Assignment : HTTP Server

Steps:

1. Update Your System

Before installing any packages, it's a good idea to update your system to ensure everything is up-to-date.

    sudo yum update

2.Install Apache (httpd)

Use the yum package manager to install the Apache HTTP server.

    sudo yum update –y

Run mount command :

```
=500,rmode=400,dhetper=duisks2)
[root@localhost ~]# mount /dev/sr0 /mnt
mount: /mnt: WARNING: source write-protected, mounted read-only.
[root@localhost ~]# cd /etc/yum.repo.d/
```

Check mount :

```
[root@localhost ~]# mount
proc on /proc type proc (rw,nosuid,nodev,noexec,relatime)
sysfs on /sys type sysfs (rw,nosuid,nodev,noexec,relatime,seclabel)
devtmpfs on /dev type devtmpfs (rw,nosuid,seclabel,size=4096k,nr_inodes=448139,mode=755,inode64)
securityfs on /sys/kernel/security type securityfs (rw,nosuid,nodev,noexec,relatime)
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev,seclabel,inode64)
devpts on /dev/pts type devpts (rw,nosuid,noexec,relatime,seclabel,gid=5,mode=620,ptmxmode=000)
tmpfs on /run type tmpfs (rw,nosuid,nodev,seclabel,size=729624k,nr_inodes=819200,mode=755,inode64)
cgroup2 on /sys/fs/cgroup type cgroup2 (rw,nosuid,nodev,noexec,relatime,seclabel,nsdelegate,memory_recursiveprot)
pstore on /sys/fs/pstore type pstore (rw,nosuid,nodev,noexec,relatime,seclabel)
bpf on /sys/fs/bpf type bpf (rw,nosuid,nodev,noexec,relatime,mode=700)
/dev/sda2 on / type xfs (rw,relatime,seclabel,attr2,inode64,logbufs=8,logsize=32k,noquota)
selinuxfs on /sys/fs/selinux type selinuxfs (rw,nosuid,noexec,relatime)
systemd-1 on /proc/sys/fs/binfmt_misc type autofs (rw,relatime,fd=29,pgrp=1,timeout=0,minproto=5,maxproto=5,direct,pipe_ino=18991)
hugetlbfs on /dev/hugepages type hugetlbfs (rw,relatime,seclabel,pagesize=2M)
mqueue on /dev/mqueue type mqueue (rw,nosuid,nodev,noexec,relatime,seclabel)
tracefs on /sys/kernel/tracing type tracefs (rw,nosuid,nodev,noexec,relatime,seclabel)
debugfs on /sys/kernel/debug type debugfs (rw,nosuid,nodev,noexec,relatime,seclabel)
fusectl on /sys/fs/fuse/connections type fusectl (rw,nosuid,nodev,noexec,relatime)
configfs on /sys/kernel/config type configfs (rw,nosuid,nodev,noexec,relatime)
none on /run/credentials/systemd-sysusers.service type ramfs (ro,nosuid,nodev,noexec,relatime,seclabel,mode=700)
none on /run/credentials/systemd-sysctl.service type ramfs (ro,nosuid,nodev,noexec,relatime,seclabel,mode=700)
none on /run/credentials/systemd-tmpfiles-setup-dev.service type ramfs (ro,nosuid,nodev,noexec,relatime,seclabel,mode=700)
/dev/sda1 on /boot type xfs (rw,relatime,seclabel,attr2,inode64,logbufs=8,logsize=32k,noquota)
none on /run/credentials/systemd-tmpfiles-setup.service type ramfs (ro,nosuid,nodev,noexec,relatime,seclabel,mode=700)
sunrpc on /var/lib/nfs/rpc_pipefs type rpc_pipefs (rw,relatime)
tmpfs on /run/user/1000 type tmpfs (rw,nosuid,nodev,relatime,seclabel,size=364808k,nr_inodes=91202,mode=700,uid=1000,gid=1000,inode64)
gvfsd-fuse on /run/user/1000/gvfs type fuse.gvfsd-fuse (rw,nosuid,nodev,relatime,user_id=1000,group_id=1000)
portal on /run/user/1000/doc type fuse.portal (rw,nosuid,nodev,relatime,user_id=1000,group_id=1000)
gvfsd-fuse on /run/user/0/gvfs type fuse.gvfsd-fuse (rw,nosuid,nodev,relatime,user_id=0,group_id=0)
portal on /run/user/0/doc type fuse.portal (rw,nosuid,nodev,relatime,user_id=0,group_id=0)
/dev/sr0 on /run/media/root/CentOS-Stream-9-BaseOS-x86_64 type iso9660 (ro,nosuid,nodev,relatime,nojoliet,check=s,map=n,blocksize=2048,uid=0,gid=0,dmode
=500,fmode=400,uhelper=udisks2)
[root@localhost ~]#
```

Create local.repo and rum yum clean all command :

```
[root@localhost ~]# vi local.repo
[root@localhost ~]# yum clean all
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

0 files removed
```

Rum yum repolist to check for repo :

```
[root@localhost ~]# yum repolist all
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

repo id                          repo name                                           status
appstream                        CentOS Stream 9 - AppStream                         enabled
appstream-debuginfo              CentOS Stream 9 - AppStream - Debug                 disabled
appstream-source                 CentOS Stream 9 - AppStream - Source                disabled
baseos                           CentOS Stream 9 - BaseOS                            enabled
baseos-debuginfo                 CentOS Stream 9 - BaseOS - Debug                    disabled
baseos-source                    CentOS Stream 9 - BaseOS - Source                   disabled
crb                              CentOS Stream 9 - CRB                               disabled
crb-debuginfo                    CentOS Stream 9 - CRB - Debug                       disabled
crb-source                       CentOS Stream 9 - CRB - Source                      disabled
extras-common                    CentOS Stream 9 - Extras packages                   enabled
extras-common-source             CentOS Stream 9 - Extras packages - Source          disabled
highavailability                 CentOS Stream 9 - HighAvailability                  disabled
highavailability-debuginfo       CentOS Stream 9 - HighAvailability - Debug          disabled
highavailability-source          CentOS Stream 9 - HighAvailability - Source         disabled
nfv                              CentOS Stream 9 - NFV                               disabled
nfv-debuginfo                    CentOS Stream 9 - NFV - Debug                        disabled
nfv-source                       CentOS Stream 9 - NFV - Source                       disabled
resilientstorage                 CentOS Stream 9 - ResilientStorage                  disabled
resilientstorage-debuginfo       CentOS Stream 9 - ResilientStorage - Debug          disabled
resilientstorage-source          CentOS Stream 9 - ResilientStorage - Source         disabled
rt                               CentOS Stream 9 - RT                                disabled
rt-debuginfo                     CentOS Stream 9 - RT - Debug                         disabled
rt-source                        CentOS Stream 9 - RT - Source                        disabled
[root@localhost ~]#
```

Install httpd and check for http server :

```
[root@localhost ~]# cd /var/www/html
[root@localhost html]# cd ~
[root@localhost ~]# systemctl status httpd
○ httpd.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
     Active: inactive (dead)
       Docs: man:httpd.service(8)
[root@localhost ~]#
```

Check machine ip :

```
[root@localhost ~]# ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.2.15  netmask 255.255.255.0  broadcast 10.0.2.255
        inet6 fe80::a00:27ff:fe51:f41  prefixlen 64  scopeid 0x20<link>
        ether 08:00:27:51:0f:41  txqueuelen 1000  (Ethernet)
        RX packets 44845  bytes 66010230 (62.9 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 9959  bytes 619123 (604.6 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop  txqueuelen 1000  (Local Loopback)
        RX packets 61  bytes 5076 (4.9 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 61  bytes 5076 (4.9 KiB)
        TX errors 0  dropped 0 overruns 0  carrier 0  collisions 0
```

Activate Firewall and check system status :

```
[root@localhost ~]# firewall-cmd --add-service=http --zone=public --permanent
success
[root@localhost ~]# firewall-cmd --reload
success
[root@localhost ~]# systemctl start httpd
[root@localhost ~]# systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.
[root@localhost ~]# systemctl status httpd
● httpd.service - The Apache HTTP Server
     Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; preset: disabled)
     Active: active (running) since Tue 2024-09-24 00:23:38 IST; 25s ago
       Docs: man:httpd.service(8)
   Main PID: 10420 (httpd)
     Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec:   0 B/sec"
      Tasks: 178 (limit: 22406)
     Memory: 29.4M
        CPU: 164ms
     CGroup: /system.slice/httpd.service
             ├─10420 /usr/sbin/httpd -DFOREGROUND
             ├─10422 /usr/sbin/httpd -DFOREGROUND
             ├─10423 /usr/sbin/httpd -DFOREGROUND
             ├─10424 /usr/sbin/httpd -DFOREGROUND
             ├─10428 /usr/sbin/httpd -DFOREGROUND
             └─10429 /usr/sbin/httpd -DFOREGROUND

Sep 24 00:23:38 localhost.localdomain systemd[1]: Starting The Apache HTTP Server...
Sep 24 00:23:38 localhost.localdomain httpd[10420]: AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using localh>
Sep 24 00:23:38 localhost.localdomain httpd[10420]: Server configured, listening on: port 443, port 80
Sep 24 00:23:38 localhost.localdomain systemd[1]: Started The Apache HTTP Server.
lines 1-21/21 (END)
```

Output on browser :