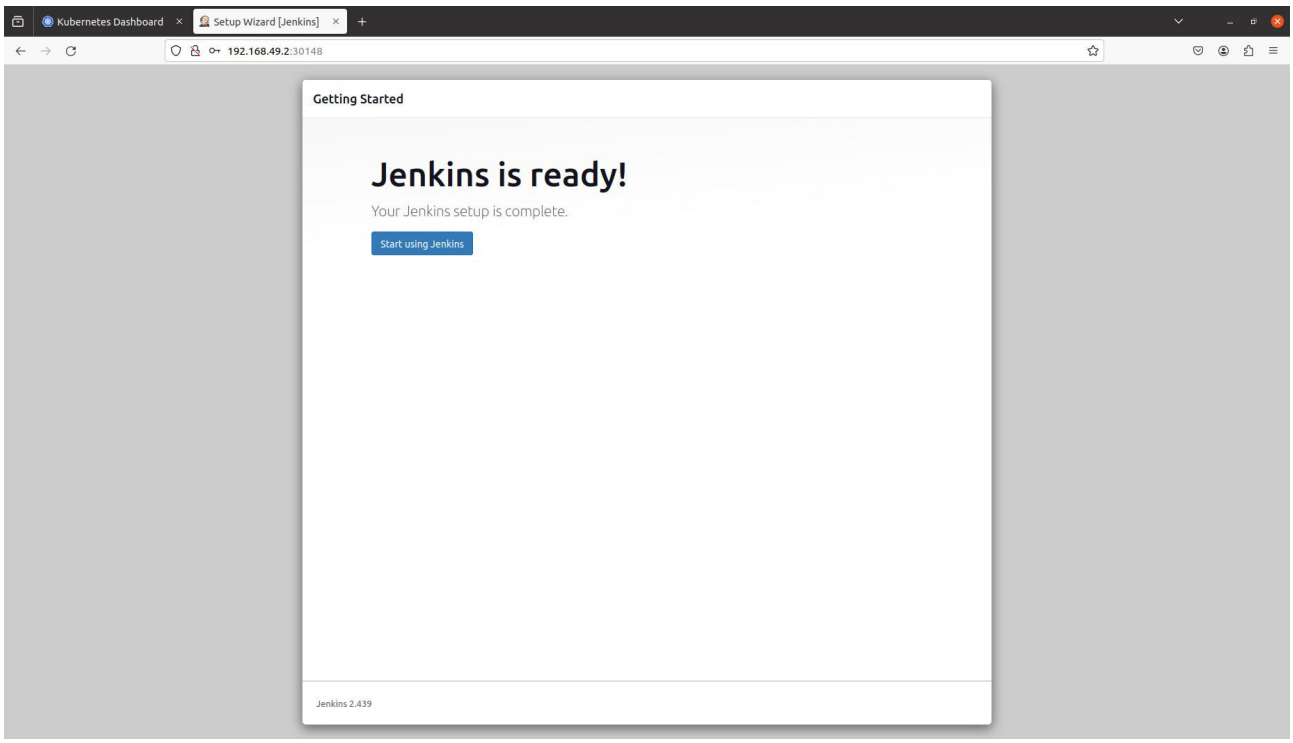
14)


Kubernetes Dashboard
Setup Wizard [Jenkins]
192.168.49.2:30148
Getting Started
Create First Admin User
Username
admin
Password
Confirm password
Full name
admindevops
E-mail address
admin@gmail.com
Jenkins 2.439
Skip and continue as admin
Save and Continue

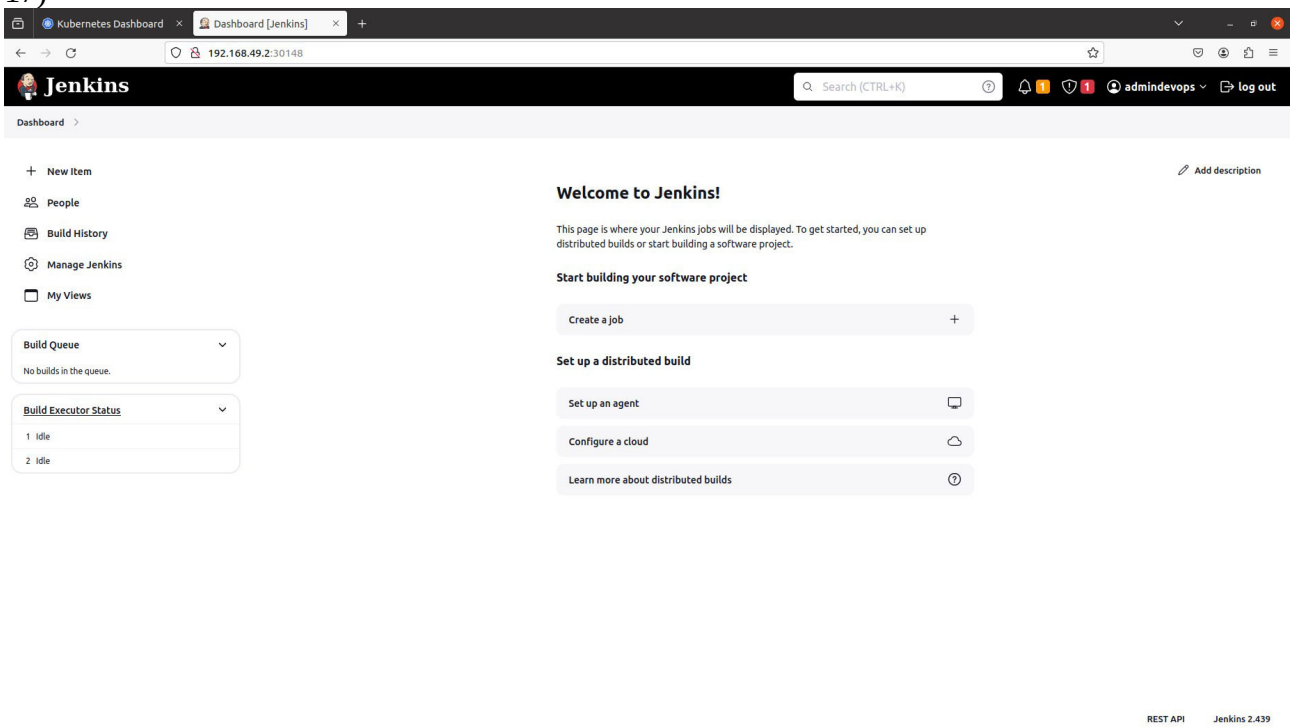
15)


Kubernetes Dashboard
Setup Wizard [Jenkins]
192.168.49.2:30148
Getting Started
Instance Configuration
Jenkins URL:
http://192.168.49.2:30148/
The Jenkins URL is used to provide the root URL for absolute links to various Jenkins resources. That means this value is required for proper operation of many Jenkins features including email notifications, PR status updates, and the BUILD_URL environment variable provided to build steps.
The proposed default value shown is not saved yet and is generated from the current request, if possible. The best practice is to set this value to the URL that users are expected to use. This will avoid confusion when sharing or viewing links.
Jenkins 2.439
Not now
Save and Finish

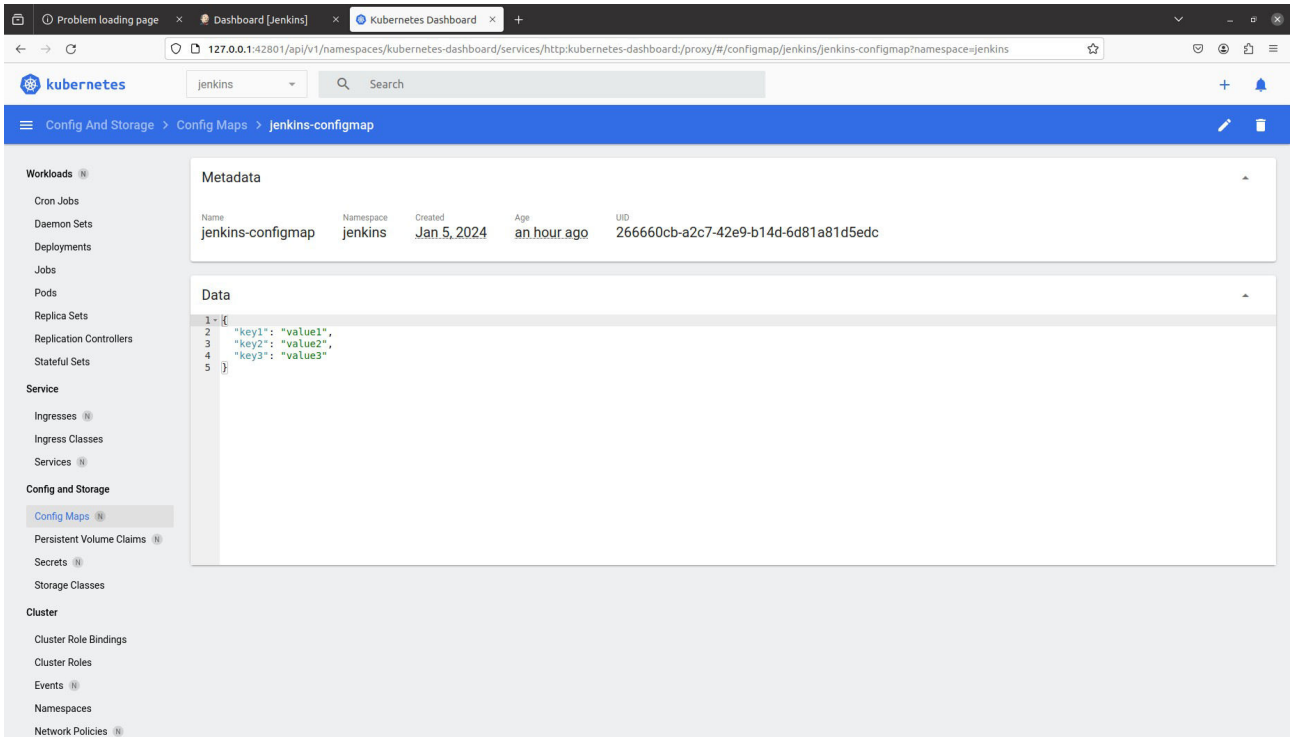
16)


Kubernetes Dashboard
Setup Wizard [Jenkins]
192.168.49.2:30148
Getting Started
Jenkins is ready!
Your Jenkins setup is complete.
Start using Jenkins
Jenkins 2.439

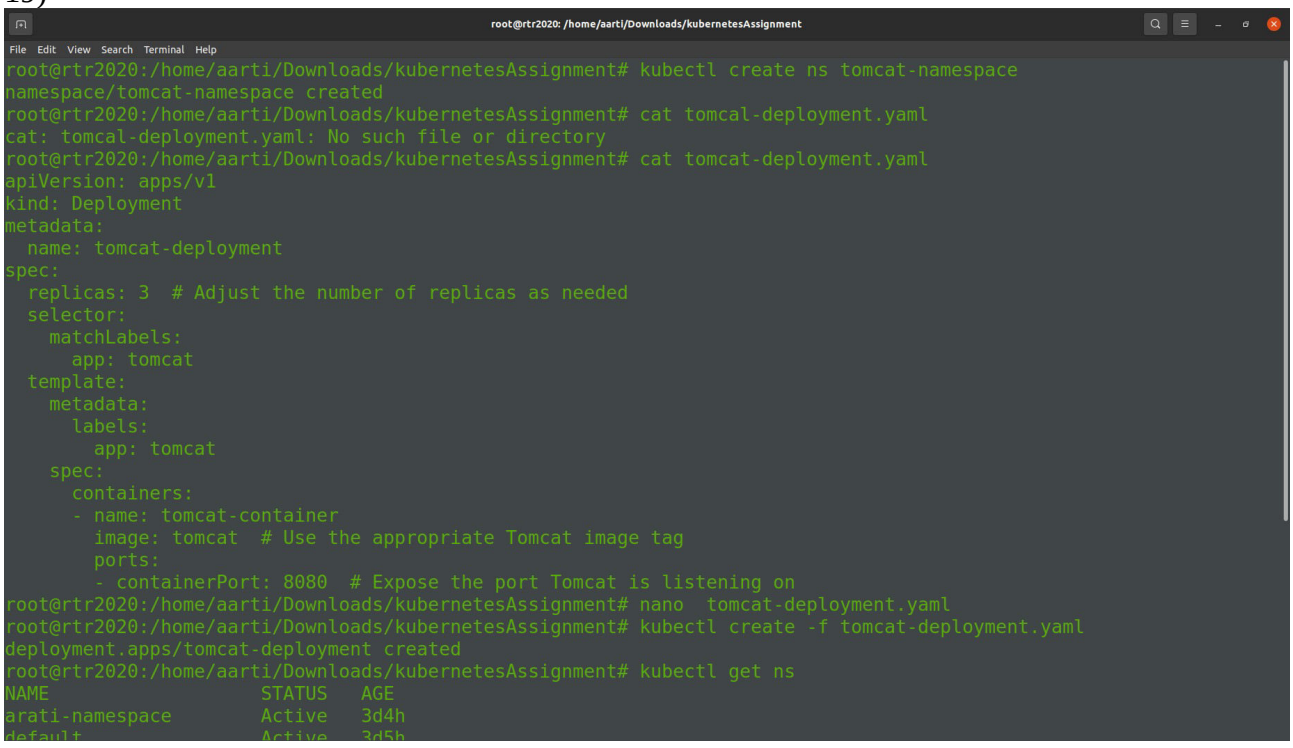
17)


Kubernetes Dashboard
Dashboard [Jenkins]
192.168.49.2:30148
Jenkins
Search (CTRL+K)
admindevops
log out
Dashboard
New Item
People
Build History
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status
1 Idle
2 Idle
Add description
Welcome to Jenkins!
This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.
Start building your software project
Create a job
Set up a distributed build
Set up an agent
Configure a cloud
Learn more about distributed builds
REST API
Jenkins 2.439

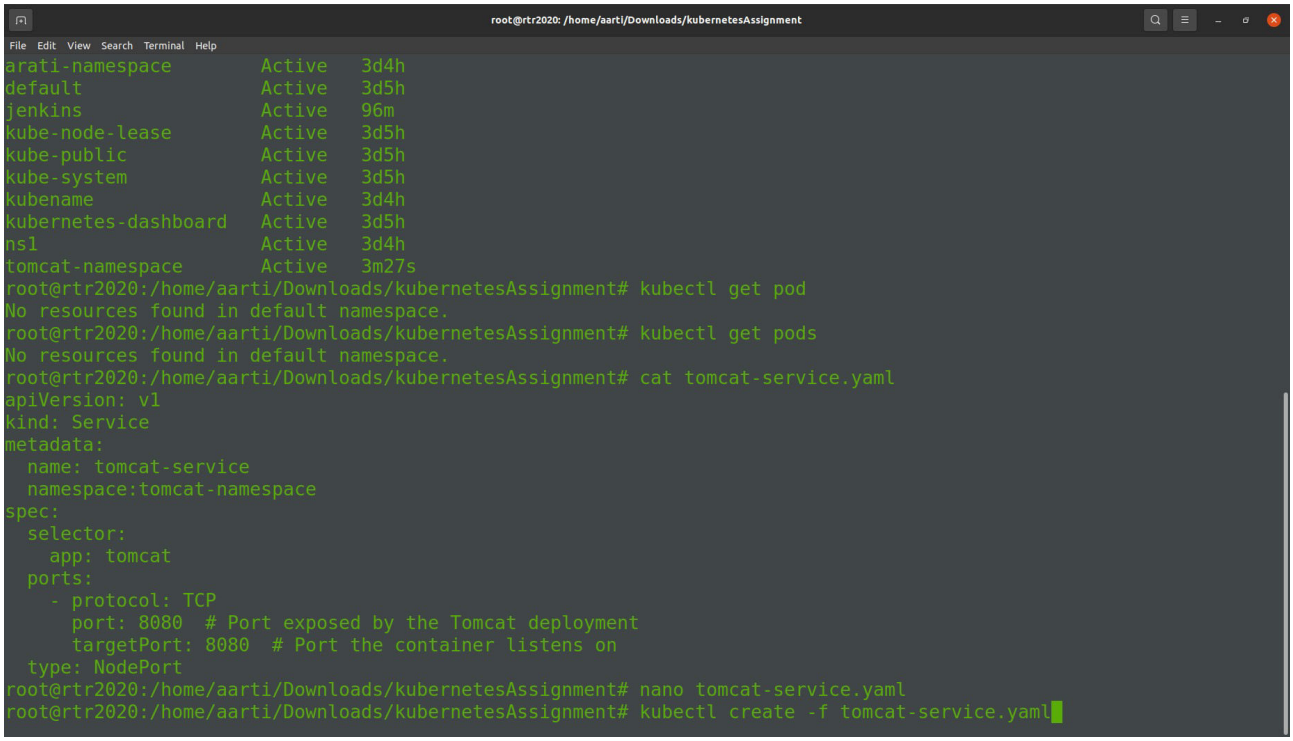
18)


Problem loading page
Dashboard [Jenkins]
Kubernetes Dashboard
127.0.0.1:42801/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/configmap/jenkins/jenkins-configmap?namespace=jenkins
kubernetes
jenkins
Search
Config And Storage > Config Maps > jenkins-configmap
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Metadata
Name
jenkins-configmap
Namespace
jenkins
Created
Jan 5, 2024
Age
an hour ago
UID
266660cb-a2c7-42e9-b14d-6d81a81d5edc
Data
{
"key1": "value1",
"key2": "value2",
"key3": "value3"
}

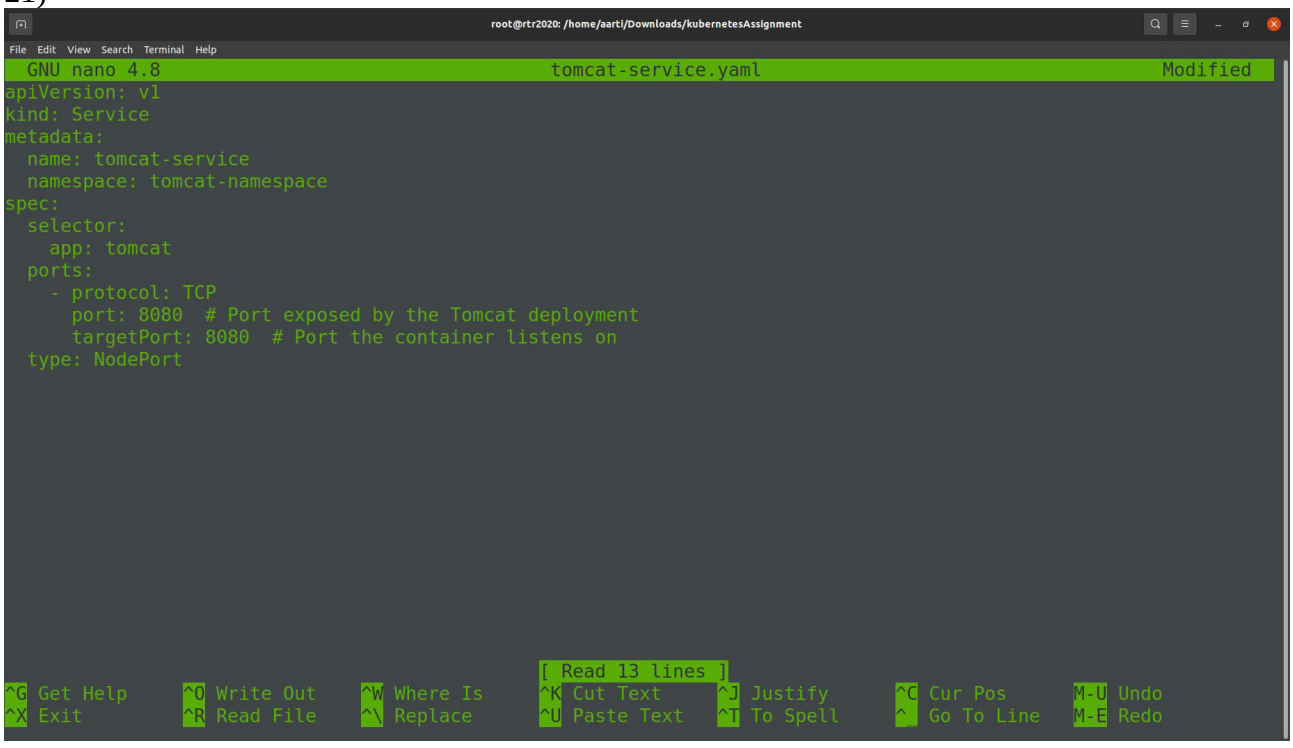
19)


root@rtr2020: /home/aarti/Downloads/kubernetesAssignment
File Edit View Search Terminal Help
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create ns tomcat-namespace
namespace/tomcat-namespace created
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# cat tomcal-deployment.yaml
cat: tomcal-deployment.yaml: No such file or directory
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# cat tomcat-deployment.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
name: tomcat-deployment
spec:
replicas: 3 # Adjust the number of replicas as needed
selector:
matchLabels:
app: tomcat
template:
metadata:
labels:
app: tomcat
spec:
containers:
- name: tomcat-container
image: tomcat # Use the appropriate Tomcat image tag
ports:
- containerPort: 8080 # Expose the port Tomcat is listening on
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano tomcat-deployment.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f tomcat-deployment.yaml
deployment.apps/tomcat-deployment created
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl get ns
NAME STATUS AGE
arati-namespace Active 3d4h
default Active 3d5h

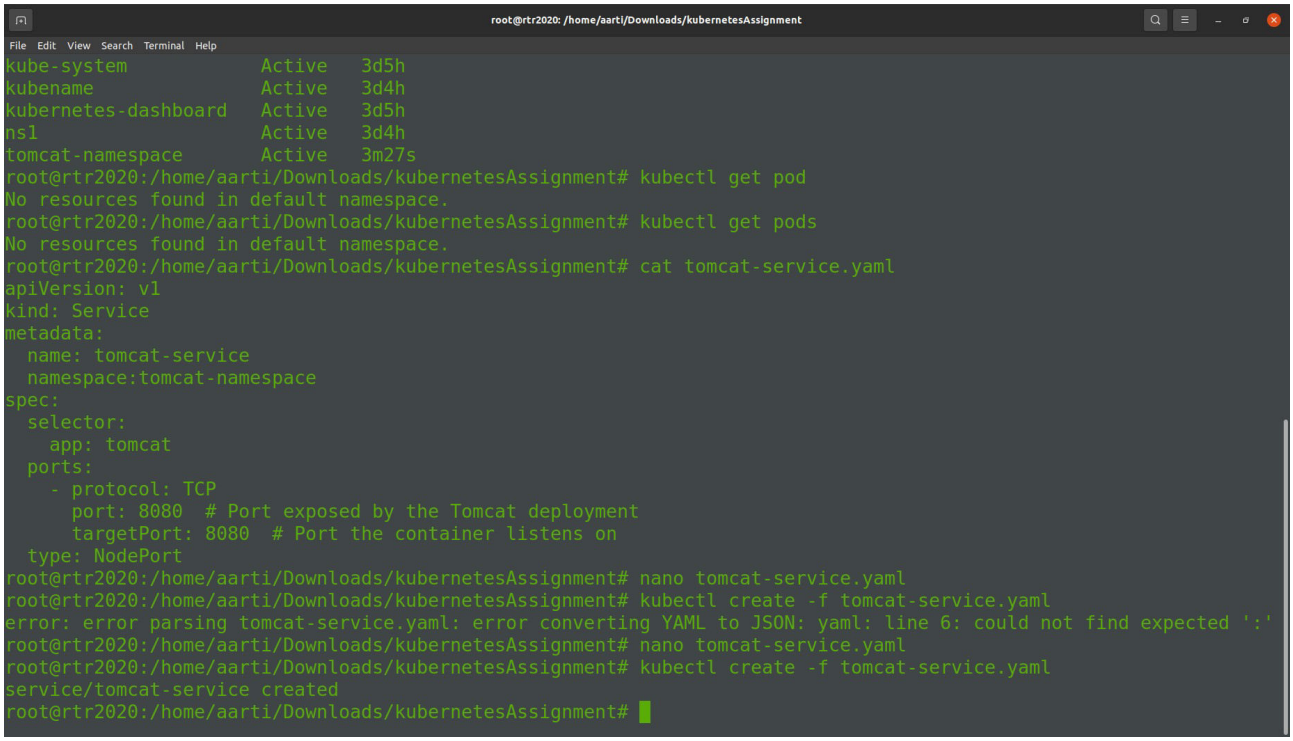
20)


root@rtr2020: /home/aarti/Downloads/kubernetesAssignment
File Edit View Search Terminal Help
arati-namespace Active 3d4h
default Active 3d5h
jenkins Active 96m
kube-node-lease Active 3d5h
kube-public Active 3d5h
kube-system Active 3d5h
kubename Active 3d4h
kubernetes-dashboard Active 3d5h
ns1 Active 3d4h
tomcat-namespace Active 3m27s
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl get pod
No resources found in default namespace.
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl get pods
No resources found in default namespace.
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# cat tomcat-service.yaml
apiVersion: v1
kind: Service
metadata:
name: tomcat-service
namespace:tomcat-namespace
spec:
selector:
app: tomcat
ports:
- protocol: TCP
port: 8080 # Port exposed by the Tomcat deployment
targetPort: 8080 # Port the container listens on
type: NodePort
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano tomcat-service.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f tomcat-service.yaml

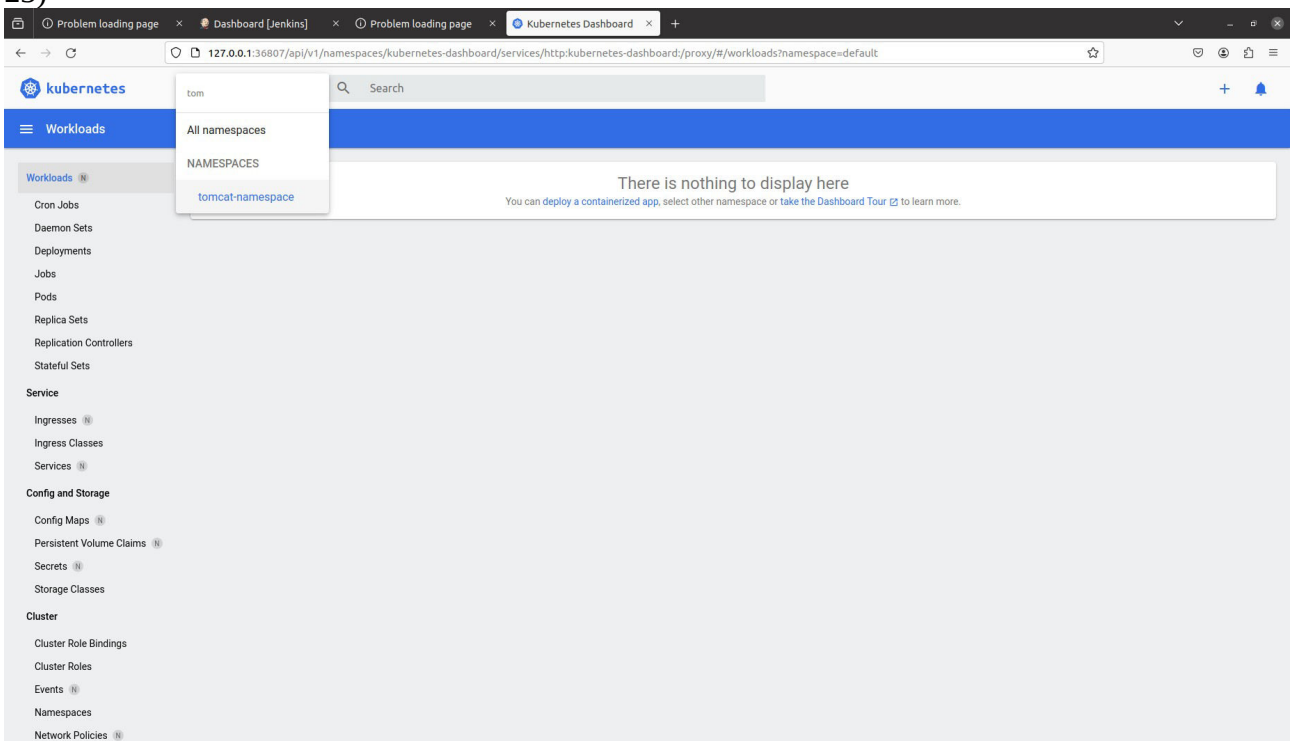
21)


root@rtr2020: /home/aarti/Downloads/kubernetesAssignment
File Edit View Search Terminal Help
GNU nano 4.8 tomcat-service.yaml Modified
apiVersion: v1
kind: Service
metadata:
name: tomcat-service
namespace: tomcat-namespace
spec:
selector:
app: tomcat
ports:
- protocol: TCP
port: 8080 # Port exposed by the Tomcat deployment
targetPort: 8080 # Port the container listens on
type: NodePort
[ Read 13 lines ]
^G Get Help ^O Write Out ^W Where Is ^K Cut Text ^J Justify ^C Cur Pos M-U Undo
^X Exit ^R Read File ^\ Replace ^U Paste Text ^T To Spell ^ Go To Line M-E Redo

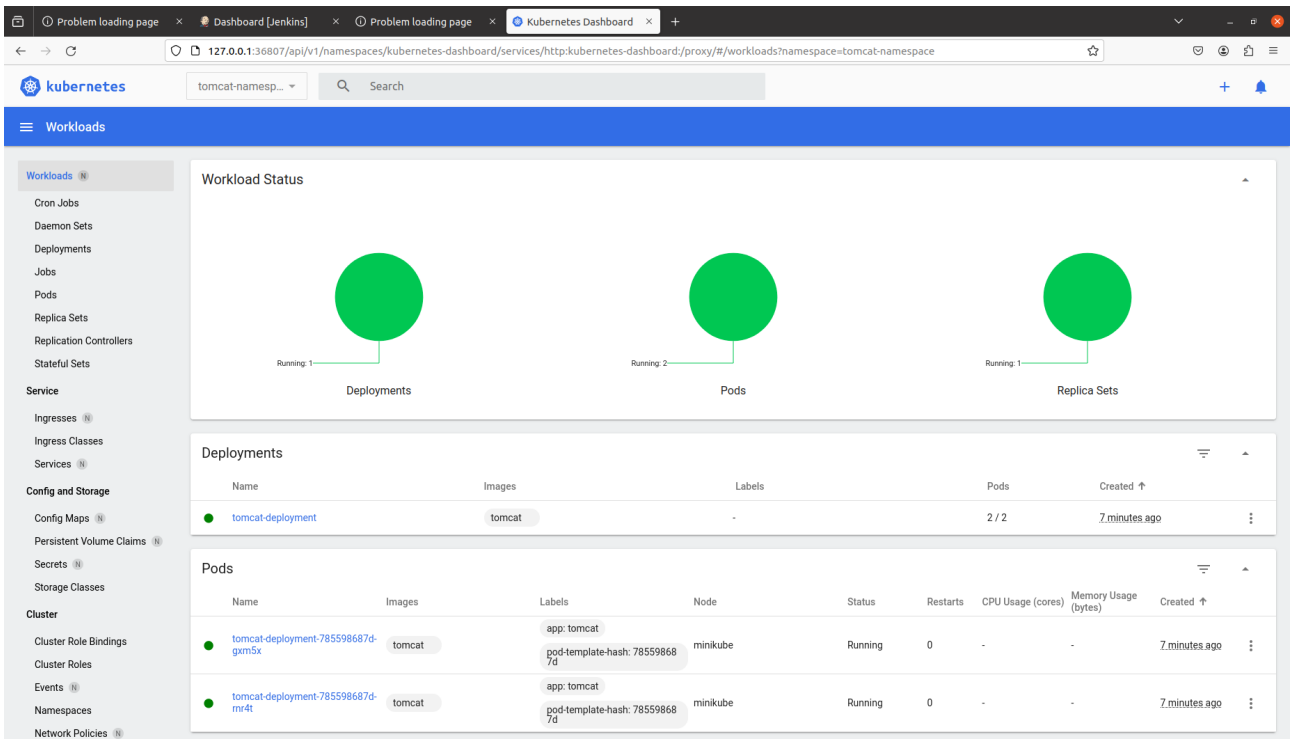
22)


root@rtr2020: /home/aarti/Downloads/kubernetesAssignment
File Edit View Search Terminal Help
kube-system Active 3d5h
kubename Active 3d4h
kubernetes-dashboard Active 3d5h
ns1 Active 3d4h
tomcat-namespace Active 3m27s
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl get pod
No resources found in default namespace.
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl get pods
No resources found in default namespace.
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# cat tomcat-service.yaml
apiVersion: v1
kind: Service
metadata:
name: tomcat-service
namespace:tomcat-namespace
spec:
selector:
app: tomcat
ports:
- protocol: TCP
port: 8080 # Port exposed by the Tomcat deployment
targetPort: 8080 # Port the container listens on
type: NodePort
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano tomcat-service.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f tomcat-service.yaml
error: error parsing tomcat-service.yaml: error converting YAML to JSON: yaml: line 6: could not find expected ':'
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano tomcat-service.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f tomcat-service.yaml
service/tomcat-service created
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment#

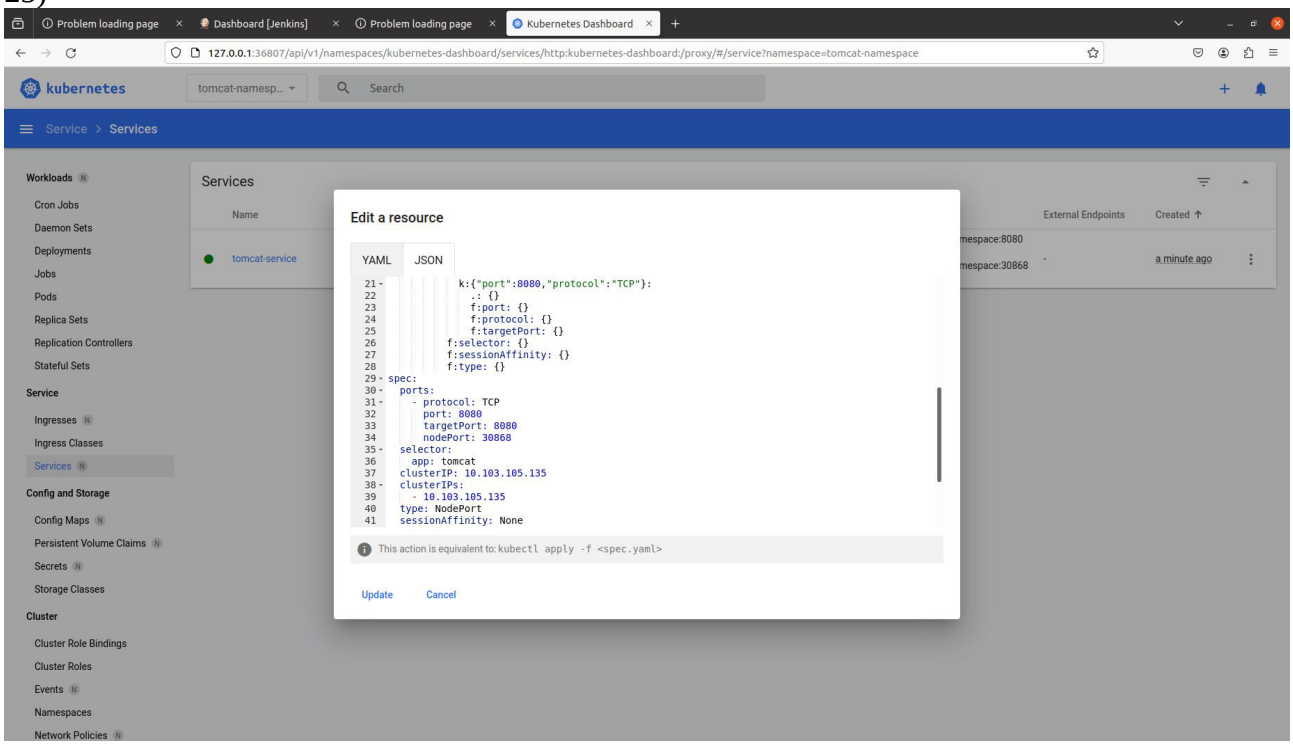
23)


Problem loading page
Dashboard [Jenkins]
Problem loading page
Kubernetes Dashboard
127.0.0.1:36807/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/workloads?namespace=default
kubernetes
tom
All namespaces
NAMESPACES
tomcat-namespace
Search
Workloads
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
There is nothing to display here
You can deploy a containerized app, select other namespace or take the Dashboard Tour to learn more.

24)


Problem loading page
Dashboard [Jenkins]
Problem loading page
Kubernetes Dashboard
127.0.0.1:36807/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/workloads?namespace=tomcat-namespace
kubernetes
tomcat-namesp...
Search
Workloads
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Workload Status
Running: 1
Deployments
Running: 2
Pods
Running: 1
Replica Sets
Deployments
Name
Images
Labels
Pods
Created
tomcat-deployment
tomcat
-
2 / 2
7 minutes ago
Pods
Name
Images
Labels
Node
Status
Restarts
CPU Usage (cores)
Memory Usage (bytes)
Created
tomcat-deployment-785598687d-gxm5x
tomcat
app: tomcat
pod-template-hash: 785598687d
minikube
Running
0
-
-
7 minutes ago
tomcat-deployment-785598687d-rnr4t
tomcat
app: tomcat
pod-template-hash: 785598687d
minikube
Running
0
-
-
7 minutes ago

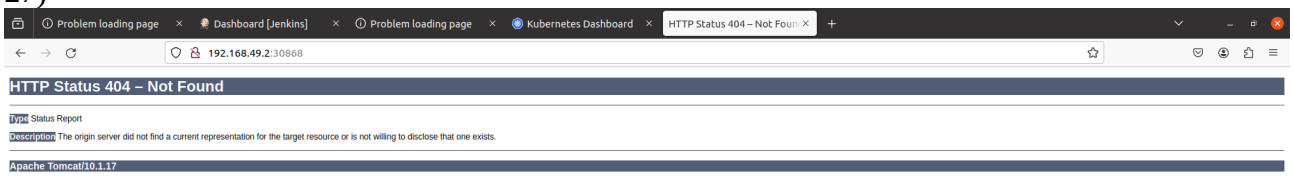
25)


Problem loading page
Dashboard [Jenkins]
Problem loading page
Kubernetes Dashboard
127.0.0.1:36807/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/service?namespace=tomcat-namespace
kubernetes
tomcat-namesp...
Search
Service > Services
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Services
Name
External Endpoints
Created
tomcat-service
a minute ago
Edit a resource
YAML
JSON
k:{"port":8080,"protocol":"TCP"}:
.: {}
f:port: {}
f:protocol: {}
f:targetPort: {}
f:selector: {}
f:sessionAffinity: {}
f:type: {}
spec:
ports:
- protocol: TCP
port: 8080
targetPort: 8080
nodePort: 30868
selector:
app: tomcat
clusterIP: 10.103.105.135
clusterIPs:
- 10.103.105.135
type: NodePort
sessionAffinity: None
This action is equivalent to: kubectl apply -f <spec.yaml>
Update
Cancel

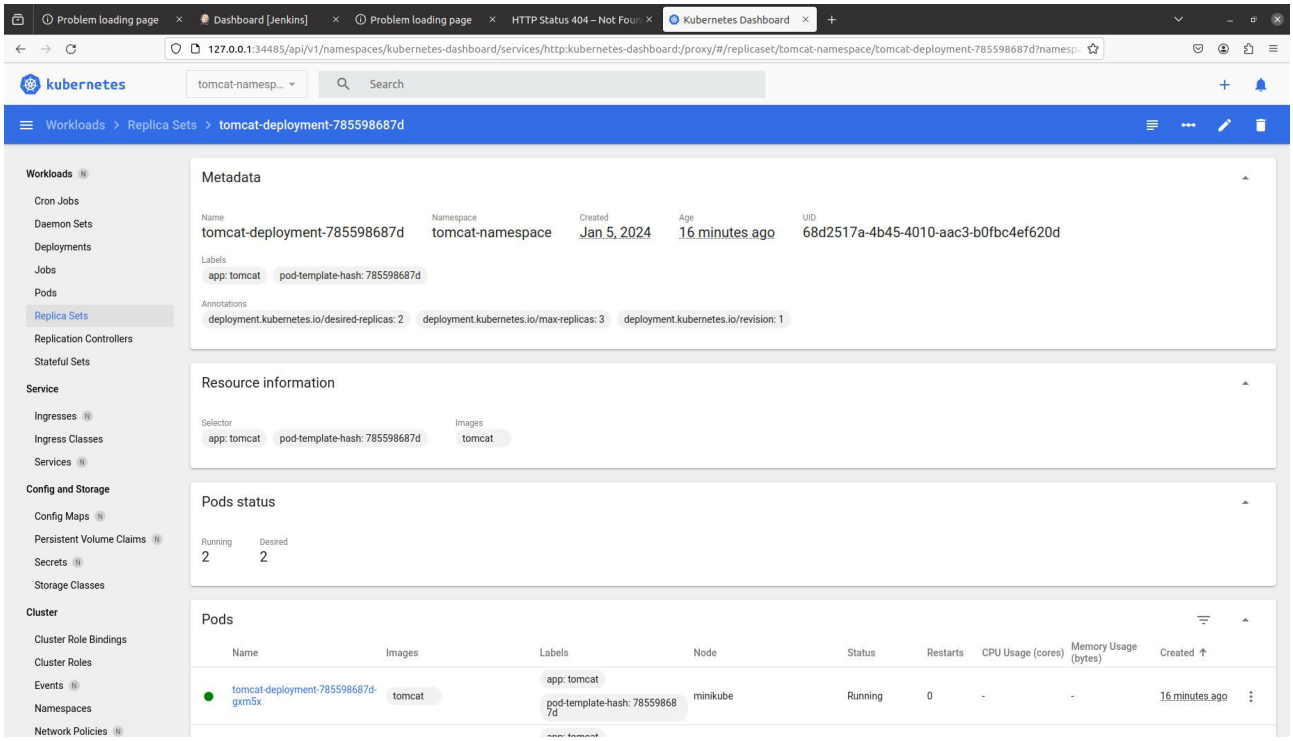
26)

```
root@rtr2020: /home/aarti/Downloads/kubernetesAssignment
File  Edit  View  Search  Terminal  Help
No resources found in default namespace.
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# cat tomcat-service.yaml
apiVersion: v1
kind: Service
metadata:
  name: tomcat-service
  namespace:tomcat-namespace
spec:
  selector:
    app: tomcat
  ports:
    - protocol: TCP
      port: 8080  # Port exposed by the Tomcat deployment
      targetPort: 8080  # Port the container listens on
  type: NodePort
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano tomcat-service.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f tomcat-service.yaml
error: error parsing tomcat-service.yaml: error converting YAML to JSON: yaml: line 6: could not find expected ':'
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# nano tomcat-service.yaml
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# kubectl create -f tomcat-service.yaml
service/tomcat-service created
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# minikube dashboard
🤔  Verifying dashboard health ...
🚀  Launching proxy ...
🤔  Verifying proxy health ...
http://127.0.0.1:36807/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/
^C
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment# minikube ip
192.168.49.2
root@rtr2020:/home/aarti/Downloads/kubernetesAssignment#
```

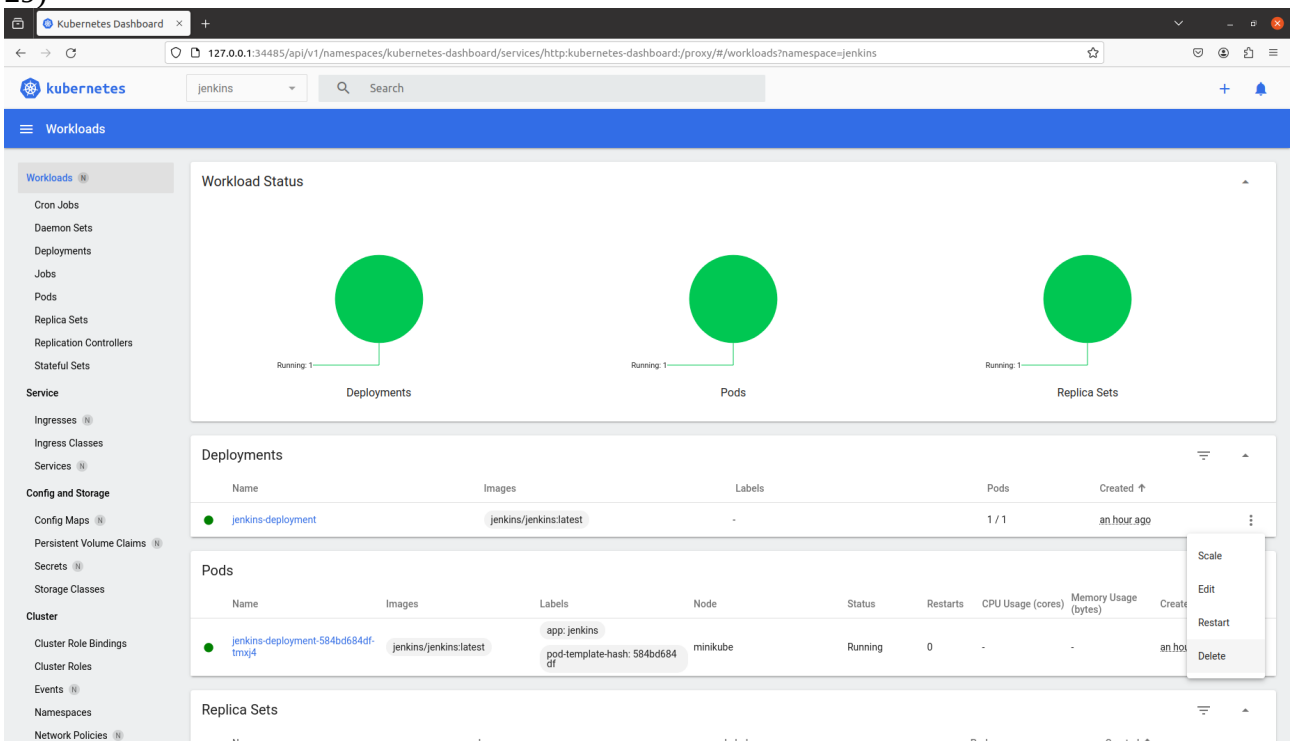
27)



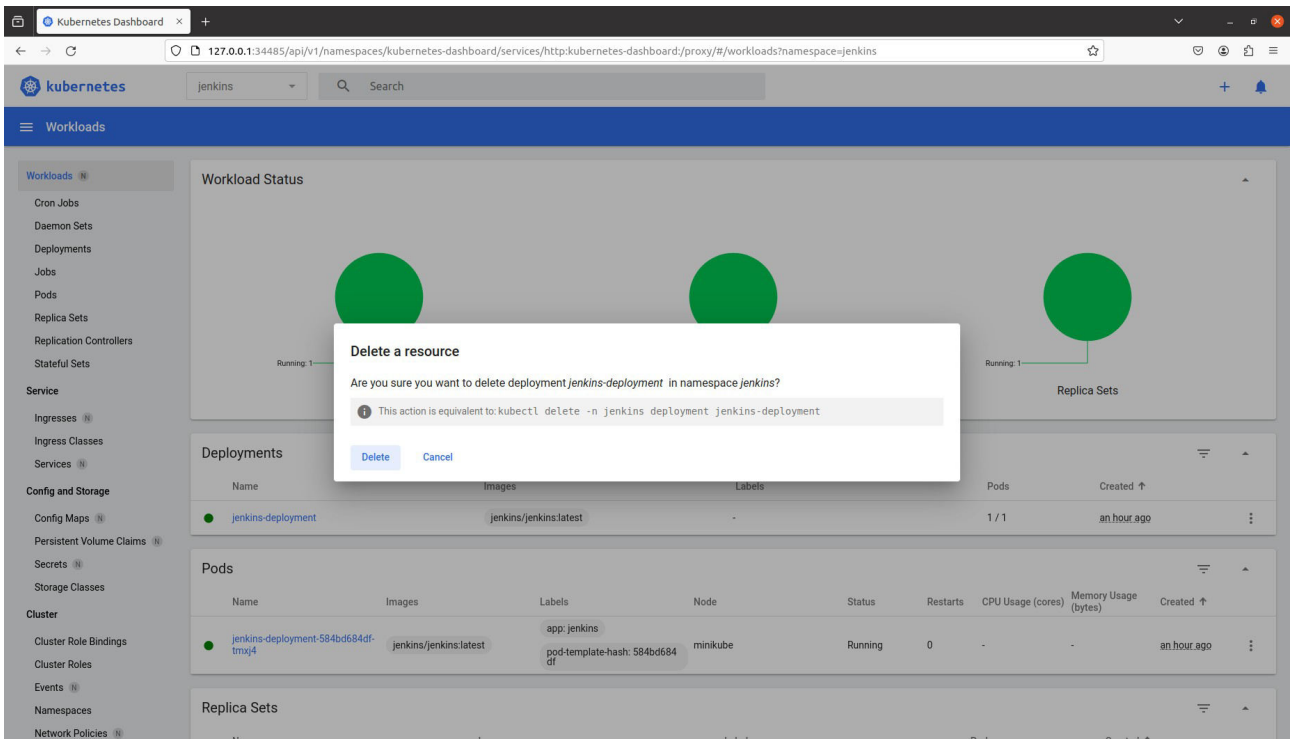

28)


Problem loading page
Dashboard [Jenkins]
Problem loading page
HTTP Status 404 – Not Found
Kubernetes Dashboard
127.0.0.1:34485/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/replicaset/tomcat-namespace/tomcat-deployment-785598687d?namespace
kubernetes
tomcat-namesp...
Search
Workloads > Replica Sets > tomcat-deployment-785598687d
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Metadata
Name
tomcat-deployment-785598687d
Namespace
tomcat-namespace
Created
Jan 5, 2024
Age
16 minutes ago
UID
68d2517a-4b45-4010-aac3-b0fbc4ef620d
Labels
app: tomcat
pod-template-hash: 785598687d
Annotations
deployment.kubernetes.io/desired-replicas: 2
deployment.kubernetes.io/max-replicas: 3
deployment.kubernetes.io/revision: 1
Resource information
Selector
app: tomcat
pod-template-hash: 785598687d
Images
tomcat
Pods status
Running
2
Desired
2
Pods
Name
Images
Labels
Node
Status
Restarts
CPU Usage (cores)
Memory Usage (bytes)
Created
tomcat-deployment-785598687d-gxm5x
tomcat
app: tomcat
pod-template-hash: 785598687d
minikube
Running
0
16 minutes ago

29)


Kubernetes Dashboard
127.0.0.1:34485/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/workloads?namespace=jenkins
kubernetes
jenkins
Search
Workloads
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Workload Status
Running: 1
Deployments
Running: 1
Pods
Running: 1
Replica Sets
Deployments
Name
Images
Labels
Pods
Created
jenkins-deployment
jenkins/jenkins:latest
-
1 / 1
an hour ago
Scale
Edit
Restart
Delete
Pods
Name
Images
Labels
Node
Status
Restarts
CPU Usage (cores)
Memory Usage (bytes)
jenkins-deployment-584bd684df-tmxj4
jenkins/jenkins:latest
app: jenkins
pod-template-hash: 584bd684df
minikube
Running
0
Replica Sets

30)


Kubernetes Dashboard
127.0.0.1:34485/api/v1/namespaces/kubernetes-dashboard/services/http:kubernetes-dashboard:/proxy/#/workloads?namespace=jenkins
kubernetes
jenkins
Search
Workloads
Workloads
Cron Jobs
Daemon Sets
Deployments
Jobs
Pods
Replica Sets
Replication Controllers
Stateful Sets
Service
Ingresses
Ingress Classes
Services
Config and Storage
Config Maps
Persistent Volume Claims
Secrets
Storage Classes
Cluster
Cluster Role Bindings
Cluster Roles
Events
Namespaces
Network Policies
Workload Status
Running: 1
Running: 1
Replica Sets
Delete a resource
Are you sure you want to delete deployment jenkins-deployment in namespace jenkins?
This action is equivalent to: kubectl delete -n jenkins deployment jenkins-deployment
Delete
Cancel
Deployments
Name
Images
Labels
Pods
Created
jenkins-deployment
jenkins/jenkins:latest
-
1 / 1
an hour ago
Pods
Name
Images
Labels
Node
Status
Restarts
CPU Usage (cores)
Memory Usage (bytes)
Created
jenkins-deployment-584bd684df-tmxj4
jenkins/jenkins:latest
app: jenkins
pod-template-hash: 584bd684df
minikube
Running
0
-
-
an hour ago
Replica Sets