users and group:

create group /user
useradd harry
useradd natasha
useradd sarah
useradd ben
useradd gold

groupadd admin
gpasswd -a harry admin
gpasswd -a natasha admin

usermod -s /sbin/nologin

passwd harry
passwd natasha

permission:
su - natasha
umask 077
mkdir linux
ls -la
logout

collaborative:
mkdir -p /common/admin

ownership:
chown :admin /common/admin

directory readable,writeable
chmod 770 /common/admin

when new files created:
chmod g+s /common/admin (to check- (ls -la /common/admin))

sudo

create alias:
vim /etc/sudoers
(inside file)

Cmnd-Alias USERCMD = /usr/sbin/useradd, /usr/bin/lsblk, /usr/sbin/usermod ,/usr/bin/chmod, /usr/bin/passwd, /usr/sbin/fdisk
Cmnd-Alias SERVERCMD = /usr/bin/systemctl, /usr/sbin/firewalld, /usr/bin/top, /usr/bin/ps, /usr/sbin/ping

%admin ALL=(ALL) NOPASSWD: USERCMD

set the permission:
su - natasha
a)umask 266 natasha (files) (t0 check(ls -lrt ,ls -la))
b)umask 277 natasha (directories)
logout

scheduling:
su - harry
at 12:30
at> /bin/echo "hello"
at>ctrl+d
logout

su - natasha
mkdir /home/natasha/backup_logs
mkdir /home/natasha/cache_logs
logout

vim /etc/crontab
0 */5 * * fri natasha /bin/rsync -a /var/log /home/natasha/backup_logs
0 */5 * jan 1-5 natasha /bin/rsync -a /var/cache /home/natasha/cache_logs
:wq!
crontab -l (to list)

create an archive file:
tar -czf /root/test.tar.gz /var/temp (tar - zip file, c - create, z- compress,f-filename)
tar -cjf /root/en_services.tar.bz2 /etc/systemd(j-compress archive-bzip2)
tar -czf /root/en_services.tar.gz /etc/systemd
zip -r /root/en_services.zip /etc/systemd

copy files:
cp /etc/fstab /var/tmp/fstab
change a ownership:
chown root:root /var/tmp/fstab
chmod 644 /var/tmp/fstab
setfacl -m u:natasha:rw- /var/tmp/fstab
setfacl -m u:susan:--- /var/tmp/fstab(To set susan)(*first create user susan- useradd susan,passwd susan)
getfacl /var/tmp/fstab (to check)

web server:
yum install apache2
systemctl start apache2
systemctl enable apache2

swap:

Create a swap partition with 320MB
create virutal disk
shutdown virutal machine then do * process

#
#fdisk /*dev*/neme0n2
commond: n
(select default p):p
command :t
Hexa code : l(L small)
Hexa code :82
command:w

#lsblk
#mkswap /*dev*/nvme0n2p (select or give name what show in list 320MB)
#swapon /*dev*/nvme0n2p
#swapon –show

LVM:

Volume group name= development
Logical volume name= engineering
Volume group size=10GB
Logical Volume size=5Gb
Mount under /rp20 with xfs filesystem.
#lsblk

#pvcreate /dev/nvme0n{3,4,5} (use your disk name in list lsblk)
#pvs(To check)
#vgcreate development /dev/nvme0n{2,3,4}
#vgs(To check)
#lvcreate -L +5G -n engineering development
#lvs(to check)
#mkfs.xfs /dev/development/engineering
mkdir /rp20
#mount /dev/development /engineering /rp20
#vim /*etc/*fstab
/dev/development/engineering /rp20 xfs default 0 0
#mount -a
#df -hT(to check)

10. LVM Resize:
Extended development size up to 15Gb.
Resize engineering size to 12GB.
#vgextend development /dev/nvme0n5 (use your diskname)
#vgextend development /dev/nvme0n5
#lvextend -L +7G /dev/development/engineering
#xfs_growfs /*dev*/development/engineering
#lvs (to check)

10. Create a repository
(Note: remove all repositories then configure repos)

#cd /*etc*/yum.repos.d

#rm -rf *

#yum clean all

Install repositories

Create file

```
sudo vim /etc/yum.repos.d/example.repo
```

```
inside file
```

```
[AppStream]
name=AppStream Repository
baseurl=http://content.example.com/rhel9.0/x86_64/dvd/AppStream
enabled=1
gpgcheck=0

[BaseOS]
name=BaseOS Repository
baseurl=http://content.example.com/rhel9.0/x86_64/dvd/BaseOS
enabled=1
gpgcheck=0
```

```
:wq!
```

```
# sudo dnf makecache
```

baseurl: http://content.example.com/rhel9.0/x86_64/dvd/AppStream

baseurlhttp://content.example.com/rhel9.0/x86_64/dvd/BaseOS

#yum repolist (To check)

configure the EPEL repositories and install htop and google chrome

#yum search google-chrome

#yum install google-chrome (give the you get for search)

#yum search htop

#yum install htop