

## 22nd june:

```
rs2 - Notepad
File Edit Format View Help
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  name: rsweb1
spec:
  replicas: 1
  selector:
    matchLabels:
      env: dev
    matchExpressions:
      - { key: env, operator: In, values: [ dev ] }
  template:
    metadata:
      name: mypod1
      labels:
        env: dev
    spec:
      containers:
        - name: "mycon"
          image: vimal13/apache-webserver-php
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create -f rs2.yml
replicaset.apps/rsweb1 created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME          READY  STATUS      RESTARTS  AGE
rsweb1-cn78q  0/1    ContainerCreating  0         7s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl exec -it rsweb1-cn78q -- bash
[root@rsweb1-cn78q /]# ls
anaconda-post.log boot etc lib lost+found mnt proc run srv tmp var
bin          dev  home lib64 media  opt root sbin sys usr
[root@rsweb1-cn78q /]# rpm -q httpd
httpd-2.4.6-45.el7.centos.4.x86_64
[root@rsweb1-cn78q /]# cd /var/www/html
[root@rsweb1-cn78q html]# ls
index.php
[root@rsweb1-cn78q html]# cat > vishesh.html
hii hru??
[root@rsweb1-cn78q html]# exit
exit
```

```
C:\Users\user\Desktop\kube_cloud>kubectl delete pod rsweb1-cn78q
pod "rsweb1-cn78q" deleted
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME          READY STATUS  RESTARTS  AGE
rsweb1-br68t  1/1   Running  0         84s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl exec -it rsweb1-br68t -- bash
[root@rsweb1-br68t /]# ls
anaconda-post.log boot etc lib lost+found mnt proc run srv tmp var
bin dev home lib64 media opt root sbin sys usr
[root@rsweb1-br68t /]# cd /var/www/html
[root@rsweb1-br68t html]# ls
index.php
[root@rsweb1-br68t html]#
C:\Users\user\Desktop\kube_cloud>kubectl delete all --all
pod "rsweb1-br68t" deleted
service "kubernetes" deleted
replicaset.apps "rsweb1" deleted
```

**Storage is also known as volume(persistentVolume)**

**request>pvc>pv>storage**

**Request is known as claim here (persistentvolumeclaim)**

**> centralised storage(cloud,efs,local,etc)**

**>pv depends on pvc**

**>pv contact to storage through interface**

```
C:\Users\user\Desktop\kube_cloud>kubectl get all
NAME          TYPE      CLUSTER-IP  EXTERNAL-IP  PORT(S)  AGE
service/kubernetes  ClusterIP  10.96.0.1   <none>       443/TCP  13m
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pvc
No resources found in default namespace.
```

**Two types of pvc:**

**Static and dynamic**

**pvc is per folder**

**pod>pvc>pv>storage**

**for 20gib pvc u req exact amt of pv**

**Pre create pv is req**

**In dynamic world we dnt need the storage**

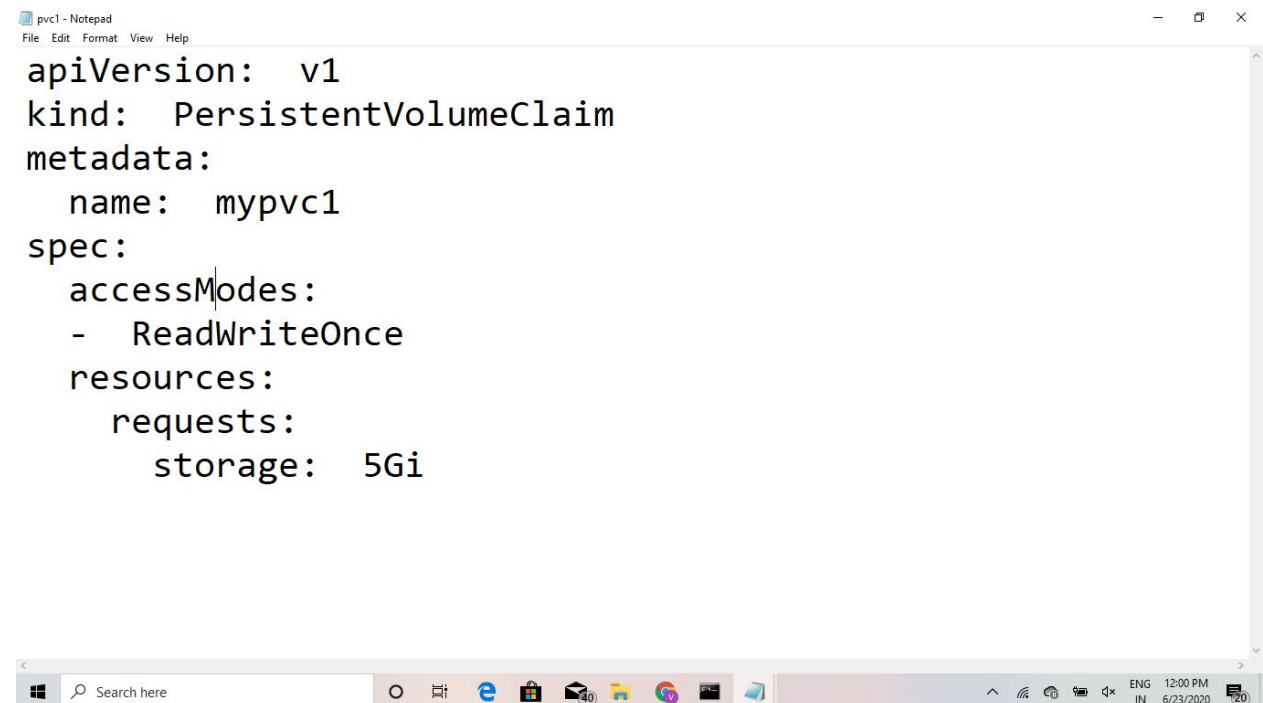
**Readwritable or read-only**

```
C:\Users\user\Desktop\kube_cloud>kubectl get sc
NAME          PROVISIONER          RECLAIMPOLICY  VOLUMEBINDINGMODE
ALLOWVOLUMEEXPANSION  AGE
standard (default)  k8s.io/minikube-hostpath  Delete         Immediate         false
28d
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create -f pod1.yml
pod/mypod1 created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME    READY   STATUS             RESTARTS   AGE
mypod1  0/1     ContainerCreating  0          4s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME    READY   STATUS             RESTARTS   AGE
mypod1  0/1     ContainerCreating  0          6s
```



```
pvc1 - Notepad
File Edit Format View Help

apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: mypvc1
spec:
  accessModes:
    - ReadWriteOnce
  resources:
    requests:
      storage: 5Gi
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create -f pvc1.yml
error: error validating "pvc1.yml": error validating data:
ValidationError(PersistentVolumeClaim.spec): unknown field "accessmodes" in
io.k8s.api.core.v1.PersistentVolumeClaimSpec; if you choose to ignore these errors, turn
validation off with --validate=false
C:\Users\user\Desktop\kube_cloud>kubectl create --validate=false -f pvc1.yml
persistentvolumeclaim/mypvc1 created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pvc
NAME    STATUS   VOLUME                                     CAPACITY   ACCESS MODES
STORAGECLASS  AGE
mypvc1  Bound   pvc-116ceea8-9a6f-43e6-8f33-13d55da85840  5Gi        RWO
standard    20s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pv
```

NAME	CAPACITY	ACCESS MODES	RECLAIM POLICY	STATUS
CLAIM	STORAGECLASS	REASON	AGE	
pvc-116ceea8-9a6f-43e6-8f33-13d55da85840	5Gi	RWO	Delete	Bound
default/mypvc1	standard	26s		

C:\Users\user\Desktop\kube\_cloud>kubectl describe pv

Name: pvc-116ceea8-9a6f-43e6-8f33-13d55da85840  
 Labels: <none>  
 Annotations: hostPathProvisionerIdentity: 8d7f3fe1-b513-11ea-b497-0800270abe14  
 pv.kubernetes.io/provisioned-by: k8s.io/minikube-hostpath  
 Finalizers: [kubernetes.io/pv-protection]  
 StorageClass: standard  
 Status: Bound  
 Claim: default/mypvc1  
 Reclaim Policy: Delete  
 Access Modes: RWO  
 VolumeMode: Filesystem  
 Capacity: 5Gi  
 Node Affinity: <none>  
 Message:  
 Source:  
 Type: HostPath (bare host directory volume)  
 Path: /tmp/hostpath-provisioner/pvc-116ceea8-9a6f-43e6-8f33-13d55da85840  
 HostPathType:  
 Events: <none>

C:\Users\user\Desktop\kube\_cloud>kubectl describe pvc

Name: mypvc1  
 Namespace: default  
 StorageClass: standard  
 Status: Bound  
 Volume: pvc-116ceea8-9a6f-43e6-8f33-13d55da85840  
 Labels: <none>  
 Annotations: control-plane.alpha.kubernetes.io/leader:

```
{"holderIdentity":"8d7f4068-b513-11ea-b497-0800270abe14","leaseDurationSeconds":15,"acquireTime":"2020-06-23T06:30:36Z","renewTime":"2020-...
```

pv.kubernetes.io/bind-completed: yes  
 pv.kubernetes.io/bound-by-controller: yes  
 volume.beta.kubernetes.io/storage-provisioner: k8s.io/minikube-hostpath  
 Finalizers: [kubernetes.io/pvc-protection]  
 Capacity: 5Gi  
 Access Modes: RWO  
 VolumeMode: Filesystem

Mounted By: <none>

Events:

Type	Reason	Age	From	Message
----	-----	----	----	-----
Normal	ExternalProvisioning	87s (x2 over 87s)	persistentvolume-controller	waiting for a volume to be created, either by external provisioner "k8s.io/minikube-hostpath" or manually created by system administrator
Normal	Provisioning	87s	k8s.io/minikube-hostpath	8d7f4068-b513-11ea-b497-0800270abe14 External provisioner is provisioning volume for claim "default/mypvc1"
Normal	ProvisioningSucceeded	87s	k8s.io/minikube-hostpath	8d7f4068-b513-11ea-b497-0800270abe14 Successfully provisioned volume pvc-116ceea8-9a6f-43e6-8f33-13d55da85840

```
*pod1 - Notepad
File Edit Format View Help
apiVersion: v1
kind: Pod

metadata:
  name: mypod1
  labels:
    env: dev
    dc: IN

spec:
  containers:
  - name: "myconf1"
    image: "vimal13/apache-webserver-php"
    mount: /var/www/html
    mount: /etc|
  Volumes:
  - name: web-vol1
    pvc: mypvc1
  - name: web-vol2
    pvc: mypvc2
```

```
pod1 - Notepad
File Edit Format View Help
apiVersion: v1
kind: Pod

metadata:
  name: mypod1
  labels:
    env: dev
    dc: IN

spec:
  containers:
  - name: "myconf1"
    image: "vimal13/apache-webserver-php"
    volumeMounts:
    - name: web-vol
      mountPath: /var/www/html

  volumes:
  - name: web-vol
    persistentVolumeClaim:
      claimName: mypvc1
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create --validate=false -f pod1.yml
pod/mypod1 created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME    READY STATUS  RESTARTS  AGE
mypod1  1/1   Running  0         29s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods/mypod1
```

NAME	READY	STATUS	RESTARTS	AGE
mypod1	1/1	Running	0	41s

```
C:\Users\user\Desktop\kube_cloud>kubectl describe pods/mypod1
```

Name: mypod1

Namespace: default

Priority: 0

Node: minikube/192.168.99.100

Start Time: Tue, 23 Jun 2020 12:15:33 +0530

Labels: dc=IN

env=dev

Annotations: <none>

Status: Running

IP: 172.17.0.2

IPs:

IP: 172.17.0.2

Containers:

myconf1:

Container ID:

docker://d66e17414ce4d43e9b8389c5c7d205b6742c59db29eca2640c49fe8b2fe46364

Image: vimal13/apache-webserver-php

Image ID:

docker-pullable://vimal13/apache-webserver-php@sha256:faed0a5afaf9f04b6915d73f7247f6f5a71db9274ca44118d38f4601c0080a91

Port: <none>

Host Port: <none>

State: Running

Started: Tue, 23 Jun 2020 12:15:39 +0530

Ready: True

Restart Count: 0

Environment: <none>

Mounts:

/var/run/secrets/kubernetes.io/serviceaccount from default-token-8llwm (ro)

/var/www/html from web-vol (rw)

Conditions:

Type	Status
------	--------

Initialized	True
-------------	------

Ready	True
-------	------

ContainersReady	True
-----------------	------

PodScheduled	True
--------------	------

Volumes:

web-vol:

Type: PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)

ClaimName: mypvc1

ReadOnly: false

default-token-8llwm:

Type: Secret (a volume populated by a Secret)

SecretName: default-token-8llwm

Optional: false

QoS Class: BestEffort

Node-Selectors: <none>

Tolerations: node.kubernetes.io/not-ready:NoExecute for 300s

node.kubernetes.io/unreachable:NoExecute for 300s

Events:

Type	Reason	Age	From	Message
Normal	Scheduled	51s	default-scheduler	Successfully assigned default/mypod1 to minikube
Normal	Pulling	50s	kubelet, minikube	Pulling image "vimal13/apache-webserver-php"
Normal	Pulled	45s	kubelet, minikube	Successfully pulled image "vimal13/apache-webserver-php"
Normal	Created	45s	kubelet, minikube	Created container myconf1
Normal	Started	44s	kubelet, minikube	Started container myconf1

```
C:\Users\user\Desktop\kube_cloud>kubectl exec -it mypod1 -- bash
```

```
[root@mypod1 /]# cd /var/www/html
```

```
[root@mypod1 html]# ls
```

```
[root@mypod1 html]# ls
```

```
[root@mypod1 html]# cat > vishesh.html
```

```
hii vishesh here
```

```
[root@mypod1 html]# ls
```

```
vishesh.html
```

```
[root@mypod1 html]# exit
```

```
exit
```

```
C:\Users\user\Desktop\kube_cloud>kubectl delete pods --all
```

```
pod "mypod1" deleted
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
```

```
No resources found in default namespace.
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create --validate=false -f pod1.yml
```

```
pod/mypod1 created
```



```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME    READY   STATUS             RESTARTS   AGE
mypod1  0/1     ContainerCreating  0          2s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl exec -it mypod1 -- bash
[root@mypod1 /]# ls
anaconda-post.log boot etc lib lost+found mnt proc run srv tmp var
bin                dev home lib64 media  opt root sbin sys usr
[root@mypod1 /]# cd /var/www/html
[root@mypod1 html]# ls
vishesh.html
```



```
*rs2 - Notepad
File Edit Format View Help
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  name: rsweb1
spec:
  replicas: 1
  selector:
    matchLabels:
      env: dev
    matchExpressions:
      - { key: env, operator: In, values: [ dev ] }
  template:
    metadata:
      name: mypod1
      labels:
        env: dev
    spec:
      containers:
        - name: "mycon"
          image: vimal13/apache-webserver-php
          volumeMounts:
            - name: web-vol
              mountPath: /var/www/html
      volumes:
        - name: web-vol
          persistentVolumeClaim:
            claimName: mypvc1
```

```
C:\Users\user\Desktop\kube_cloud>kubectl delete all --all
pod "mypod1" deleted
service "kubernetes" deleted
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create -f rs2.yml
replicaset.apps/rsweb1 created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME            READY   STATUS             RESTARTS   AGE
rsweb1-xpk7d    0/1     ContainerCreating  0          6s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl describe pods/rsweb1-xpk7d
Name:          rsweb1-xpk7d
Namespace:     default
```

Priority: 0  
Node: minikube/192.168.99.100  
Start Time: Tue, 23 Jun 2020 12:21:49 +0530  
Labels: env=dev  
Annotations: <none>  
Status: Running  
IP: 172.17.0.2  
IPs:  
IP: 172.17.0.2  
Controlled By: ReplicaSet/rsweb1  
Containers:  
mycon:  
Container ID:  
docker://ed796d238e4a6d3f54480e9833f3a6d7c77e5b766dc4cebb3e9f2e18d174e9e2  
Image: vimal13/apache-webserver-php  
Image ID:  
docker-pullable://vimal13/apache-webserver-php@sha256:faed0a5afaf9f04b6915d73f7247f6f5a71db9274ca44118d38f4601c0080a91  
Port: <none>  
Host Port: <none>  
State: Running  
Started: Tue, 23 Jun 2020 12:21:55 +0530  
Ready: True  
Restart Count: 0  
Environment: <none>  
Mounts:  
/var/run/secrets/kubernetes.io/serviceaccount from default-token-8llwm (ro)  
/var/www/html from web-vol (rw)  
Conditions:  
Type Status  
Initialized True  
Ready True  
ContainersReady True  
PodScheduled True  
Volumes:  
web-vol:  
Type: PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)  
ClaimName: mypvc1  
ReadOnly: false  
default-token-8llwm:  
Type: Secret (a volume populated by a Secret)  
SecretName: default-token-8llwm

Optional: false  
QoS Class: BestEffort  
Node-Selectors: <none>  
Tolerations: node.kubernetes.io/not-ready:NoExecute for 300s  
node.kubernetes.io/unreachable:NoExecute for 300s

Events:

Type	Reason	Age	From	Message
Normal	Scheduled	32s	default-scheduler	Successfully assigned default/rsweb1-xpk7d to minikube
Normal	Pulling	31s	kubelet, minikube	Pulling image "vimal13/apache-webserver-php"
Normal	Pulled	26s	kubelet, minikube	Successfully pulled image "vimal13/apache-webserver-php"
Normal	Created	26s	kubelet, minikube	Created container mycon
Normal	Started	26s	kubelet, minikube	Started container mycon

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME          READY STATUS RESTARTS AGE
rsweb1-xpk7d  1/1   Running 0        97s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl exec -it rsweb1-xpk7d -- bash
[root@rsweb1-xpk7d /]# ls
anaconda-post.log boot etc lib lost+found mnt proc run srv tmp var
bin dev home lib64 media opt root sbin sys usr
[root@rsweb1-xpk7d /]# cd /var/www/html
[root@rsweb1-xpk7d html]# ls
vishesh.html
[root@rsweb1-xpk7d html]# cat vishesh.html
hii vishesh here
[root@rsweb1-xpk7d html]# cat > db.html
final dem0!!
[root@rsweb1-xpk7d html]# exitt
bash: exitt: command not found
[root@rsweb1-xpk7d html]# exit
exit
command terminated with exit code 127
```

```
C:\Users\user\Desktop\kube_cloud>kubectl expose pod rsweb1-xpk7d --type=NodePort --port 80
service/rsweb1-xpk7d exposed
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get all
NAME          READY STATUS RESTARTS AGE
pod/rsweb1-xpk7d 1/1   Running 0        3m17s
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/kubernetes	ClusterIP	10.96.0.1	<none>	443/TCP	3m28s
service/rsweb1-xpk7d	NodePort	10.108.165.77	<none>	80:30566/TCP	4s

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/rsweb1	1	1	1	3m17s

```
C:\Users\user\Desktop\kube_cloud>kubectl delete pods/rsweb1-xpk7d
pod "rsweb1-xpk7d" deleted
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME          READY STATUS  RESTARTS  AGE
rsweb1-v6gz9  1/1   Running  0         20s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get all
NAME          READY STATUS  RESTARTS  AGE
pod/rsweb1-v6gz9  1/1   Running  0         27s
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/kubernetes	ClusterIP	10.96.0.1	<none>	443/TCP	4m10s
service/rsweb1-xpk7d	NodePort	10.108.165.77	<none>	80:30566/TCP	46s

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/rsweb1	1	1	1	3m59s

```
C:\Users\user\Desktop\kube_cloud>kubectl exec -it rsweb1-v6gz9 -- bash
[root@rsweb1-v6gz9 /]# ls
anaconda-post.log boot etc lib lost+found mnt proc run srv tmp var
bin          dev home lib64 media  opt root sbin sys usr
[root@rsweb1-v6gz9 /]# cd /var/www/html
[root@rsweb1-v6gz9 html]# ls
db.html vishesh.html
[root@rsweb1-v6gz9 html]# cat db.html
final dem0!!
[root@rsweb1-v6gz9 html]#
```

```
mysql1 - Notepad
File Edit Format View Help
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  name: mysqlrs1

spec:
  replicas: 1
  selector:
    matchLabels:
      env: dev
  template:
    metadata:
      name: mysqlpod1
      labels:
        env: dev
    spec:
      containers:
        - name: "mysqlcon1"
          image: "mysql:5.6"
          env:
            - name: MYSQL_ROOT_PASSWORD
              value: redhat
            - name: MYSQL_DATABASES
              value: mylb
            - name: MYSQL_USER
              value: vishesh
            - name: MYSQL_PASSWORD
              value: redhat
          volumeMounts:
            - name: web-vol1
              mountPath: /var/lib/mysql
      volumes:
        - name: web-vol1
          persistentVolumeClaim:
            claimName: mysqlpvc1
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create -f mysql1.yml
replicaset.apps/mysqlrs1 created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
mysqlrs1-bvcxj	0/1	Pending	0	4s
rsweb1-v6gz9	1/1	Running	0	12m

```
pvc2 - Notepad
File Edit Format View Help
apiVersion: v1
kind: PersistentVolumeClaim
metadata:
  name: mysqlpvc1
spec:
  accessModes:
  - ReadWriteOnce
  resources:
    requests:
      storage: 5Gi
```

C:\Users\user\Desktop\kube\_cloud>kubectl describe pods mysqlrs1-bvcxj

Name: mysqlrs1-bvcxj  
Namespace: default  
Priority: 0  
Node: <none>  
Labels: env=dev  
Annotations: <none>  
Status: Pending  
IP:  
IPs: <none>  
Controlled By: ReplicaSet/mysqlrs1  
Containers:  
mysqlcon1:  
Image: mysql:5.6  
Port: <none>  
Host Port: <none>  
Environment:  
MYSQL\_ROOT\_PASSWORD: redhat  
MYSQL\_DATABASES: mylb  
MYSQL\_USER: vishesh  
MYSQL\_PASSWORD: redhat  
Mounts:  
/var/lib/mysql from web-vol1 (rw)  
/var/run/secrets/kubernetes.io/serviceaccount from default-token-8llwm (ro)  
Conditions:

```

Type      Status
PodScheduled False
Volumes:
web-vol1:
  Type:      PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same
namespace)
  ClaimName: mysqlpvc1
  ReadOnly:  false
default-token-8llwm:
  Type:      Secret (a volume populated by a Secret)
  SecretName: default-token-8llwm
  Optional:  false
QoS Class:   BestEffort
Node-Selectors: <none>
Tolerations:  node.kubernetes.io/not-ready:NoExecute for 300s
               node.kubernetes.io/unreachable:NoExecute for 300s
Events:
Type      Reason      Age      From      Message
----      -
Warning   FailedScheduling  58s (x2 over 58s)  default-scheduler persistentvolumeclaim
"mysqlpvc1" not found

```

```

C:\Users\user\Desktop\kube_cloud>kubectl create -f pvc2.yml
persistentvolumeclaim/mysqlpvc1 created

```

```

C:\Users\user\Desktop\kube_cloud>kubectl describe pods mysqlrs1-bvcxj
Name:      mysqlrs1-bvcxj
Namespace: default
Priority:   0
Node:      <none>
Labels:    env=dev
Annotations: <none>
Status:    Pending
IP:
IPs:      <none>
Controlled By: ReplicaSet/mysqlrs1
Containers:
mysqlcon1:
  Image:    mysql:5.6
  Port:     <none>
  Host Port: <none>
  Environment:
    MYSQL_ROOT_PASSWORD: redhat

```

MYSQL\_DATABASES: mylb  
MYSQL\_USER: vishesh  
MYSQL\_PASSWORD: redhat

Mounts:

/var/lib/mysql from web-vol1 (rw)  
/var/run/secrets/kubernetes.io/serviceaccount from default-token-8llwm (ro)

Conditions:

Type Status  
PodScheduled False

Volumes:

web-vol1:  
Type: PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)

ClaimName: mysqlpvc1

ReadOnly: false

default-token-8llwm:

Type: Secret (a volume populated by a Secret)

SecretName: default-token-8llwm

Optional: false

QoS Class: BestEffort

Node-Selectors: <none>

Tolerations: node.kubernetes.io/not-ready:NoExecute for 300s  
node.kubernetes.io/unreachable:NoExecute for 300s

Events:

Type	Reason	Age	From	Message
------	--------	-----	------	---------

Warning	FailedScheduling	60s (x3 over 2m9s)	default-scheduler	persistentvolumeclaim "mysqlpvc1" not found
---------	------------------	--------------------	-------------------	---

Warning	FailedScheduling	2s	default-scheduler	running "VolumeBinding" filter plugin for pod "mysqlrs1-bvcxj": error getting PVC "default/mysqlpvc1": could not find v1.PersistentVolumeClaim "default/mysqlpvc1"
---------	------------------	----	-------------------	--

Warning	FailedScheduling	2s (x2 over 2s)	default-scheduler	running "VolumeBinding" filter plugin for pod "mysqlrs1-bvcxj": pod has unbound immediate PersistentVolumeClaims
---------	------------------	-----------------	-------------------	--

C:\Users\user\Desktop\kube\_cloud>kubectl describe pods mysqlrs1-bvcxj

Name: mysqlrs1-bvcxj

Namespace: default

Priority: 0

Node: minikube/192.168.99.100

Start Time: Tue, 23 Jun 2020 12:39:54 +0530

Labels: env=dev

Annotations: <none>

Status: Running



IP: 172.17.0.7  
IPs:  
IP: 172.17.0.7  
Controlled By: ReplicaSet/mysqlrs1  
Containers:  
mysqlcon1:  
Container ID:  
docker://2ddb5088383d2a500f5e1321a8df18bb8efe0a37ec2045947f14e3bba03af4e2  
Image: mysql:5.6  
Image ID:  
docker-pullable://mysql@sha256:2bf1a0a05a6ad437dcac6689e48a9c33774ac92c6213fce2c4196343210592f3  
Port: <none>  
Host Port: <none>  
State: Running  
Started: Tue, 23 Jun 2020 12:39:56 +0530  
Ready: True  
Restart Count: 0  
Environment:  
MYSQL\_ROOT\_PASSWORD: redhat  
MYSQL\_DATABASES: mylb  
MYSQL\_USER: vishesh  
MYSQL\_PASSWORD: redhat  
Mounts:  
/var/lib/mysql from web-vol1 (rw)  
/var/run/secrets/kubernetes.io/serviceaccount from default-token-8llwm (ro)  
Conditions:  
Type Status  
Initialized True  
Ready True  
ContainersReady True  
PodScheduled True  
Volumes:  
web-vol1:  
Type: PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)  
ClaimName: mysqlpvc1  
ReadOnly: false  
default-token-8llwm:  
Type: Secret (a volume populated by a Secret)  
SecretName: default-token-8llwm  
Optional: false  
QoS Class: BestEffort

Node-Selectors: <none>

Tolerations: node.kubernetes.io/not-ready:NoExecute for 300s  
node.kubernetes.io/unreachable:NoExecute for 300s

Events:

Type	Reason	Age	From	Message
Warning	FailedScheduling	89s (x3 over 2m38s)	default-scheduler	persistentvolumeclaim "mysqlpvc1" not found
Warning	FailedScheduling	31s	default-scheduler	running "VolumeBinding" filter plugin for pod "mysqlrs1-bvcxj": error getting PVC "default/mysqlpvc1": could not find v1.PersistentVolumeClaim "default/mysqlpvc1"
Warning	FailedScheduling	31s (x2 over 31s)	default-scheduler	running "VolumeBinding" filter plugin for pod "mysqlrs1-bvcxj": pod has unbound immediate PersistentVolumeClaims
Normal	Scheduled	21s	default-scheduler	Successfully assigned default/mysqlrs1-bvcxj to minikube
Normal	Pulled	20s	kubelet, minikube	Container image "mysql:5.6" already present on machine
Normal	Created	20s	kubelet, minikube	Created container mysqlcon1
Normal	Started	19s	kubelet, minikube	Started container mysqlcon1

C:\Users\user\Desktop\kube\_cloud>kubectl get rs

NAME	DESIRED	CURRENT	READY	AGE
mysqlrs1	1	1	3m50s	
rsweb1	1	1	19m	

C:\Users\user\Desktop\kube\_cloud>kubectl delete rs mysqlrs1  
replicaset.apps "mysqlrs1" deleted

C:\Users\user\Desktop\kube\_cloud>kubectl create -f mysql1.yml  
replicaset.apps/mysqlrs1 created

C:\Users\user\Desktop\kube\_cloud>kubectl get pods

NAME	READY	STATUS	RESTARTS	AGE
mysqlrs1-hd9kb	1/1	Running	0	3m32s

C:\Users\user\Desktop\kube\_cloud>kubectl get pods

NAME	READY	STATUS	RESTARTS	AGE
mysqlrs1-hd9kb	1/1	Running	0	11m

C:\Users\user\Desktop\kube\_cloud>kubectl exec -it mysqlrs1-hd9kb -- bash  
root@mysqlrs1-hd9kb:/# mysql -u vishesh -predhat

Warning: Using a password on the command line interface can be insecure.

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 3

Server version: 5.6.48 MySQL Community Server (GPL)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
mysql> show databases;
```

```
+-----+  
| Database |  
+-----+  
| information_schema |  
+-----+  
1 row in set (0.00 sec)
```

```
mysql> create table students (id int(5),name varchar(255));
```

```
ERROR 1046 (3D000): No database selected
```

```
mysql> use information_schema
```

```
Reading table information for completion of table and column names
```

```
You can turn off this feature to get a quicker startup with -A
```

```
Database changed
```

```
mysql> create table students (id int(5),name varchar(255));
```

```
ERROR 1044 (42000): Access denied for user 'vishesh'@'%' to database 'information_schema'
```

```
mysql> use information_schema;
```

```
Database changed
```

```
mysql> create table students (id int(5),name varchar(255));
```

```
ERROR 1044 (42000): Access denied for user 'vishesh'@'%' to database 'information_schema'
```

```
mysql> exit
```

```
Bye
```

```
root@mysqlrs1-hd9kb:/# mysql -u root -predhat
```

```
Warning: Using a password on the command line interface can be insecure.
```

```
Welcome to the MySQL monitor.  Commands end with ; or \g.
```

```
Your MySQL connection id is 4
```

```
Server version: 5.6.48 MySQL Community Server (GPL)
```

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
mysql> show databases;
```

```
+-----+
| Database |
+-----+
| information_schema |
| mysql |
| performance_schema |
+-----+
```

3 rows in set (0.01 sec)

```
mysql> use mysql;
```

Reading table information for completion of table and column names

You can turn off this feature to get a quicker startup with -A

Database changed

```
mysql> create table students (id int(5),name varchar(255));
```

Query OK, 0 rows affected (0.05 sec)

```
mysql> create database mylb;
```

Query OK, 1 row affected (0.01 sec)

```
mysql> show databases;
```

```
+-----+
| Database |
+-----+
| information_schema |
| mylb |
| mysql |
| performance_schema |
+-----+
```

4 rows in set (0.00 sec)

```
mysql> insert into students (id,name) values (1,'vishesh');
```

Query OK, 1 row affected (0.03 sec)

```
mysql> insert into students (id,name) values (2,'eric');
```

Query OK, 1 row affected (0.00 sec)

```
mysql> select * from students;
```

```
+-----+-----+
| id | name |
+-----+-----+
```

```
| 1 | vishesh |
```

```
| 2 | eric   |
```

```
+-----+-----+
```

2 rows in set (0.02 sec)

```
C:\Users\user\Desktop\kube_cloud>kubectl exec -it mysqlrs1-295qd -- bash
```

```
root@mysqlrs1-295qd:/# mysql -u root -predhat
```

Warning: Using a password on the command line interface can be insecure.

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 2

Server version: 5.6.48 MySQL Community Server (GPL)

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
mysql> select * from mysql.students;
```

```
+-----+-----+
```

```
| id | name |
```

```
+-----+-----+
```

```
| 1 | vishesh |
```

```
| 2 | eric   |
```

```
+-----+-----+
```

2 rows in set (0.01 sec)

```
wp2 - Notepad
File Edit Format View Help
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  name: wprs1

spec:
  replicas: 1
  selector:
    matchLabels:
      env: dev
      app: wp
  template:
    metadata:
      name: wppod1
      labels:
        env: dev
        app: wp
    spec:
      containers:
      - name: "wpcon1"
        image: "wordpress:4.8-apache"
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create -f wp2.yml
replicaset.apps/wprs1 created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME          READY  STATUS      RESTARTS  AGE
mysqlrs1-295qd 1/1    Running      0          6m21s
wprs1-4gkkw    0/1    ContainerCreating 0          1s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get rs
NAME    DESIRED  CURRENT  READY  AGE
mysqlrs1 1        1        1      26m
wprs1    1        1        1      8s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME          READY  STATUS      RESTARTS  AGE
mysqlrs1-295qd 1/1    Running      0          6m30s
wprs1-4gkkw    1/1    Running      0          10s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl expose rs wprs1 --type=NodePort --port 80
service/wprs1 exposed
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get all
NAME                READY  STATUS      RESTARTS  AGE
pod/mysqlrs1-295qd  1/1    Running      0          6m50s
pod/wprs1-4gkkw     1/1    Running      0          30s
```

My Drive - Google | 22nd June - Google | kube\_cloud - Google | YAMLint - The Y... | 21stMay2020 - Google | Untitled document | WordPress - Setup | + -

Not secure | 192.168.99.100:30552/wp-admin/setup-config.php?step=1

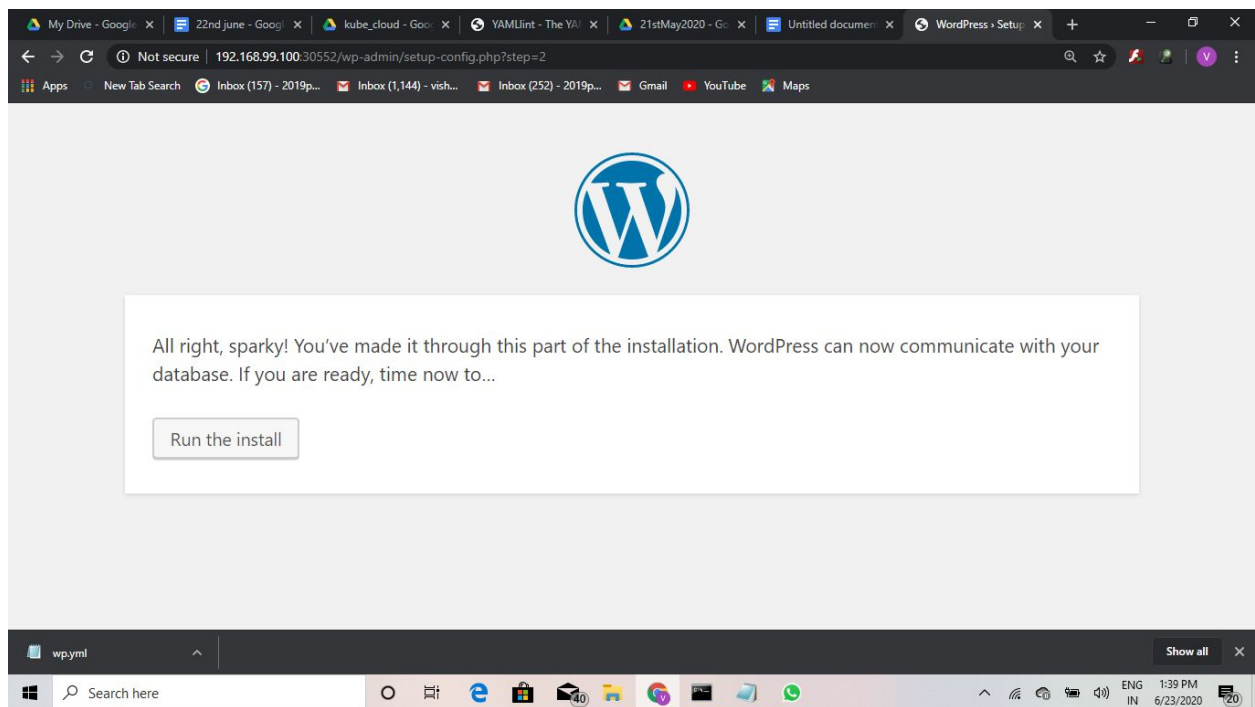
Apps | New Tab Search | Inbox (157) - 2019p... | Inbox (1,144) - vish... | Inbox (252) - 2019p... | Gmail | YouTube | Maps

Below you should enter your database connection details. If you're not sure about these, contact your host.

<b>Database Name</b>	<input type="text" value="mysql"/>	The name of the database you want to use with WordPress.
<b>Username</b>	<input type="text" value="root"/>	Your database username.
<b>Password</b>	<input type="text" value="redhat"/>	Your database password.
<b>Database Host</b>	<input type="text" value="172.17.0.6"/>	You should be able to get this info from your web host, if <code>localhost</code> doesn't work.
<b>Table Prefix</b>	<input type="text" value="wp_"/>	If you want to run multiple WordPress installations in a single database, change this.

wp.yml | Show all

Search here | 1:39 PM 6/23/2020



My Drive - Google X 22nd June - Google X kube\_cloud - Google X YAMLint - The YAMLint X 21stMay2020 - Google X Untitled document X WordPress - Install X

Not secure | 192.168.99.100:30552/wp-admin/install.php?language=en\_US

Please provide the following information. Don't worry, you can always change these settings later.

**Site Title**

**Username**   
Usernames can have only alphanumeric characters, spaces, underscores, hyphens, periods, and the @ symbol.

**Password**    
Strong

**Important:** You will need this password to log in. Please store it in a secure location.

**Your Email**   
Double-check your email address before continuing.


**Search Engine** ☐ Discourage search engines from indexing this site

wp.yml Show all

Search here

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Not secure | 192.168.99.100:30552/wp-login.php



Username or Email Address

Password

☐ Remember Me

Waiting for 192.168.99.100...

wp.yml Show all

Search here



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Not secure | 192.168.99.100:30552/wp-admin/

Apps New Tab Search Inbox (157) - 2019p... Inbox (1,144) - vish... Inbox (252) - 2019p... Gmail YouTube Maps

WordPress hi vishesh 6 0 + New Howdy, vishesh

Screen Options Help

WordPress 5.4.2 is available! [Please update now.](#)

## Dashboard

Welcome to WordPress!  
We've assembled some links to get you started:

**Get Started**

[Customize Your Site](#)

or, change your theme completely

**Next Steps**

- [Write your first blog post](#)
- [Add an About page](#)
- [View your site](#)

**More Actions**

- [Manage widgets or menus](#)
- [Turn comments on or off](#)
- [Learn more about getting started](#)

wp.yml Show all

Search here

My Drive - Google X 22nd june - Google X kube\_cloud - Google X YAMLint - The Y X 21stMay2020 - Google X Untitled document X Add New Post - hi vishesh X

Not secure | 192.168.99.100:30552/wp-admin/post-new.php

Apps New Tab Search Inbox (157) - 2019p... Inbox (1,144) - vish... Inbox (252) - 2019p... Gmail YouTube Maps

WordPress hi vishesh 6 0 + New Howdy, vishesh

Screen Options Help

WordPress 5.4.2 is available! [Please update now.](#)

## Add New Post

[Add Media](#)

Paragraph **B** *I*

Visual Text

**Publish**

[Save Draft](#) [Preview](#)

Status: **Draft** [Edit](#)

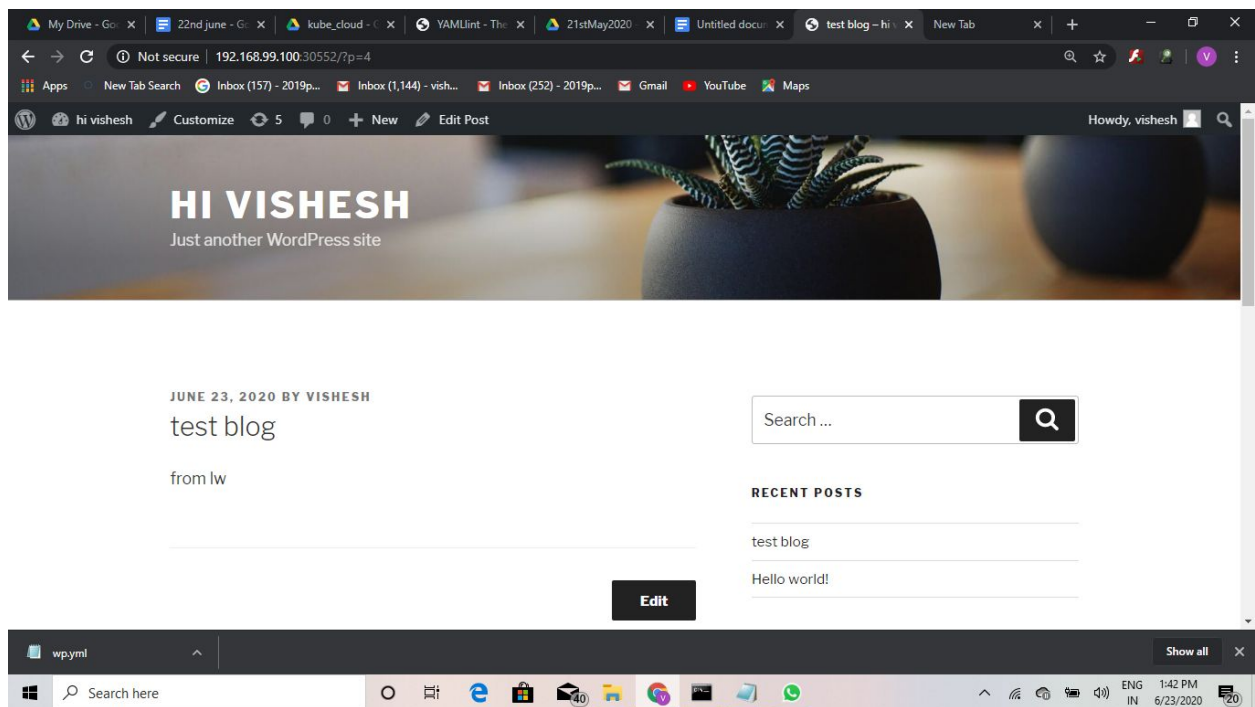
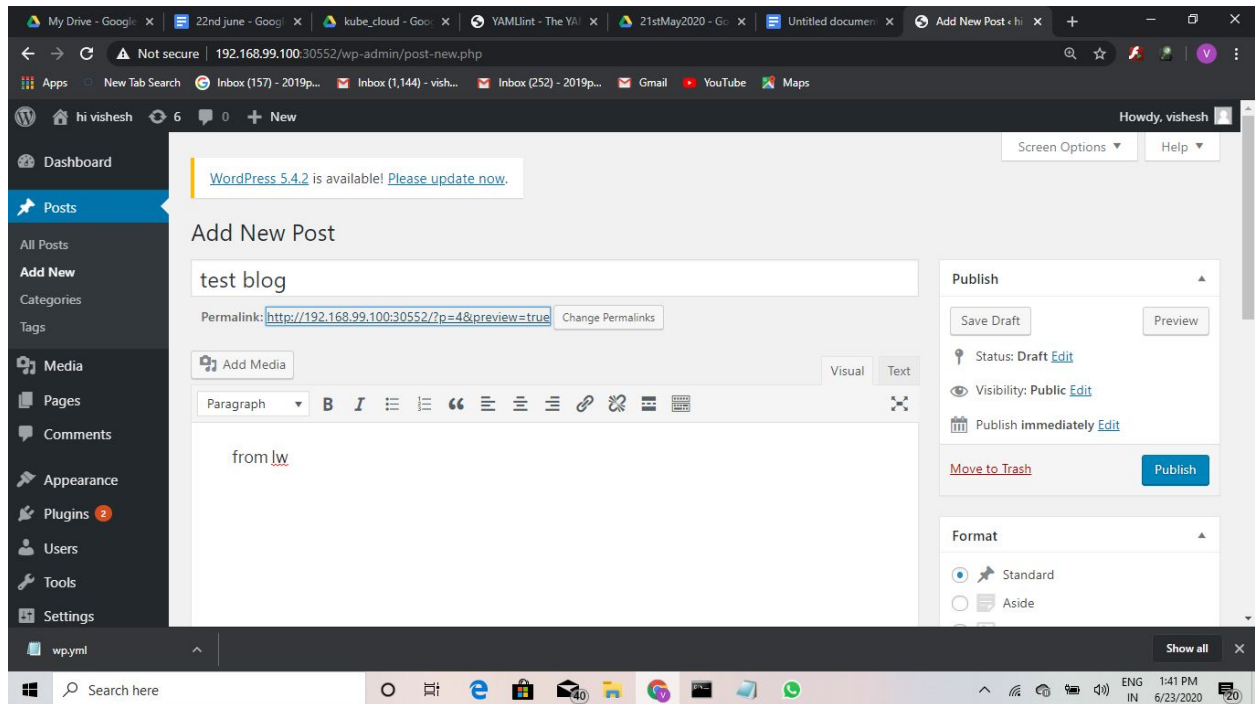
Visibility: **Public** [Edit](#)

Publish **immediately** [Edit](#)

[Publish](#)

wp.yml Show all

Search here



NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/kubernetes	ClusterIP	10.96.0.1	<none>	443/TCP	26m
service/wprs1	NodePort	10.108.248.196	<none>	80:30552/TCP	5s

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/mysqlrs1	1	1	1	26m
replicaset.apps/wprs1	1	1	1	30s

```
C:\Users\user\Desktop\kube_cloud>kubectl get all
NAME                READY STATUS RESTARTS AGE
pod/mysqlrs1-295qd  1/1   Running  0      6m50s
pod/wprs1-4gkkw     1/1   Running  0      30s
```

```
NAME                TYPE      CLUSTER-IP   EXTERNAL-IP  PORT(S)    AGE
service/kubernetes  ClusterIP  10.96.0.1    <none>       443/TCP    26m
service/wprs1       NodePort   10.108.248.196 <none>      80:30552/TCP 5s
```

```
NAME                DESIRED CURRENT READY AGE
replicaset.apps/mysqlrs1  1      1      1    26m
replicaset.apps/wprs1     1      1      1    30s
```

```
C:\Users\user\Desktop\kube_cloud>kubectl describe pod/mysqlrs1-295qd
Name:      mysqlrs1-295qd
Namespace: default
Priority:   0
Node:      minikube/192.168.99.100
Start Time: Tue, 23 Jun 2020 13:29:37 +0530
Labels:    env=dev
Annotations: <none>
Status:    Running
IP:        172.17.0.6
IPs:
  IP:      172.17.0.6
Controlled By: ReplicaSet/mysqlrs1
Containers:
  mysqlcon1:
    Container ID:
      docker://430544c0a1a98edd762f1a947c78fd2a2122506bdfd8f26812c0404ef96415c5
    Image:      mysql:5.6
    Image ID:
      docker-pullable://mysql@sha256:2bf1a0a05a6ad437dcac6689e48a9c33774ac92c6213fce2c4196343210592f3
    Port:      <none>
    Host Port:  <none>
    State:      Running
      Started:   Tue, 23 Jun 2020 13:29:38 +0530
    Ready:      True
    Restart Count: 0
    Environment:
      MYSQL_ROOT_PASSWORD: redhat
      MYSQL_DATABASE:      mylb
```

MYSQL\_USER: vishesh  
MYSQL\_PASSWORD: redhat

Mounts:

/var/lib/mysql from web-vol1 (rw)

/var/run/secrets/kubernetes.io/serviceaccount from default-token-8llwm (ro)

Conditions:

Type	Status
Initialized	True
Ready	True
ContainersReady	True
PodScheduled	True

Volumes:

web-vol1:

Type: PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)

ClaimName: mysqlpvc1

ReadOnly: false

default-token-8llwm:

Type: Secret (a volume populated by a Secret)

SecretName: default-token-8llwm

Optional: false

QoS Class: BestEffort

Node-Selectors: <none>

Tolerations: node.kubernetes.io/not-ready:NoExecute for 300s  
node.kubernetes.io/unreachable:NoExecute for 300s

Events:

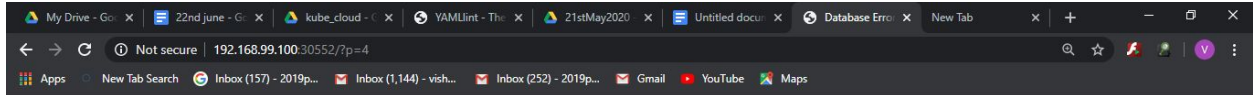
Type	Reason	Age	From	Message
------	--------	-----	------	---------

Normal	Scheduled	9m10s	default-scheduler	Successfully assigned default/mysqlrs1-295qd to minikube
--------	-----------	-------	-------------------	--

Normal	Pulled	9m9s	kubelet, minikube	Container image "mysql:5.6" already present on machine
--------	--------	------	-------------------	--

Normal	Created	9m9s	kubelet, minikube	Created container mysqlcon1
--------	---------	------	-------------------	-----------------------------

Normal	Started	9m9s	kubelet, minikube	Started container mysqlcon1
--------	---------	------	-------------------	-----------------------------



## Error establishing a database connection



```
C:\Users\user\Desktop\kube_cloud>kubectl get pods
NAME          READY STATUS  RESTARTS  AGE
mysqlrs1-xz5dx 1/1   Running  0         39s
wprs1-4gkkw    1/1   Running  0         11m
```

```
C:\Users\user\Desktop\kube_cloud>kubectl describe pods mysqlrs1-xz5dx
```

Name: mysqlrs1-xz5dx

Namespace: default

Priority: 0

Node: minikube/192.168.99.100

Start Time: Tue, 23 Jun 2020 13:46:59 +0530

Labels: env=dev

Annotations: <none>

Status: Running

IP: 172.17.0.8

IPs:

IP: 172.17.0.8

Controlled By: ReplicaSet/mysqlrs1

Containers:

mysqlcon1:

Container ID:

docker://cf713aed735d16483325b9ff9b6f76f7ca173664910ebed36ac0936b6295c9c4

Image: mysql:5.6

Image ID:

docker-pullable://mysql@sha256:2bf1a0a05a6ad437dcac6689e48a9c33774ac92c6213fce2c4196343210592f3

Port: <none>

Host Port: <none>

State: Running

Started: Tue, 23 Jun 2020 13:47:01 +0530

Ready: True

Restart Count: 0

Environment:

MYSQL\_ROOT\_PASSWORD: redhat

MYSQL\_DATABASE: mylb

MYSQL\_USER: vishesh

MYSQL\_PASSWORD: redhat

Mounts:

/var/lib/mysql from web-vol1 (rw)

/var/run/secrets/kubernetes.io/serviceaccount from default-token-8llwm (ro)

Conditions:

Type	Status
------	--------

Initialized	True
-------------	------

Ready	True
-------	------

ContainersReady	True
-----------------	------

PodScheduled	True
--------------	------

Volumes:

web-vol1:

Type: PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)

ClaimName: mysqlpvc1

ReadOnly: false

default-token-8llwm:

Type: Secret (a volume populated by a Secret)

SecretName: default-token-8llwm

Optional: false

QoS Class: BestEffort

Node-Selectors: <none>

Tolerations: node.kubernetes.io/not-ready:NoExecute for 300s

node.kubernetes.io/unreachable:NoExecute for 300s

Events:

Type	Reason	Age	From	Message
------	--------	-----	------	---------

----	-----	----	-----	-----
------	-------	------	-------	-------

Normal	Scheduled	52s	default-scheduler	Successfully assigned default/mysqlrs1-xz5dx to minikube
--------	-----------	-----	-------------------	--

Normal Pulled 51s kubelet, minikube Container image "mysql:5.6" already present on machine

Normal Created 50s kubelet, minikube Created container mysqlcon1

Normal Started 50s kubelet, minikube Started container mysqlcon1

```

*Untitled - Notepad
File Edit Format View Help
apiVersion: v1
kind: Secret
metadata:
  name: mysecret
data:
  username: dmltYWw=
  vpass: dmltYWxwYXNz
  rpass: cmVkaGF0

```

secret never encrypt the data

We will create with the help of generic method

C:\Users\user\Desktop\kube\_cloud>kubectl create secret generic mysecret

--from-literal=user=\*\*\*\*\* --from-literal=mypass=.....

secret/mysecret created

C:\Users\user\Desktop\kube\_cloud>kubectl get secret

NAME	TYPE	DATA	AGE
default-token-8llwm	kubernetes.io/service-account-token	3	28d
mysecret	Opaque	2	6s

C:\Users\user\Desktop\kube\_cloud>kubectl describe secret/mysecret

Name: mysecret  
Namespace: default  
Labels: <none>  
Annotations: <none>

Type: Opaque

Data

====

mypass: 6 bytes

user: 7 bytes

C:\Users\user\Desktop\kube\_cloud>kubectl get secret/mysecret -o yaml

apiVersion: v1

data:

mypass: cmVkaGF0

user: dmlzaGVzaA==

kind: Secret

metadata:

creationTimestamp: "2020-06-23T08:46:07Z"

managedFields:

- apiVersion: v1

fieldsType: FieldsV1

fieldsV1:

f:data:

.: {}

f:mypass: {}

f:user: {}

f:type: {}

manager: kubectl

operation: Update

time: "2020-06-23T08:46:07Z"

name: mysecret

namespace: default

resourceVersion: "312638"

selfLink: /api/v1/namespaces/default/secrets/mysecret

uid: 1144f15f-e5a8-47b5-906f-bce4c7b6002b

type: Opaque

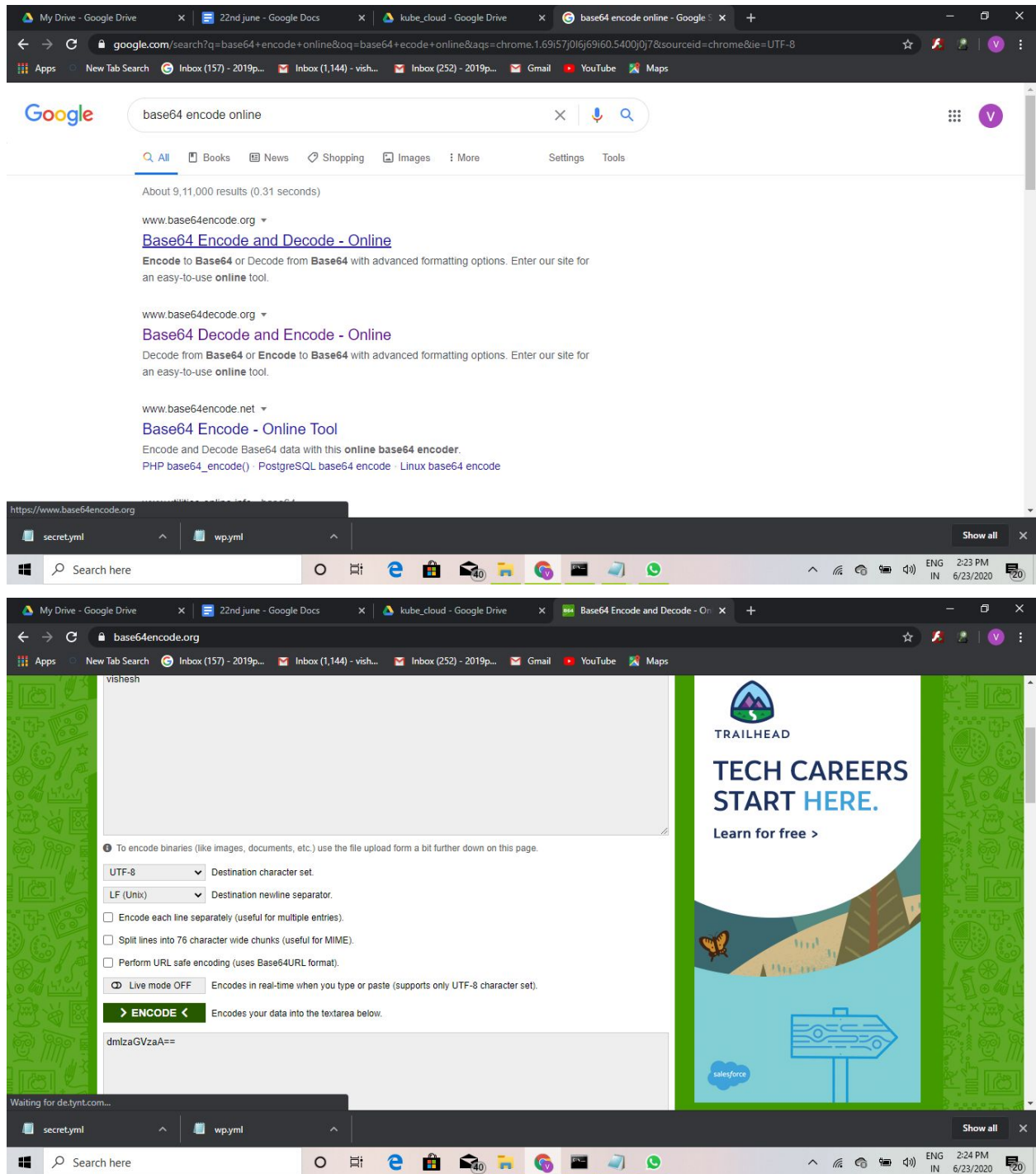
(encodes)



The image shows a Google search for "base64 decode online" and the resulting website interface. The search results show several links to online Base64 encoding and decoding tools. The first result is from "www.base64decode.org" and is titled "Base64 Decode and Encode - Online". The description says: "Decode from Base64 or Encode to Base64 with advanced formatting options. Enter our site for an easy-to-use online tool." The second result is from "www.base64encode.org" and is titled "Base64 Encode and Decode - Online". The description says: "Encode to Base64 or Decode from Base64 with advanced formatting options. Enter our site for an easy-to-use online tool." The third result is from "www.base64decode.net" and is titled "Base64 Decode - Online Tool". The description says: "Decode and Encode Base64 data with this online base64 decoder." The fourth result is from "www.utilities-online.info" and is titled "Base64 encoder/decoder online - Utilities-Online.Info".

The website interface for "Base64 Decode and Encode - Online" is shown. It has a green background with a pattern of icons. The main heading is "Decode from Base64 format". Below it, it says "Simply enter your data then push the decode button." There is a text input field containing "dmlzaGVzaA==". Below the input field, there is a section for "Source character set" with a dropdown menu set to "UTF-8". There are checkboxes for "Decode each line separately (useful for multiple entries)" and "Live mode OFF". A "DECODE" button is present. Below the button, there is a text output field containing "vishesh". A "Bonus tip: Bookmark us!" message is displayed on the right side of the page.

in secret file it support in encode format only



```
C:\Users\user\Desktop\kube_cloud>kubectl create -f secret1.yml
secret/mysqlsecret created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get secret
NAME                TYPE          DATA  AGE
default-token-8llwm  kubernetes.io/service-account-token  3     28d
mysecret             Opaque        2     9m36s
```

mysqlsecret

Opaque

3 4s

```
mysql1 - Notepad
File Edit Format View Help
apiVersion: apps/v1
kind: ReplicaSet
metadata:
  name: mysqlrs1

spec:
  replicas: 1
  selector:
    matchLabels:
      env: dev
  template:
    metadata:
      name: mysqlpod1
      labels:
        env: dev
    spec:
      containers:
        - name: "mysqlcon1"
          image: "mysql:5.6"
          env:
            - name: MYSQL_ROOT_PASSWORD
              valueFrom:
                secretKeyRef:
                  name: mysqlsecret
                  key: rpass
            - name: MYSQL_DATABASE
              value: mylb
            - name: MYSQL_USER
              valueFrom:
                secretKeyRef:
                  name: mysqlsecret
                  key: username
            - name: MYSQL_PASSWORD
              valueFrom:
                secretKeyRef:
                  name: mysqlsecret
                  key: vpass
          volumeMounts:
            - name: web-vol1
```

```
C:\Users\user\Desktop\kube_cloud>kubectl create --validate=false -f mysql1.yml
replicaset.apps/mysqlrs1 created
```

```
C:\Users\user\Desktop\kube_cloud>kubectl get rs
NAME      DESIRED  CURRENT  READY  AGE
mysqlrs1  1        1        1      5s
wprs1     1        1        1      59m

C:\Users\user\Desktop\kube_cloud>kubectl get all
NAME                                READY  STATUS   RESTARTS  AGE
pod/mysqlrs1-w7rqc                 1/1    Running  0         24s
pod/wprs1-4gkkw                    1/1    Running  0         60m
```

NAME	TYPE	CLUSTER-IP	EXTERNAL-IP	PORT(S)	AGE
service/kubernetes	ClusterIP	10.96.0.1	<none>	443/TCP	86m
service/wprs1	NodePort	10.108.248.196	<none>	80:30552/TCP	59m

NAME	DESIRED	CURRENT	READY	AGE
replicaset.apps/mysqlrs1	1	1	1	25s
replicaset.apps/wprs1	1	1	1	60m

```
C:\Users\user\Desktop\kube_cloud>kubectl describe pod/mysqlrs1-w7rqc
Name:      mysqlrs1-w7rqc
Namespace: default
Priority:   0
```

Node: minikube/192.168.99.100  
Start Time: Tue, 23 Jun 2020 14:35:35 +0530  
Labels: env=dev  
Annotations: <none>  
Status: Running  
IP: 172.17.0.6  
IPs:  
IP: 172.17.0.6  
Controlled By: ReplicaSet/mysqlrs1  
Containers:  
mysqlcon1:  
Container ID:  
docker://fa0bf53626c6a65c32f115b2eb6b1f6242e6da558c7ab7ad3d360dc7dc706975  
Image: mysql:5.6  
Image ID:  
docker-pullable://mysql@sha256:2bf1a0a05a6ad437dcac6689e48a9c33774ac92c6213fce2c4196343210592f3  
Port: <none>  
Host Port: <none>  
State: Running  
Started: Tue, 23 Jun 2020 14:35:36 +0530  
Ready: True  
Restart Count: 0  
Environment:  
MYSQL\_ROOT\_PASSWORD: <set to the key 'rpass' in secret 'mysqlsecret'> Optional: false  
MYSQL\_DATABASE: mylb  
MYSQL\_USER: <set to the key 'username' in secret 'mysqlsecret'> Optional: false  
MYSQL\_PASSWORD: <set to the key 'vpass' in secret 'mysqlsecret'> Optional: false  
Mounts:  
/var/lib/mysql from web-vol1 (rw)  
/var/run/secrets/kubernetes.io/serviceaccount from default-token-8llwm (ro)  
Conditions:  
Type Status  
Initialized True  
Ready True  
ContainersReady True  
PodScheduled True  
Volumes:  
web-vol1:  
Type: PersistentVolumeClaim (a reference to a PersistentVolumeClaim in the same namespace)  
ClaimName: mysqlpvc1

ReadOnly: false  
 default-token-8llwm:  
   Type: Secret (a volume populated by a Secret)  
   SecretName: default-token-8llwm  
   Optional: false  
 QoS Class: BestEffort  
 Node-Selectors: <none>  
 Tolerations: node.kubernetes.io/not-ready:NoExecute for 300s  
               node.kubernetes.io/unreachable:NoExecute for 300s  
 Events:  

Type	Reason	Age	From	Message
Normal	Scheduled	36s	default-scheduler	Successfully assigned default/mysqlrs1-w7rqc to minikube
Normal	Pulled	36s	kubelet, minikube	Container image "mysql:5.6" already present on machine
Normal	Created	36s	kubelet, minikube	Created container mysqlcon1
Normal	Started	35s	kubelet, minikube	Started container mysqlcon1



```
sl - Notepad
File Edit Format View Help
provider "kubernetes" {
  config_context_cluster = "minikube"
}

resource "kubernetes_secret" "myexample" {
  metadata {
    name = "my-basic-auth"
  }

  data = {
    username = "admin"
    password = "P4ssw0rd"
  }

  type = "kubernetes.io/basic-auth"
}

resource "kubernetes_pod" "mypod1" {
  metadata {
    name = "podwebname"
  }

  spec {
    container {
      image = "vimal13/apache-webserver-php"
      name = "mywebcon"
    }
  }
}
```

C:\Users\user\Desktop\kube\_cloud>cd C:\Users\user\Desktop\terraform

C:\Users\user\Desktop\terraform>cd secret

C:\Users\user\Desktop\terraform\secret>terraform init

Initializing the backend...

Initializing provider plugins...

- Checking for available provider plugins...
- Downloading plugin for provider "kubernetes" (hashicorp/kubernetes) 1.11.3...

The following providers do not have any version constraints in configuration, so the latest version was installed.

To prevent automatic upgrades to new major versions that may contain breaking changes, it is recommended to add version = "..." constraints to the corresponding provider blocks in configuration, with the constraint strings suggested below.

\* provider.kubernetes: version = "~> 1.11"

Terraform has been successfully initialized!

You may now begin working with Terraform. Try running "terraform plan" to see

any changes that are required for your infrastructure. All Terraform commands should now work.

If you ever set or change modules or backend configuration for Terraform, rerun this command to reinitialize your working directory. If you forget, other commands will detect it and remind you to do so if necessary.

```
C:\Users\user\Desktop\terraform\secret>terraform apply
```

An execution plan has been generated and is shown below.

Resource actions are indicated with the following symbols:

- + create

Terraform will perform the following actions:

```
# kubernetes_pod.mypod1 will be created
+ resource "kubernetes_pod" "mypod1" {
  + id = (known after apply)

  + metadata {
    + generation      = (known after apply)
    + name            = "podwebname"
    + namespace       = "default"
    + resource_version = (known after apply)
    + self_link        = (known after apply)
    + uid              = (known after apply)
  }

  + spec {
    + automount_service_account_token = false
    + dns_policy                      = "ClusterFirst"
    + host_ipc                        = false
    + host_network                    = false
    + host_pid                        = false
    + hostname                        = (known after apply)
    + node_name                       = (known after apply)
    + restart_policy                  = "Always"
    + service_account_name            = (known after apply)
    + share_process_namespace         = false
    + termination_grace_period_seconds = 30

    + container {
      + image = "vimal13/apache-webserver-php"
```



```

+ image_pull_policy      = (known after apply)
+ name                   = "mywebcon"
+ stdin                  = false
+ stdin_once             = false
+ termination_message_path = "/dev/termination-log"
+ tty                    = false

+ resources {
  + limits {
    + cpu    = (known after apply)
    + memory = (known after apply)
  }

  + requests {
    + cpu    = (known after apply)
    + memory = (known after apply)
  }
}

+ volume_mount {
  + mount_path      = (known after apply)
  + mount_propagation = (known after apply)
  + name            = (known after apply)
  + read_only       = (known after apply)
  + sub_path        = (known after apply)
}

+ image_pull_secrets {
  + name = (known after apply)
}

+ volume {
  + name = (known after apply)

  + aws_elastic_block_store {
    + fs_type = (known after apply)
    + partition = (known after apply)
    + read_only = (known after apply)
    + volume_id = (known after apply)
  }

  + azure_disk {

```

```

+ caching_mode = (known after apply)
+ data_disk_uri = (known after apply)
+ disk_name    = (known after apply)
+ fs_type      = (known after apply)
+ read_only    = (known after apply)
}

+ azure_file {
  + read_only = (known after apply)
  + secret_name = (known after apply)
  + share_name = (known after apply)
}

+ ceph_fs {
  + monitors = (known after apply)
  + path      = (known after apply)
  + read_only = (known after apply)
  + secret_file = (known after apply)
  + user       = (known after apply)

  + secret_ref {
    + name = (known after apply)
  }
}

+ cinder {
  + fs_type = (known after apply)
  + read_only = (known after apply)
  + volume_id = (known after apply)
}

+ config_map {
  + default_mode = (known after apply)
  + name         = (known after apply)

  + items {
    + key = (known after apply)
    + mode = (known after apply)
    + path = (known after apply)
  }
}

+ downward_api {

```

```

+ default_mode = (known after apply)

+ items {
  + mode = (known after apply)
  + path = (known after apply)

  + field_ref {
    + api_version = (known after apply)
    + field_path = (known after apply)
  }

  + resource_field_ref {
    + container_name = (known after apply)
    + quantity      = (known after apply)
    + resource       = (known after apply)
  }
}

+ empty_dir {
  + medium = (known after apply)
}

+ fc {
  + fs_type    = (known after apply)
  + lun        = (known after apply)
  + read_only  = (known after apply)
  + target_ww_ns = (known after apply)
}

+ flex_volume {
  + driver  = (known after apply)
  + fs_type = (known after apply)
  + options = (known after apply)
  + read_only = (known after apply)

  + secret_ref {
    + name = (known after apply)
  }
}

+ flocker {
  + dataset_name = (known after apply)
}

```

```
+ dataset_uuid = (known after apply)
}

+ gce_persistent_disk {
  + fs_type = (known after apply)
  + partition = (known after apply)
  + pd_name = (known after apply)
  + read_only = (known after apply)
}

+ git_repo {
  + directory = (known after apply)
  + repository = (known after apply)
  + revision = (known after apply)
}

+ glusterfs {
  + endpoints_name = (known after apply)
  + path = (known after apply)
  + read_only = (known after apply)
}

+ host_path {
  + path = (known after apply)
  + type = (known after apply)
}

+ iscsi {
  + fs_type = (known after apply)
  + iqn = (known after apply)
  + iscsi_interface = (known after apply)
  + lun = (known after apply)
  + read_only = (known after apply)
  + target_portal = (known after apply)
}

+ local {
  + path = (known after apply)
}

+ nfs {
  + path = (known after apply)
  + read_only = (known after apply)
```

```

    + server = (known after apply)
}

+ persistent_volume_claim {
    + claim_name = (known after apply)
    + read_only = (known after apply)
}

+ photon_persistent_disk {
    + fs_type = (known after apply)
    + pd_id = (known after apply)
}

+ quobyte {
    + group = (known after apply)
    + read_only = (known after apply)
    + registry = (known after apply)
    + user = (known after apply)
    + volume = (known after apply)
}

+ rbd {
    + ceph_monitors = (known after apply)
    + fs_type = (known after apply)
    + keyring = (known after apply)
    + rados_user = (known after apply)
    + rbd_image = (known after apply)
    + rbd_pool = (known after apply)
    + read_only = (known after apply)

    + secret_ref {
        + name = (known after apply)
    }
}

+ secret {
    + default_mode = (known after apply)
    + optional = (known after apply)
    + secret_name = (known after apply)

    + items {
        + key = (known after apply)
        + mode = (known after apply)
    }
}

```

```

        + path = (known after apply)
      }
    }

    + vsphere_volume {
      + fs_type    = (known after apply)
      + volume_path = (known after apply)
    }
  }
}

```

# kubernetes\_secret.myexample will be created

```

+ resource "kubernetes_secret" "myexample" {
  + data = (sensitive value)
  + id   = (known after apply)
  + type = "kubernetes.io/basic-auth"

  + metadata {
    + generation      = (known after apply)
    + name            = "my-basic-auth"
    + namespace       = "default"
    + resource_version = (known after apply)
    + self_link       = (known after apply)
    + uid             = (known after apply)
  }
}

```

Plan: 2 to add, 0 to change, 0 to destroy.

Do you want to perform these actions?

Terraform will perform the actions described above.

Only 'yes' will be accepted to approve.

Enter a value: yes

kubernetes\_secret.myexample: Creating...

kubernetes\_secret.myexample: Creation complete after 0s [id=default/my-basic-auth]

kubernetes\_pod.mypod1: Creating...

kubernetes\_pod.mypod1: Still creating... [10s elapsed]

kubernetes\_pod.mypod1: Creation complete after 13s [id=default/podwebname]

Apply complete! Resources: 2 added, 0 changed, 0 destroyed.

```
C:\Users\user\Desktop\terraform\secret>kubectl get secret
```

NAME	TYPE	DATA	AGE
default-token-8llwm	kubernetes.io/service-account-token	3	28d
my-basic-auth	kubernetes.io/basic-auth	2	22s
mysecret	Opaque	2	27m
mysqlsecret	Opaque	3	17m

```
C:\Users\user\Desktop\terraform\secret>kubectl get pods
```

NAME	READY	STATUS	RESTARTS	AGE
podwebname	1/1	Running	0	24s