Due Date	3/13/18 11:59 PM
Status	Needs Grading
Attempt Score	0 out of 4 points
Time Elapsed	0 minute
Results Displayed	All Answers, Submitted Answers, Incorrectly Answered Questions

Question 1

4 out of 4 points

Root privilege is required for executing most of the commands in this lab. Before starting this lab, your 2GB hard disk (sdb2) should be partitioned to follow the result of lab 5. You can view this picture to see how the hard disk should be partitioned: Example Hard Disk. Note that sdb6 should be the Linux Swap partition type.

Exercise #1: Creating a Linux filesystem

Use the **mkfs** command to format the two primary partitions created in lab5. and record the commands you used:

[a]

[b]

*Note: if no filesystem type is specified with **mkfs**, it will default to ext2.*

Exercise #2: Creating a swap filesystem

When working with the swap space we use two commands. One command is used to create a swap filesystem, which is used by the virtual memory system to temporarily store data. The command is **mkswap** and the syntax is:

$ mkswap device_name

Record the command you use to create a swap filesystem on the swap partition you created in lab5:

[c]

The second command is used to activate the swap space, so that the virtual memory system can use the swap space. The command is **swapon** and the syntax is:

$ swapon device_name

Record the command you use to activate the swap partition:

[d]

To verify the swap partitions that are currently active, use the following command:

$ swapon -s

Exercise #3: Mount & unmount a Linux filesystem

Create a log file

Redirect the output of **fdisk -l** to the log file named **~/fslab6** (if you're logged in as root, ~/fslab6 is /root/fslab6) using the following commands:

$ fdisk -l > ~/fslab6

Append an empty line into the log file using:

$ echo "" >> ~/fslab6

A newly created filesystem is not recorded in the **/etc/fstab** file. Therefore, we need to mount the filesystem manually. In this exercise we mount the Linux partition that we created in lab5.

The syntax of the mount command is:

$ mount -t type device mount-point

To mount the newly created Linux partition:

$ mkdir /mnt/new

- Create a mount point

$ mount -t ext4 /dev/sdb1 /mnt/new

- /dev/sdb1 is the newly created partition in lab5 part 1

$ ls /mnt/new

- List the directory contents. Since this is a new partition, you will see only one directory that is created by **mkfs**: lost+found.

Add to log file

$ mount >> ~/fslab6

- Append the output of the mount command to **~/fslab6**

$ echo "" >> ~/fslab6

- Append an empty line.

$ umount /mnt/new

- Unmount the filesystem located on the partition.

Exercise #4: Mount & unmount a CDROM disk

Put a CD-ROM or DVD disk in the CDROM drive and follow the steps below (Use the Ubuntu installation ISO image if you prefer):

$ mkdir /mnt/cdrom

- Create a mount point for mounting the CDROM.

$ mount -t iso9660 /dev/cdrom /mnt/cdrom

- Mount a CDROM filesystem and make the files on it available in the **/mnt/cdrom** directory.

$ ls -l /mnt/cdrom

- List the contents of the **/mnt/cdrom** directory.

$ umount /mnt/cdrom

- Unmount the CDROM filesystem.

Exercise #5: Mount a partition automatically during boot

Use **vim** to insert a new line at the end of the **/etc/fstab** file to automatically mount the first primary partition (/dev/sdb1) you created in lab5 at the mount point **/mnt/blank** (make sure you create the directory) when the system boots up. Be very careful when editing this file.

Please insert the following:

/dev/sdb1 /mnt/blank ext4 defaults 0 0

Add to log file

$ cat /etc/fstab >> ~/fslab6

- Append the new **/etc/fstab** file to **~/fslab6**

Specified Answer for: a	sudo mkfs -t ext4 /dev/sdb1
Specified Answer for: b	sudo mkfs -t ext4 /dev/sdb2
Specified Answer for: c	sudo mkswap /dev/sdb6
Specified Answer for: d	sudo swapon /dev/sdb6

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← OK