Task1

1-reboot

2-interrupt the Grub

3-press e to edit

4-append rd.break to the line that start with linux

5-press ctrl+x

6-


```
    Booting a command list

Generating "/run/initramfs/rdsosreport.txt"

Entering emergency mode. Exit the shell to continue.
Type "journalctl" to view system logs.
You might want to save "/run/initramfs/rdsosreport.txt" to a USB stick or /boot
after mounting them and attach it to a bug report.

switch_root:/# mount -o remount,rw /sysroot
switch_root:/# chroot /sysroot/
sh-5.1# passwd
Changing password for user root.
New password:
BAD PASSWORD: The password fails the dictionary check - it is based on a dictionary word
Retype new password:
passwd: all authentication tokens updated successfully.
sh-5.1# touch /.autorelabel
```

7-press ctrl+d twice

8-login at root and set password
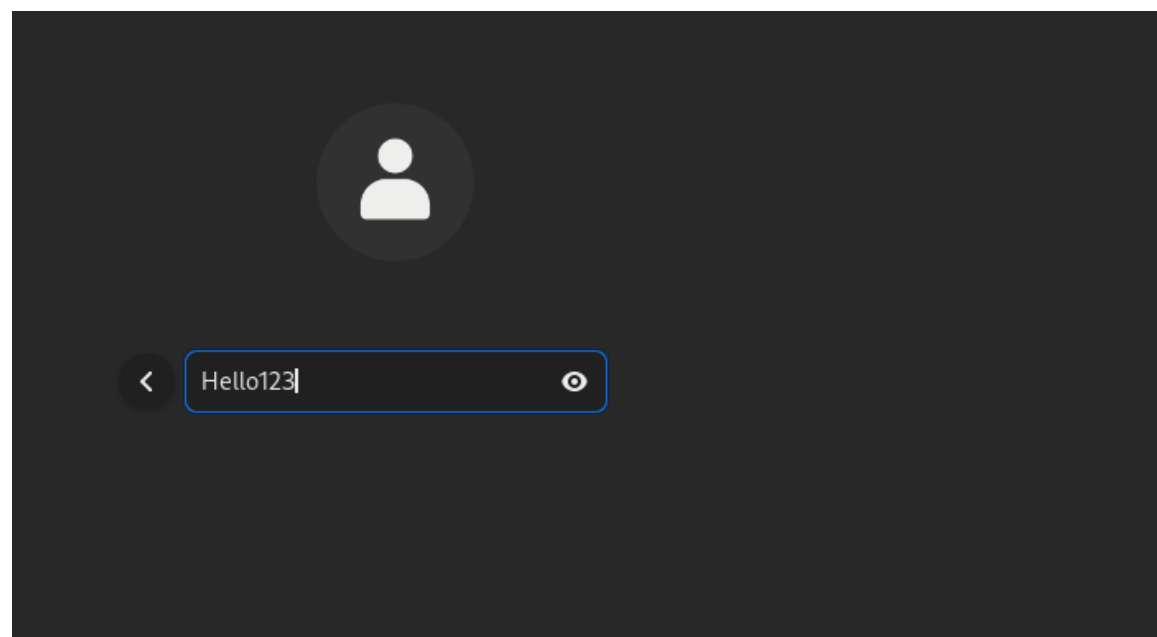
Task 2

1-

```
[root@yassmin ~]# crontab -e
```

root@yassmin:~

2-

root@yassmin:~ — crontab -e

```
00      10      *       *       *       echo"hello"
~
~
```
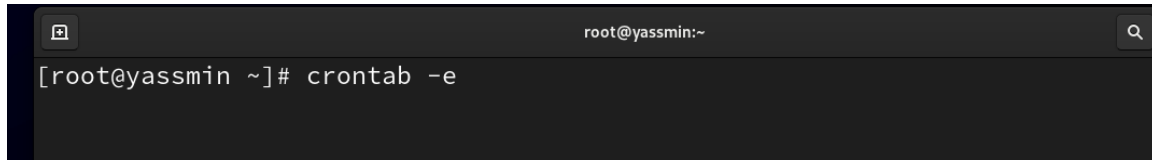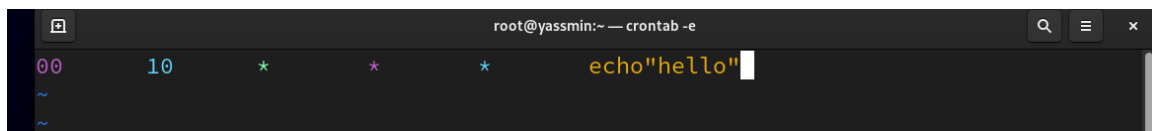
3-
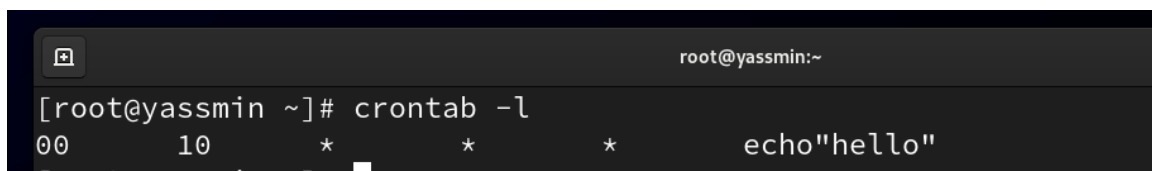
root@yassmin:~

```
[root@yassmin ~]# crontab -l
00      10      *       *       *       echo"hello"
```

Task 3

a-add new disk

-Power off machine

-choose edit virtual machine settings

-choose add hard disk

-type : nvme

b-

1-

```
[root@yassmin ~]# fdisk /dev/nvme0n2
```

-Make part1>>4G

```
Command (m for help): n
Partition type
   p   primary (0 primary, 0 extended, 4 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (1-4, default 1): 1
First sector (2048-31457279, default 2048):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (2048-31457279, default 31457279): +4g

Created a new partition 1 of type 'Linux' and of size 4 GiB.

Command (m for help): t
Selected partition 1
Hex code or alias (type L to list all): 8e
Changed type of partition 'Linux' to 'Linux LVM'.
```

-make part2>>3G

```
Command (m for help): n
Partition type
   p   primary (1 primary, 0 extended, 3 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (2-4, default 2):
First sector (8390656-31457279, default 8390656):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (8390656-31457279, default 31457279): +3g

Created a new partition 2 of type 'Linux' and of size 3 GiB.

Command (m for help): t
Partition number (1,2, default 2): 2
Hex code or alias (type L to list all): 8e

Changed type of partition 'Linux' to 'Linux LVM'.
```

-save two part

```
Command (m for help): w
```

-make partprobe to device

```
nvme0         nvme0n1     nvme0n1p1   nvme0n1p2   nvme0n2     nvme
[root@yassmin ~]# partprobe /dev/nvme0n2
```

2-create physical volume for two part

```
[root@yassmin ~]# pvcreate /dev/nvme0n2p1 /dev/nvme0n2p2
  Physical volume "/dev/nvme0n2p1" successfully created.
  Physical volume "/dev/nvme0n2p2" successfully created.
```

```
[root@yassmin ~]# pvs
  PV             VG    Fmt  Attr PSize    PFree
  /dev/nvme0n1p2 rhel  lvm2 a--  <19.00g      0
  /dev/nvme0n2p1       lvm2 ---    4.00g 4.00g
  /dev/nvme0n2p2       lvm2 ---    3.00g 3.00g
[root@yassmin ~]#
```

3-create volume group

```
[root@yassmin ~]# vgcreate -s 16M VG1 /dev/nvme0n2p1 /dev/nvme0n2p2
  Volume group "VG1" successfully created
[root@yassmin ~]# vgs
  VG   #PV #LV #SN Attr   VSize   VFree
  VG1    2   0   0 wz--n- <6.97g <6.97g
  rhel   1   2   0 wz--n- <19.00g     0
[root@yassmin ~]# pvs
  PV             VG    Fmt  Attr PSize    PFree
  /dev/nvme0n1p2 rhel  lvm2 a--  <19.00g     0
  /dev/nvme0n2p1 VG1   lvm2 a--    3.98g 3.98g
  /dev/nvme0n2p2 VG1   lvm2 a--    2.98g 2.98g
```

4-create logical volume

```
[root@yassmin ~]# lvcreate --size 800M --name LV1 VG1
  Logical volume "LV1" created.
[root@yassmin ~]# lvs
  LV   VG   Attr       LSize    Pool Origin Data%  Meta%  Move Log Cpy%Sync Convert
  LV1  VG1  -wi-a----- 800.00m
  root rhel -wi-ao---- <17.00g
  swap rhel -wi-ao----   2.00g
```

5-make file system

```
[root@yassmin ~]# mkfs.ext4 /dev/VG1/LV1
mke2fs 1.46.5 (30-Dec-2021)
Creating filesystem with 204800 4k blocks and 51296 inodes
Filesystem UUID: 9ff44bf2-f365-4352-b024-d2b48571efe8
Superblock backups stored on blocks:
        32768, 98304, 163840

Allocating group tables: done
Writing inode tables: done
Creating journal (4096 blocks): done
Writing superblocks and filesystem accounting information: done
```

6-mount

```
[root@yassmin ~]# ls /
afs/            dev/            lib64/          proc/           srv/            var/
.bash_history   etc/            media/          root/           sys/
bin/            home/           mnt/            run/            tmp/
boot/           lib/            opt/            sbin/           usr/
```

```
[root@yassmin ~]# cd /mnt/
```

```
[root@yassmin mnt]# mkdir data
```

```
[root@yassmin mnt]# cd data
[root@yassmin data]# pwd
/mnt/data
[root@yassmin data]#
```

```
root@yassmin:/mnt/data          ×          root@yassmin:/mnt/data
[root@yassmin data]# vim /etc/fstab
```

```
/dev/VG1/LV1    /mnt/data       ext4    defaults        0 0
~
```

```
[root@yassmin data]# mount -a
```

```
[root@yassmin ~]# df -h
Filesystem              Size  Used Avail Use% Mounted on
devtmpfs                4.0M     0  4.0M   0% /dev
tmpfs                   1.8G     0  1.8G   0% /dev/shm
tmpfs                   724M  9.7M  714M   2% /run
/dev/mapper/rhel-root    17G  5.5G   12G  33% /
/dev/nvme0n1p1          960M  301M  660M  32% /boot
tmpfs                   362M   96K  362M   1% /run/user/0
/dev/sr0                9.9G  9.9G     0 100% /run/media/root/RHEL-9-3-0-BaseOS-x86_64
/dev/mapper/VG1-LV1     770M   24K  714M   1% /mnt/data
[root@yassmin ~]# ls /mnt/data/
lost+found
```

Task 4

1-umount

```
[root@yassmin ~]# umount /mnt/data
```

2-make part3>>2G

```
[root@yassmin ~]# fdisk /dev/nvme0n2

Welcome to fdisk (util-linux 2.37.4).
Changes will remain in memory only, until you decide to write them.
Be careful before using the write command.

This disk is currently in use - repartitioning is probably a bad idea.
It's recommended to umount all file systems, and swapoff all swap
partitions on this disk.


Command (m for help): n
Partition type
   p   primary (2 primary, 0 extended, 2 free)
   e   extended (container for logical partitions)
Select (default p): p
Partition number (3,4, default 3):
First sector (14682112-31457279, default 14682112):
Last sector, +/-sectors or +/-size{K,M,G,T,P} (14682112-31457279, default 314

Created a new partition 3 of type 'Linux' and of size 2 GiB.

Command (m for help): w
```

```
[root@yassmin ~]# partprobe /dev/nvme0n2
```

3-

```
[root@yassmin ~]# free -m
              total        used        free      shared  buff/cache   available
Mem:           3616        1429        1764          25         672        2186
Swap:          2047           0        2047
```

4-

```
[root@yassmin ~]# mkswap /dev/nvme0n2p3
Setting up swapspace version 1, size = 2 GiB (2147479552 bytes)
no label, UUID=ec869cf6-ae62-458d-90f2-b8237061d07d
```

```
Swap:           2047           0        2047
[root@yassmin ~]# swapon /dev/nvme0n2p3
```

```
[root@yassmin ~]# free -m
              total        used        free      shared  buff/cache   available
Mem:           3616        1433        1763          25         671        2182
Swap:          4095           0        4095
```

5-to make swap permanent

```
[root@yassmin ~]# vim /etc/fstab
```

```
/dev/nvme0n2p3   swap     swap     defaults          0 0
~
```

Task 5

-umount /mnt/data

```
[root@yassmin ~]# umount /mnt/data/
```

-lvreduce

```
[root@yassmin ~]# lvreduce -r -L  -290M /dev/VG1/LV1
```

-vgreduce

```
[root@yassmin ~]# vgreduce    VG1 /dev/nvme0n2p1
```

```
[root@yassmin ~]# lvs
  LV   VG   Attr       LSize   Pool Origin Data%  Meta%  Move Log Cpy%Sync Convert
  LV1  VG1  -wi-a----- 224.00m
```

Task 6

At server

```
[root@yassmin ~]# yum install httpd
```

```
[root@yassmin ~]# mkdir /var/www/html/packages/
[root@yassmin ~]# echo "Welcome" > /var/www/html/packages/index.html
[root@yassmin ~]# systemctl enable httpd
```

```
[root@yassmin ~]# systemctl start firewalld
[root@yassmin ~]# firewall-cmd --add-service=http --permanent
success
[root@yassmin ~]# firewall-cmd --reload
success
[root@yassmin ~]#
```

At client

```
[root@localhost ~]# yum install autofs
```

```
[root@localhost ~]# systemctl start autofs
[root@localhost ~]# systemctl enable autofs
```

```
[root@localhost ~]# vim /etc/auto.packages
```

```
                                root@localhost:~ — vim /etc/auto.packages
packages          -fstype=auto,ro :http://192.168.72.136/packages
~
~
~
~
~
```

```
[root@localhost ~]# vim /etc/auto.master
```

```
# above) in the included master map any keys that are the
# same will not be seen as the first read key seen takes
# precedence.
#
+auto.master
/mnt/packages    /etc/auto.packages
```

192.168.72.136/packages/   ×   +

← → C   ○   🔒 192.168.72.136/packages/   ☆

⊕ Centos   ⊕ Wiki   ⊕ Documentation   ⊕ Forums

Welcome