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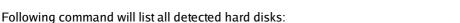
#### **Linux Hard Disk Format Command**

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Q. I've installed a new 250GB SATA hard disk on our office CentOS Linux server. How do I format a hard disk under Linux operating system from a shell prompt?

A.. There are total 4 steps involved for hard disk upgrade and installation procedure:

### Step #1: Partition the new disk using fdisk command



```
# fdisk -l | grep '^Disk'
```

#### Output:

```
Disk /dev/sda: 251.0 GB, 251000193024 bytes
Disk /dev/sdb: 251.0 GB, 251000193024 bytes
```

A device name refers to the entire hard disk. For more information see <u>Linux partition naming convention and IDE drive</u> mappings [2].

To partition the disk - /dev/sdb, enter:

```
# fdisk /dev/sdb
```

The basic fdisk commands you need are:

- m print help
- p print the partition table
- n create a new partition
- **d** delete a partition
- q quit without saving changes
- w write the new partition table and exit

# Step#2: Format the new disk using mkfs.ext3 command

To format Linux partitions using ext2fs on the new disk:

```
# mkfs.ext3 /dev/sdb1
```

## Step#3: Mount the new disk using mount command

First create a mount point /disk1 and use mount command to mount /dev/sdb1, enter:

```
# mkdir /disk1
# mount /dev/sdb1 /disk1
# df -H
```

## Step#4 : Update /etc/fstab file

Open /etc/fstab file, enter:

```
# vi /etc/fstab
```

Append as follows:

/dev/sdb1 /disk1 ext3 defaults 1 2

Save and close the file.

### Task: Label the partition

You can label the partition using e2label. For example, if you want to label the new partition /backup, enter

# e2label /dev/sdb1 /backup

You can use label name insted of partition name to mount disk using /etc/fstab:

LABEL=/backup /disk1 ext3 defaults 1 2

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- [2] Linux partition naming convention and IDE drive mappings: http://www.cyberciti.biz/faq/linux-partition-naming-convention-and-ide-drive-mappings/

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