Summary

- Revision of webserver, PVC & PV
- Configuration files of Apache-webserver are stored in **/etc/httpd/config.d**
- Config files decide the behavior of the server
- In a container, if we want a particular folder to be permanent then PVC resource is used
- Config map resource in Kubernetes is used for making a particular data/folder permanent in the pod
- Practical:- Webserver config files
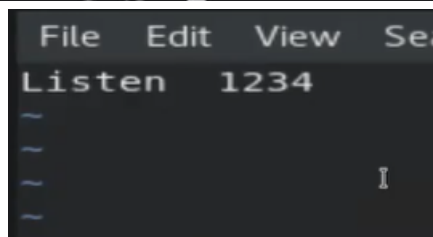   - Starting Apache webserver

```
[root@localhost ~]# rpm  -q httpd
httpd-2.4.37-39.module+el8.4.0+9658+b87b2deb.x86_64
[root@localhost ~]# systemctl start httpd
[root@localhost ~]# cd /var/www/html/
[root@localhost html]# ls
ds.html  linux.html  vimal.html
[root@localhost html]# cd /etc/httpd/conf.d/
[root@localhost conf.d]# ls
autoindex.conf   README  userdir.conf  welcome.conf
```

    - Checking the port no of the Apache webserver

```
[root@localhost conf.d]# netstat  -tnlp |  grep httpd
tcp6      0       0 :::80                   :::*                    LISTEN
3638/httpd
```

    - Creating config file

```
[root@localhost conf.d]# vi lw.conf
[root@localhost conf.d]# pwd
/etc/httpd/conf.d
[root@localhost conf.d]# ls
autoindex.conf  lw.conf  README  userdir.conf  welcome.conf
```

```
 File  Edit  View  Se
Listen   1234
~
~
~                        I
~
```

o Restarting the web server for updating the config file

```
[root@localhost conf.d]# setenforce  0
[root@localhost conf.d]# systemctl restart httpd
[root@localhost conf.d]#
[root@localhost conf.d]#
[root@localhost conf.d]# pwd
/etc/httpd/conf.d
[root@localhost conf.d]# ls
autoindex.conf  lw.conf  README  userdir.conf  welcome.conf
[root@localhost conf.d]# netstat  -tnlp |  grep httpd
tcp6      0        0 :::80                     :::*                    LISTEN
4070/httpd
tcp6      0        0 :::1234 I                 :::*                    LISTEN
4070/httpd
```

o Accessing a webpage from the curl command

```
[root@localhost conf.d]# curl http://192.168.59.106:80/vimal.html
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[root@localhost conf.d]# curl http://192.168.59.106:81/vimal.html
curl: (7) Failed to connect to 192.168.59.106 port 81: Connection refused
[root@localhost conf.d]# curl http://192.168.59.106:82/vimal.html
curl: (7) Failed to connect to 192.168.59.106 port 82: Connection refused
[root@localhost conf.d]#
[root@localhost conf.d]# curl http://192.168.59.106:1234/vimal.html
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[root@localhost conf.d]#
```

- Practical:-Making port permanent for Apache-webserver using config
map
  o Creating config map
    ▪ Text file for config map

```
*myweb - Notepad
File Edit Format View Help
Listen 2222
```

```
C:\Users\Vimal Daga\Documents\Container2021-ws>notepad myweb.txt

C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl create configmap  mywebcm  --from-file  myweb.txt
configmap/mywebcm created

C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl  get cm
NAME             DATA    AGE
kube-root-ca.crt  1      84d
mywebcm           1      7s
```

o Creating pod with config map
    ▪ Manifest file for pod

```
apiVersion: v1
kind: Pod
metadata:
  name: "mypod"
spec:
  containers:
  - name: "myc2"
    image: "vimal13/apache-webserver-php"
    volumeMounts:
    - mountPath: /etc/httpd/conf.d/
      name: mycm

  volumes:
  - configMap:
      name: mywebcm
    name: mycm
```

- Creating pod

```
C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl get pods
NAME                    READY   STATUS    RESTARTS   AGE
mypod                   1/1     Running   0          9s
myweb-5c7c95f7fd-59dqk  1/1     Running   0          21m

C:\Users\Vimal Daga\Documents\Container2021-ws>
```

- We can create a config map from the manifest file also
  - Manifest file for config map

```
apiVersion: v1
kind: ConfigMap
metadata:
  name: mycm2
data:
  vimal.conf:  |
    listen 1224
      x 5
      y 10
```

  - Creating config map

```
C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl create -f configmap_my.yml
configmap/mycm2 created

C:\Users\Vimal Daga\Documents\Container2021-ws>kubectl get cm
NAME              DATA   AGE
kube-root-ca.crt  1      84d
mycm2             1      4s
mywebcm           1      22m
```