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How to Create, configure and mount a new Linux file system

By: Alejandro Vargas | Senior Advanced Support Engineer at Oracle Advanced Customer Services

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1) Create one or more partitions using fdisk:
fdisk /dev/sdb
N (new partition)
p (primary partition)

Accept default initial and end blocks if you want to create a single partiton with the whole disk

w (write the information and quit)

2) check the new partition

```
[root@vmractest3 root]# fdisk -l
Disk /dev/sdb: 21.4 GB, 21474836480 bytes
255 heads, 63 sectors/track, 2610 cylinders
Units = cylinders of 16065 * 512 = 8225280 bytes

   Device Boot    Start       End    Blocks   Id  System
/dev/sdb1             1      2610  20964793+  83  Linux
```

3) Format the new partition as an ext3 file system type:

/sbin/mkfs -t ext3 **/dev/*sdb1***

4)Assigning a Label with e2label

Once you have created and formated a partition,

you should assign it a label using the e2label command. This allows you

to add the partition to /etc/fstab using a label instead of using a

device path, thereby making the system more robust. [1] To add a label

to a partition, type the following command as root:

/sbin/e2label /dev/s *db1 /oradisk*

5) Then add the new partition to /etc/fstab, this way it will be mounted at reboot:

To check the label use this command:

[root@vmractest3 root]# /sbin/tune2fs -l /dev/sdb1 |grep volume

Filesystem volume name: /oradisk

vi /etc/fstab and add the following line:

LABEL=/oradisk   /oradisk   ext3   defaults   1 2

6) Mount the new file system:

First create the base directory and assign it to the user that will own it

[root@vmractest3 root]# mkdir /oradisk

```
[root@vmractest3 root]#chown oracle:dba /oradisk
```

Then mount it

```
[root@vmractest3 root]# mount /dev/sdb1 /oradisk
```

And check it

```
[root@vmractest3 root]# df -k
Filesystem           1K-blocks      Used Available Use% Mounted on
/dev/sda2             8064304   2181296   5473352  29% /
/dev/sda1              101089      9272     86598  10% /boot
none                   513748         0    513748   0% /dev/shm
/dev/sdb1            20635700     32828  19554636   1% /oradisk
```

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