

Instances | EC2 Management Co x EC2 Instance Connect x +

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-03d5a71bf0df2...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

```
[ec2-user@ip-172-31-12-246 ~]$ kubectl get deployment
No resources found in default namespace.
[ec2-user@ip-172-31-12-246 ~]$
```

i-03d5a71bf0df22cbe (kubernetes)
PublicIPs: 43.204.227.8 PrivateIPs: 172.31.12.246

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Instances | EC2 Management Co x EC2 Instance Connect x +

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-03d5a71bf0df2...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

```
[ec2-user@ip-172-31-12-246 ~]$ kubectl get deployment
No resources found in default namespace.
[ec2-user@ip-172-31-12-246 ~]$ kubectl get rc
No resources found in default namespace.
[ec2-user@ip-172-31-12-246 ~]$ kubectl get rs
No resources found in default namespace.
[ec2-user@ip-172-31-12-246 ~]$ kubectl get pod
NAME                                READY   STATUS    RESTARTS   AGE
nfs-client-provisioner-57c6f46b94-p221s 0/1     Terminating    0          3h24m
[ec2-user@ip-172-31-12-246 ~]$
```

i-03d5a71bf0df22cbe (kubernetes)
PublicIPs: 43.204.227.8 PrivateIPs: 172.31.12.246

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https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-03d5a71bf0df2...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

```
[ec2-user@ip-172-31-12-246 ~]$ kubectl create deployment myd --image=httpd
deployment.apps/myd created
[ec2-user@ip-172-31-12-246 ~]$ kubectl get pod
NAME READY STATUS RESTARTS AGE
myd-58d9df868f-1c972 1/1 Running 0 6s
nfs-client-provisioner-57c6f46b94-p221s 0/1 Terminating 0 3h26m
[ec2-user@ip-172-31-12-246 ~]$ kubectl get rs
NAME DESIRED CURRENT READY AGE
myd-58d9df868f 1 1 1 13s
[ec2-user@ip-172-31-12-246 ~]$ kubectl get rc
No resources found in default namespace.
[ec2-user@ip-172-31-12-246 ~]$
```

i-03d5a71bf0df22cbe (kubernetes)

PublicIPs: 43.204.227.8 PrivateIPs: 172.31.12.246

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Instances | EC2 Management Co x EC2 Instance Connect x +

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-03d5a71bf0df2...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

```
myd-58d9df868f-1c972 1/1 Running 0 6s
nfs-client-provisioner-57c6f46b94-p221s 0/1 Terminating 0 3h26m
[ec2-user@ip-172-31-12-246 ~]$ kubectl get rs
NAME DESIRED CURRENT READY AGE
myd-58d9df868f 1 1 1 13s
[ec2-user@ip-172-31-12-246 ~]$ kubectl get rc
No resources found in default namespace.
[ec2-user@ip-172-31-12-246 ~]$ kubectl get all
NAME READY STATUS RESTARTS AGE
pod/myd-58d9df868f-1c972 1/1 Running 0 29s
pod/nfs-client-provisioner-57c6f46b94-p221s 0/1 Terminating 0 3h26m
NAME TYPE CLUSTER-IP EXTERNAL-IP PORT(S) AGE
Service/kubernetes ClusterIP 10.96.0.1 <none> 443/TCP 25m
NAME READY UP-TO-DATE AVAILABLE AGE
deployment.apps/myd 1/1 1 1 29s
NAME DESIRED CURRENT READY AGE
replicaset.apps/myd-58d9df868f 1 1 1 29s
[ec2-user@ip-172-31-12-246 ~]$
```

i-03d5a71bf0df22cbe (kubernetes)

PublicIPs: 43.204.227.8 PrivateIPs: 172.31.12.246

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Instances | EC2 Management Co x EC2 Instance Connect x +

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-03d5a71bf0df22cbe...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

```

NAME: myd READY STATUS RESTARTS AGE
[ec2-user@ip-172-31-12-246 ~]$ kubectl describe deployment/myd
Name: myd
Namespace: default
CreationTimestamp: Sun, 18 Dec 2022 11:00:39 +0000
Labels: app=myd
Annotations: deployment.kubernetes.io/revision: 1
Selector: app=myd
Replicas: 1 desired | 1 updated | 1 total | 1 available | 0 unavailable
StrategyType: RollingUpdate
MinReadySeconds: 0
RollingUpdateStrategy: 25% max unavailable, 25% max surge
Pod Template:
  Labels: app=myd
  Containers:
    httpd:
      Image: httpd
      Port: <none>
      Host Port: <none>
      Environment: <none>
      Mounts: <none>

```

i-03d5a71bf0df22cbe (kubernetes)

PublicIPs: 43.204.227.8 PrivateIPs: 172.31.12.246

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Instances | EC2 Management Co x EC2 Instance Connect x +

https://ap-south-1.console.aws.amazon.com/ec2/home?region=ap-south-1#Instances:

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New EC2 Experience Tell us what you think

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Instances

Instances

Instance Types
Launch Templates
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Reserved Instances
Dedicated Hosts
Capacity Reservations

Images

Instances (1/6) Info

Find instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status
docker for pro...	i-0f108efbe333ae7f6	Stopped	t2.small	-	No alarms
webserver	i-0625fe8e037739f03	Running	t2.micro	2/2 checks passed	No alarms
kubernetes	i-03d5a71bf0df22cbe	Running	t2.large	2/2 checks passed	No alarms

Instance: i-0625fe8e037739f03 (webserver)

Details Security Networking Storage Status checks Monitoring Tags

▼ Instance summary Info

Instance ID i-0625fe8e037739f03 (webserver)	Public IPv4 address 3.110.31.50 open address	Private IPv4 addresses 172.31.32.217
IPv6 address -	Instance state Pending	Public IPv4 DNS -

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Connect to instance | EC2 Manag... x EC2 Instance Connect x EC2 Instance Connect x +

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-south-1&connType=standard&instance...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

```
Docs: https://docs.docker.com
[root@ip-172-31-32-217 ~]# systemctl status docker
● docker.service - Docker Application Container Engine
   Loaded: loaded (/usr/lib/systemd/system/docker.service; disabled; vendor preset: disabled)
   Active: active (running) since Sun 2022-12-18 11:06:10 UTC; 25s ago
     Docs: https://docs.docker.com
    Process: 3671 ExecStartPre=/usr/libexec/docker/docker-setup-runtimes.sh (code=exited, status=0/SUCCESS)
    Process: 3670 ExecStartPre=/bin/mkdir -p /run/docker (code=exited, status=0/SUCCESS)
   Main PID: 3674 (dockerd)
      Tasks: 7
     Memory: 85.4M
    CGroup: /system.slice/docker.service
            └─3674 /usr/bin/dockerd -H fd:// --containerd=/run/containerd/containerd.sock --default-ulimit nofile=32768:65536

Dec 18 11:06:09 ip-172-31-32-217.ap-south-1.compute.internal dockerd[3674]: time="2022-12-18T11:06:09.689768627Z" level=info msg="[gr...ay2"
Dec 18 11:06:09 ip-172-31-32-217.ap-south-1.compute.internal dockerd[3674]: time="2022-12-18T11:06:09.704898843Z" level=warning msg="...ght"
Dec 18 11:06:09 ip-172-31-32-217.ap-south-1.compute.internal dockerd[3674]: time="2022-12-18T11:06:09.70522265Z" level=warning msg="...ice"
Dec 18 11:06:09 ip-172-31-32-217.ap-south-1.compute.internal dockerd[3674]: time="2022-12-18T11:06:09.706157579Z" level=info msg="Loa...rt."
Dec 18 11:06:09 ip-172-31-32-217.ap-south-1.compute.internal dockerd[3674]: time="2022-12-18T11:06:09.934948534Z" level=info msg="Def...ess"
Dec 18 11:06:09 ip-172-31-32-217.ap-south-1.compute.internal dockerd[3674]: time="2022-12-18T11:06:09.974938477Z" level=info msg="Loa...ne."
Dec 18 11:06:10 ip-172-31-32-217.ap-south-1.compute.internal dockerd[3674]: time="2022-12-18T11:06:10.067241590Z" level=info msg="Doc...0.17"
```

i-0625fe8e037739f03 (webserver)
PublicIPs: 3.110.214.181 PrivateIPs: 172.31.32.217

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Connect to instance | EC2 Manag... x EC2 Instance Connect x EC2 Instance Connect x Repositories | Docker Hub x +

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-south-1&connType=standard&instance...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

```
FROM centos
RUN cd /etc/yum.repos.d/
RUN sed -i 's/mirrorlist/#mirrorlist/g' /etc/yum.repos.d/CentOS-*
RUN sed -i 's|#baseurl=http://mirror.centos.org|baseurl=http://vault.centos.org|' /etc/yum.repos.d/CentOS-*
RUN yum install httpd net-tools -y
COPY index.html /var/www/html
```

"Dockerfile" 7L, 279B 6, 1 All

i-0625fe8e037739f03 (webserver)
PublicIPs: 3.110.214.181 PrivateIPs: 172.31.32.217

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Connect to instance | EC2 Manag... x EC2 Instance Connect x EC2 Instance Connect x Repositories | Docker Hub x +

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-south-1&connType=standard&instance...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

```
[root@ip-172-31-32-217 first]# vim Dockerfile
[root@ip-172-31-32-217 first]# docker build -t eshwar29/myweb:v1 .
Sending build context to Docker daemon 3.072kB
Step 1/6 : FROM centos
--> 5d0da3dc9764
Step 2/6 : RUN cd /etc/yum.repos.d/
--> Using cache
--> 2ceedf0bc6f9
Step 3/6 : RUN sed -i 's/mirrorlist/#mirrorlist/g' /etc/yum.repos.d/CentOS-*
--> Using cache
--> 0delfbe71bdd
Step 4/6 : RUN sed -i 's|#baseurl=http://mirror.centos.org|baseurl=http://vault.centos.org|g' /etc/yum.repos.d/CentOS-*
--> Using cache
--> 01aed9385ef
Step 5/6 : RUN yum install httpd net-tools -y
--> Using cache
--> e66039afb507
Step 6/6 : COPY index.html /var/www/html
--> Using cache
--> b5cb056751aa
Successfully built b5cb056751aa
```

i-0625fe8e037739f03 (webserver)

PublicIPs: 3.110.214.181 PrivateIPs: 172.31.32.217

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Connect to instance | EC2 Manag... x EC2 Instance Connect x EC2 Instance Connect x Repositories | Docker Hub x +

https://ap-south-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=ap-south-1&connType=standard&instance...

aws Services Search [Alt+S] Mumbai The Eshwar Kanna

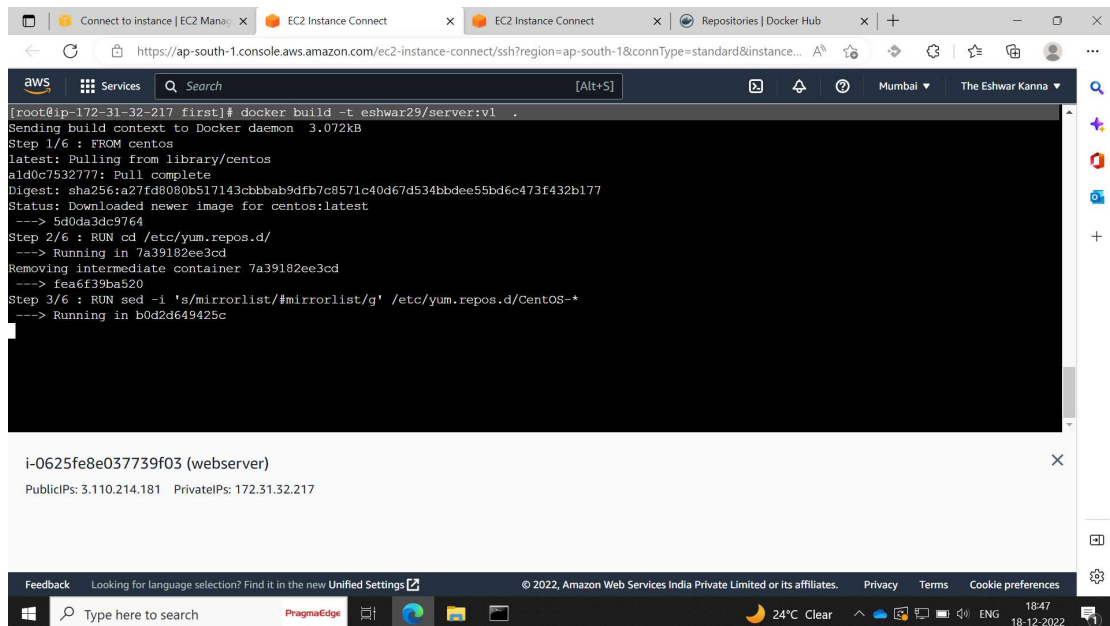
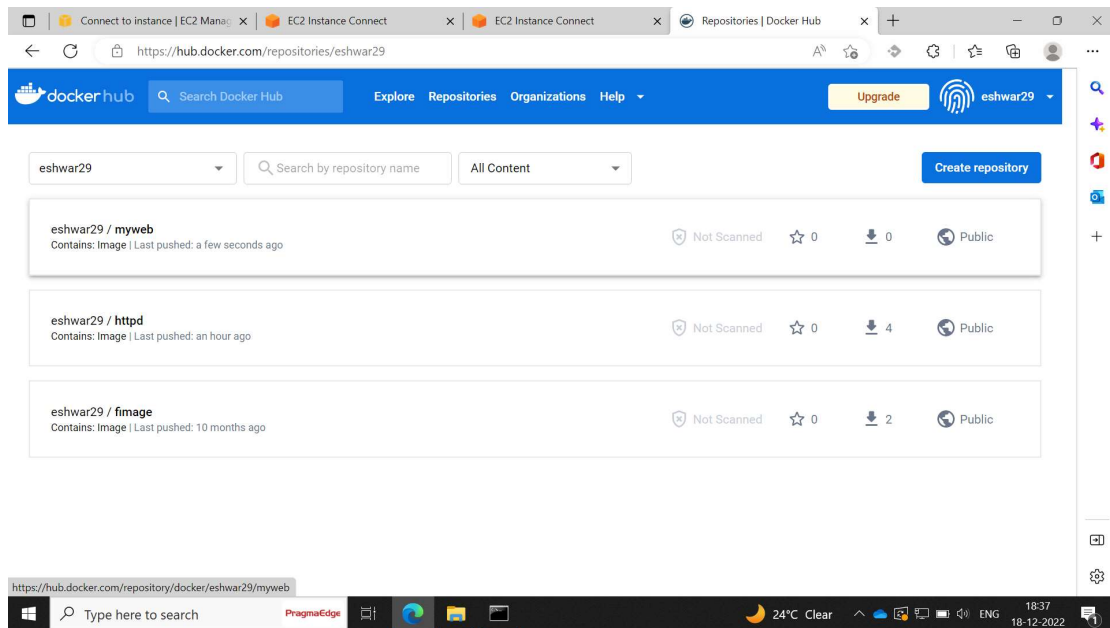
```
eshwar29/httpd v2 21d722a72036 2 hours ago 280MB
eshwar29/mywebserver v1 21d722a72036 2 hours ago 280MB
myweb latest 21d722a72036 2 hours ago 280MB
eshwar29/httpd latest 18f24f5dc11c 3 days ago 280MB
centos latest 5d0da3dc9764 15 months ago 231MB
[root@ip-172-31-32-217 first]# docker login
Authenticating with existing credentials...
WARNING! Your password will be stored unencrypted in /root/.docker/config.json.
Configure a credential helper to remove this warning. See
https://docs.docker.com/engine/reference/commandline/login/#credentials-store
Login Succeeded
[root@ip-172-31-32-217 first]# docker push eshwar29/myweb:v1
The push refers to repository [docker.io/eshwar29/myweb]
bab6542293e2: Mounted from eshwar29/httpd
a3e38b412049: Mounted from eshwar29/httpd
fafeb822e955: Mounted from eshwar29/httpd
55c48d26d8f2: Mounted from eshwar29/httpd
74dd4dc08fa: Mounted from eshwar29/httpd
v1: digest: sha256:996ae5c25a74b0b3f24b47b0b60860af9c322d0c5dec6fa6da5e08cd4d583970 size: 1364
[root@ip-172-31-32-217 first]#
```

i-0625fe8e037739f03 (webserver)

PublicIPs: 3.110.214.181 PrivateIPs: 172.31.32.217

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```
ec2-user@ip-172-31-46-175:~$ kubectl get secrets
No resources found in default namespace.
[ec2-user@ip-172-31-46-175 ~]$ kubectl get ns
NAME                STATUS   AGE
default              Active   10m
kube-node-lease      Active   10m
kube-public          Active   10m
kube-system          Active   10m
[ec2-user@ip-172-31-46-175 ~]$ kubectl get secrets -n default
No resources found in default namespace.
[ec2-user@ip-172-31-46-175 ~]$ kubectl create secret -h
Create a secret using specified subcommand.

Available Commands:
  docker-registry  Create a secret for use with a Docker registry
  generic           Create a secret from a local file, directory, or literal value
  tls              Create a TLS secret

Usage:
  kubectl create secret [flags] [options]

Use "kubectl <command> --help" for more information about a given command.
Use "kubectl options" for a list of global command-line options (applies to all commands).
[ec2-user@ip-172-31-46-175 ~]$
```

```
Select ec2-user@ip-172-31-46-175:~$ kubectl create secret docker-registry -h
Create a new secret for use with Docker registries.

Dockerconfig secrets are used to authenticate against Docker registries.

When using the Docker command line to push images, you can authenticate to a given registry by running:
'$ docker login DOCKER_REGISTRY_SERVER --username=DOCKER_USER --password=DOCKER_PASSWORD --email=DOCKER_EMAIL'.

That produces a ~/.dockercfg file that is used by subsequent 'docker push' and 'docker pull' commands to authenticate
to the registry. The email address is optional.

When creating applications, you may have a Docker registry that requires authentication. In order for the
nodes to pull images on your behalf, they must have the credentials. You can provide this information
by creating a dockercfg secret and attaching it to your service account.

Examples:
# If you don't already have a .dockercfg file, you can create a dockercfg secret directly by using:
kubectl create secret docker-registry my-secret --docker-server=DOCKER_REGISTRY_SERVER --docker-username=DOCKER_USER
--docker-password=DOCKER_PASSWORD --docker-email=DOCKER_EMAIL

# Create a new secret named my-secret from ~/.docker/config.json
kubectl create secret docker-registry my-secret --from-file=.dockerconfigjson=path/to/.docker/config.json

Options:
--allow-missing-template-keys=true:
  If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to
  goyaml and jsonpath output formats.

--append-hash=false:
```

```
Select ec2-user@ip-172-31-46-175:~$

When creating applications, you may have a Docker registry that requires authentication. In order for the
nodes to pull images on your behalf, they must have the credentials. You can provide this information
by creating a dockercfg secret and attaching it to your service account.

Examples:
# If you don't already have a .dockercfg file, you can create a dockercfg secret directly by using:
kubect1 create secret docker-registry my-secret --docker-server=DOCKER_REGISTRY_SERVER --docker-username=DOCKER_USER
--docker-password=DOCKER_PASSWORD --docker-email=DOCKER_EMAIL

# Create a new secret named my-secret from ~/.docker/config.json
kubect1 create secret docker-registry my-secret --from-file=.dockerconfigjson=path/to/.docker/config.json

Options:
--allow-missing-template-keys=true:
    If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to
    golang and jsonpath output formats.

--append-hash=false:
    Append a hash of the secret to its name.

--docker-email='':
    Email for Docker registry

--docker-password='':
    Password for Docker registry authentication

--docker-server='https://index.docker.io/v1/':
    Server location for Docker registry
```

```
Select ec2-user@ip-172-31-46-175:~$

Examples:
# If you don't already have a .dockercfg file, you can create a dockercfg secret directly by using:
kubect1 create secret docker-registry my-secret --docker-server=DOCKER_REGISTRY_SERVER --docker-username=DOCKER_USER
--docker-password=DOCKER_PASSWORD --docker-email=DOCKER_EMAIL

# Create a new secret named my-secret from ~/.docker/config.json
kubect1 create secret docker-registry my-secret --from-file=.dockerconfigjson=path/to/.docker/config.json

Options:
--allow-missing-template-keys=true:
    If true, ignore any errors in templates when a field or map key is missing in the template. Only applies to
    golang and jsonpath output formats.

--append-hash=false:
    Append a hash of the secret to its name.

--docker-email='':
    Email for Docker registry

--docker-password='':
    Password for Docker registry authentication

--docker-server='https://index.docker.io/v1/':
    Server location for Docker registry

--docker-username='':
    Username for Docker registry authentication

--dry-run='none':
```



```
ec2-user@ip-172-31-46-175:~$ kubectl create generic -h
Use "kubectl options" for a list of global command-line options (applies to all commands).
[ec2-user@ip-172-31-46-175 ~]$ kubectl create generic -h
Create a resource from a file or from stdin.

JSON and YAML formats are accepted.

Examples:
# Create a pod using the data in pod.json
kubectl create -f ./pod.json

# Create a pod based on the JSON passed into stdin
cat pod.json | kubectl create -f -

# Edit the data in registry.yaml in JSON then create the resource using the edited data
kubectl create -f registry.yaml --edit -o json

Available Commands:
clusterrole          Create a cluster role
clusterrolebinding   Create a cluster role binding for a particular cluster role
configmap            Create a config map from a local file, directory or literal value
cronjob              Create a cron job with the specified name
deployment            Create a deployment with the specified name
ingress              Create an ingress with the specified name
job                  Create a job with the specified name
namespace            Create a namespace with the specified name
poddisruptionbudget  Create a pod disruption budget with the specified name
priorityclass         Create a priority class with the specified name
quota                Create a quota with the specified name
role                  Create a role with single rule
rolebinding           Create a role binding with the specified name

```

```
ec2-user@ip-172-31-46-175:~$ kubectl create generic mysecret --from-literal=u=kanna --from-literal=p=redhat
error: unknown flag: --from-literal
See 'kubectl create --help' for usage.
[ec2-user@ip-172-31-46-175 ~]$ kubectl create secret generic mysecret --from-literal=u=kanna --from-literal=p=redhat
secret/mysecret created
[ec2-user@ip-172-31-46-175 ~]$ kubectl get secrets
NAME      TYPE      DATA   AGE
myscret   Opaque    2        19s
[ec2-user@ip-172-31-46-175 ~]$ kubectl describe secrets/mysecret
Name:      mysecret
Namespace: default
Labels:    <none>
Annotations: <none>

Type: Opaque

Data
====
u: 5 bytes
p: 6 bytes
[ec2-user@ip-172-31-46-175 ~]$
```

The screenshot shows a web browser with multiple tabs. The active tab is titled "kubernetes mysql-deploy" and displays the URL <https://kubernetes.io/docs/tutorials/stateful-application/mysql-wordpress-persistent-volume/>. The page content includes a sidebar with navigation links like "Home", "Getting started", "Concepts", "Tasks", and "Tutorials". The main content area has the heading "Create PersistentVolumeClaims and PersistentVolumes" and text explaining that MySQL and Wordpress require a PersistentVolume to store data. A right-hand sidebar shows "Versions" set to "English" and links for "Edit this page", "Create child page", "Create an issue", and "Print entire section".

```

Select ec2-user@ip-172-31-46-175:~
Installed products updated.

Installed:
  wget-1.21.1-7.el9.x86_64

Complete!
[ec2-user@ip-172-31-46-175 ~]$ wget https://kubernetes.io/examples/application/wordpress/mysql-deployment.yaml
--2022-12-19 11:55:15-- https://kubernetes.io/examples/application/wordpress/mysql-deployment.yaml
Resolving kubernetes.io (kubernetes.io)... 147.75.40.148
Connecting to kubernetes.io (kubernetes.io)|147.75.40.148|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1193 (1.2K) [application/x-yaml]
Saving to: 'mysql-deployment.yaml'

mysql-deployment.yaml      100%[=====]

2022-12-19 11:55:16 (10.3 MB/s) - 'mysql-deployment.yaml' saved [1193/1193]

[ec2-user@ip-172-31-46-175 ~]$ ls
kubect1.sha256  mysql-deployment.yaml
[ec2-user@ip-172-31-46-175 ~]$ wget https://kubernetes.io/examples/application/wordpress/wordpress-deployment.yaml
--2022-12-19 11:55:30-- https://kubernetes.io/examples/application/wordpress/wordpress-deployment.yaml
Resolving kubernetes.io (kubernetes.io)... 147.75.40.148
Connecting to kubernetes.io (kubernetes.io)|147.75.40.148|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1278 (1.2K) [application/x-yaml]
Saving to: 'wordpress-deployment.yaml'

wordpress-deployment.yaml 100%[=====]
  
```

```
ec2-user@ip-172-31-46-175:~$ cat mysql-deployment.yaml
length: 1193 (1.2K) [application/x-yaml]
Saving to: 'mysql-deployment.yaml'

mysql-deployment.yaml          100%[=====]

2022-12-19 11:55:16 (10.3 MB/s) - 'mysql-deployment.yaml' saved [1193/1193]

[ec2-user@ip-172-31-46-175 ~]$ ls
kubect1.sha256  mysql-deployment.yaml
[ec2-user@ip-172-31-46-175 ~]$ wget https://kubernetes.io/examples/application/wordpress/wordpress-deployment.yaml
--2022-12-19 11:55:30-- https://kubernetes.io/examples/application/wordpress/wordpress-deployment.yaml
Resolving kubernetes.io (kubernetes.io)... 147.75.40.148
Connecting to kubernetes.io (kubernetes.io)[147.75.40.148]:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1278 (1.2K) [application/x-yaml]
Saving to: 'wordpress-deployment.yaml'

wordpress-deployment.yaml     100%[=====]

2022-12-19 11:55:30 (24.6 MB/s) - 'wordpress-deployment.yaml' saved [1278/1278]

[ec2-user@ip-172-31-46-175 ~]$ ls
kubect1.sha256  mysql-deployment.yaml  wordpress-deployment.yaml
[ec2-user@ip-172-31-46-175 ~]$
[ec2-user@ip-172-31-46-175 ~]$ sudo vim mysql-deployment.yaml
[ec2-user@ip-172-31-46-175 ~]$
```

```
ec2-user@ip-172-31-46-175:~$ ls
kubect1.sha256  mysql-deployment.yaml  wordpress-deployment.yaml
[ec2-user@ip-172-31-46-175 ~]$
```

```
ec2-user@ip-172-31-46-175:~$ cat mysql-deployment.yaml
apiVersion: v1
kind: Service
metadata:
  name: wordpress-mysql
  labels:
    app: wordpress
spec:
  ports:
    - port: 3306
  selector:
    app: wordpress
    tier: mysql
  clusterIP: None
---
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: mysql-pv-claim
  labels:
    app: wordpress
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 20Gi
---
apiVersion: apps/v1
kind: Deployment
metadata:
  name: wordpress-mysql
  labels:
    app: wordpress
spec:
  selector:
    matchLabels:
      app: wordpress
      tier: mysql
  template:
    metadata:
      labels:
        app: wordpress
        tier: mysql
    spec:
      containers:
        - name: mysql
          image: mysql:5.6
          env:
            - name: MYSQL_ROOT_PASSWORD
              valueFrom:
                secretKeyRef:
                  name: mysql-pass
                  key: password
          ports:
            - containerPort: 3306
          volumeMounts:
            - name: mysql-persistent-storage
              mountPath: /var/lib/mysql
      volumes:
        - name: mysql-persistent-storage
          persistentVolumeClaim:
            claimName: mysql-pv-claim
```

```
ec2-user@ip-172-31-46-175:~$ cat wordpress-deployment.yaml
apiVersion: apps/v1
kind: Deployment
metadata:
  name: wordpress
  labels:
    app: wordpress
spec:
  selector:
    matchLabels:
      app: wordpress
  template:
    metadata:
      labels:
        app: wordpress
    spec:
      containers:
        - name: wordpress
          image: wordpress:latest
          ports:
            - containerPort: 80
          volumeMounts:
            - name: wordpress-data
              mountPath: /var/www/html
      volumes:
        - name: wordpress-data
          persistentVolumeClaim:
            claimName: wordpress-pv-claim
```

```
[ec2-user@ip-172-31-46-175:~]$ sudo vim kustomization.yaml
[ec2-user@ip-172-31-46-175 ~]$ [ec2-user@ip-172-31-46-175 ~]$ kubectl create -k .
secret/mysql-pass-8d668bfdfmt created
service/wordpress created
service/wordpress-mysql created
persistentvolumeclaim/mysql-pv-claim created
persistentvolumeclaim/wp-pv-claim created
deployment.apps/wordpress created
deployment.apps/wordpress-mysql created
[ec2-user@ip-172-31-46-175 ~]$
```

```
apiVersion: kustomize.config.k8s.io/v1beta1
kind: Kustomization
secretGenerator:
- name: mysql-pass
  literals:
  - password=redhat
resources:
- mysql-deployment.yaml
- wordpress-deployment.yaml
```

```
ec2-user@ip-172-31-46-175:~$ kubectl get svc
NAME                TYPE          CLUSTER-IP    EXTERNAL-IP    PORT(S)          AGE
kubernetes           ClusterIP     10.96.0.1      <none>          443/TCP           56m
wordpress            LoadBalancer  10.109.92.245  <pending>       80:31725/TCP      51s
wordpress-mysql      ClusterIP     None           <none>          3306/TCP          51s
ec2-user@ip-172-31-46-175:~$ kubectl get deploy
NAME                READY    UP-TO-DATE    AVAILABLE    AGE
web                 0/1      1              0            53m
web2                0/1      1              0            52m
wordpress           1/1      1              1            67s
wordpress-mysql     1/1      1              1            67s
ec2-user@ip-172-31-46-175:~$ kubectl get secrets
NAME                TYPE      DATA      AGE
mysecret            Opaque    2           37m
mysql-pass-8d668bfdmt Opaque    1           78s
ec2-user@ip-172-31-46-175:~$ kubectl get pvc
NAME                STATUS    VOLUME                                     CAPACITY   ACCESS MODES   STORAGECLASS   AGE
mysql-pv-claim      Bound     pvc-ae79ecfb-200c-415f-8c97-251d76b4f0f6  20Gi       RWO             standard       83s
wp-pv-claim         Bound     pvc-1044cae2-03e6-4090-9da0-5d3a96e44cbd  20Gi       RWO             standard       83s
ec2-user@ip-172-31-46-175:~$
```