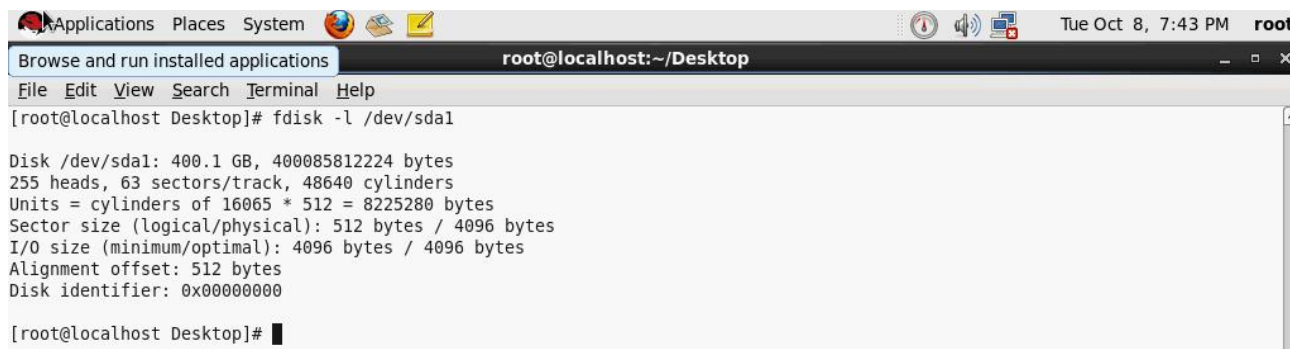


To format and align a JBOD SSD under RHEL 6.4 by using “**parted**”

A. To identify the JBOD SSD:

1. open a terminal
2. input command: `fdisk -l /dev/sda` (assume sda is the JBOD SSD)
3. The size is 400GB.



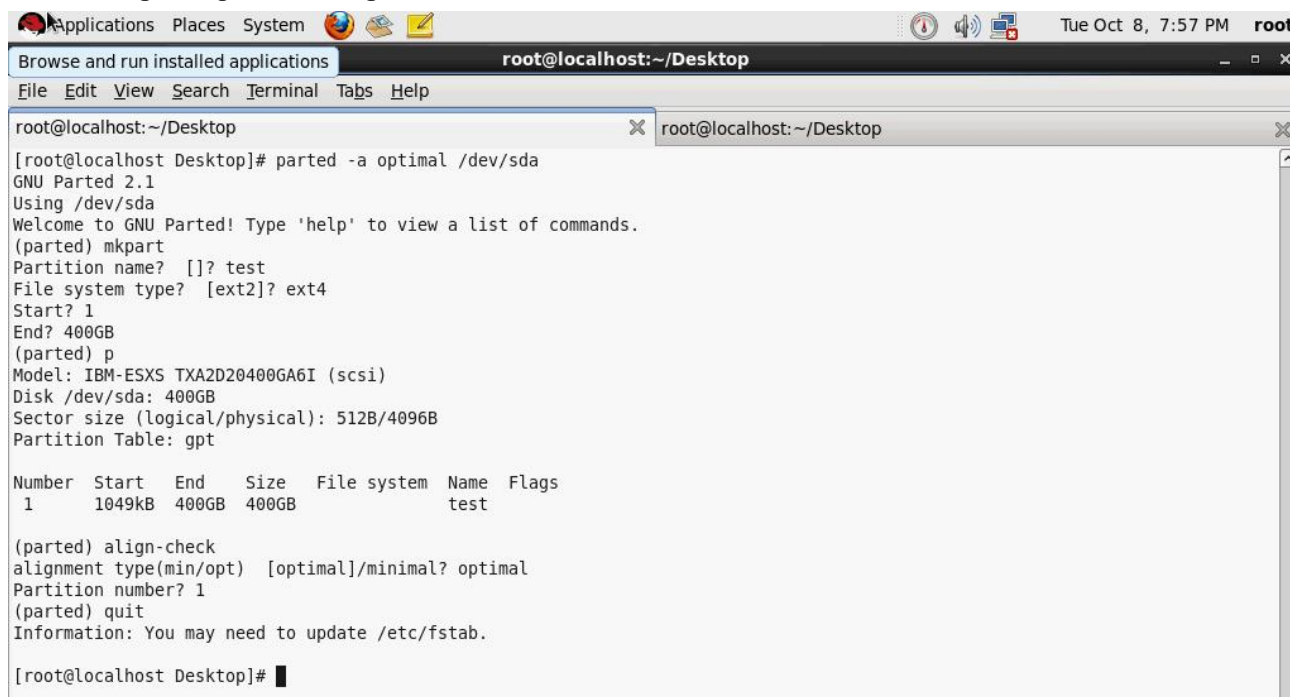
```
Applications Places System root@localhost:~/Desktop
Browse and run installed applications
File Edit View Search Terminal Help
[root@localhost Desktop]# fdisk -l /dev/sda1

Disk /dev/sda1: 400.1 GB, 400085812224 bytes
255 heads, 63 sectors/track, 48640 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes
Sector size (logical/physical): 512 bytes / 4096 bytes
I/O size (minimum/optimal): 4096 bytes / 4096 bytes
Alignment offset: 512 bytes
Disk identifier: 0x00000000

[root@localhost Desktop]#
```

B. To create a partition on the JBOD SSD by using “**parted**”

1. input command: `parted -a optimal /dev/sda`
2. In parted interaction interface, input: “mkpart” to create a partition.
3. setup the partition name, file system type, starting block and ending block
4. input: “p” to print out partition information
5. input: “align-check” to optimize partition alignment
6. input: “quit” to exit parted.



```
Applications Places System root@localhost:~/Desktop
Browse and run installed applications
File Edit View Search Terminal Tabs Help
root@localhost:~/Desktop
[root@localhost Desktop]# parted -a optimal /dev/sda
GNU Parted 2.1
Using /dev/sda
Welcome to GNU Parted! Type 'help' to view a list of commands.
(parted) mkpart
Partition name? []? test
File system type? [ext2]? ext4
Start? 1
End? 400GB
(parted) p
Model: IBM-ESXS TXA2D20400GA6I (scsi)
Disk /dev/sda: 400GB
Sector size (logical/physical): 512B/4096B
Partition Table: gpt

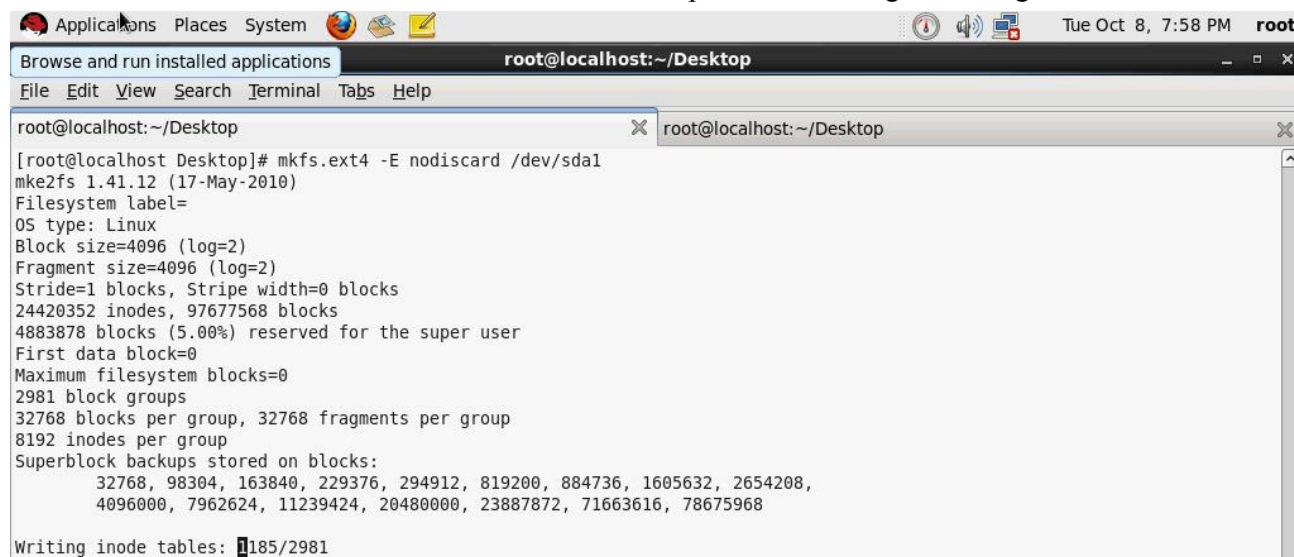
Number  Start   End     Size    File system  Name  Flags
  1      1049kB  400GB   400GB                   test

(parted) align-check
alignment type(min/opt) [optimal]/minimal? optimal
Partition number? 1
(parted) quit
Information: You may need to update /etc/fstab.

[root@localhost Desktop]#
```

C. To format the JBOD SSD with “nodiscard”(no TRIM) parameter

1. input: `mkfs.ext4 -E nodiscard /dev/sda1`
2. The JBOD SSD will be formatted in normal speed and the alignment is good.



The screenshot shows a terminal window titled "root@localhost: ~/Desktop". The command `mkfs.ext4 -E nodiscard /dev/sda1` has been executed. The output displays various filesystem parameters for the newly created ext4 filesystem on /dev/sda1.

```
root@localhost:~/Desktop
[root@localhost Desktop]# mkfs.ext4 -E nodiscard /dev/sda1
mke2fs 1.41.12 (17-May-2010)
Filesystem label=
OS type: Linux
Block size=4096 (log=2)
Fragment size=4096 (log=2)
Stride=1 blocks, Stripe width=0 blocks
24420352 inodes, 97677568 blocks
4883878 blocks (5.00%) reserved for the super user
First data block=0
Maximum filesystem blocks=0
2981 block groups
32768 blocks per group, 32768 fragments per group
8192 inodes per group
Superblock backups stored on blocks:
    32768, 98304, 163840, 229376, 294912, 819200, 884736, 1605632, 2654208,
    4096000, 7962624, 11239424, 20480000, 23887872, 71663616, 78675968

Writing inode tables: 1185/2981
```