# Week 5 Linux Projects - Chapter 4 Linux Filesystem Management

Activities

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**How to Create Screenshots:** Please use the Windows Snip and Sketch Tool or the Snipping Tool. Paste a screenshot of just the program you are working on. If you are snipping a virtual machine, make sure your focus is outside the virtual machine before you snip.

1. Press and hold down the **Windows key** & **Shift**, then type **S.** This brings up the on-screen snipping tool.
2. Click and Drag your mouse around whatever you want to snip.
3. Release the mouse button. This places the snip into the Windows Clipboard.
4. Go into Word or wherever you want to paste the snip. Hold down **CTRL**, then type **V** to paste the snip.

## Update Kali Linux

In Kali Linux in the terminal.

|  |
| --- |
| sudo apt update  sudo apt dist-upgrade -y |

# Project 4-1: Work with Directories

Time required: 15 minutes

In this hands-on project, you log in to the computer and create new directories.

1. Log in to Kali with user. Open a terminal.
2. Type **ls** and press **Enter**. Note the contents of your home folder.
3. The **touch** command to used to create empty text files. Use touch to create sample1, sample2, and sample3.

|  |
| --- |
| touch sample1  touch sample2  touch sample3 |

**mkdir** creates directories

1. Type **mkdir mysamples** and press **Enter**.
2. Type **ls -F** and press **Enter**. Notice the directory listing view changed.
3. How many files and subdirectories are there? Why?

Click or tap here to enter text.

1. Type **cd mysamples** and press **Enter**. You should be in the mysamples directory.
2. Type **ls** and press **Enter**.
3. What are the contents of the subdirectory **mysamples**?

Click or tap here to enter text.

1. Type **mkdir undermysamples** and press **Enter**.
2. Type **ls** and press **Enter**.
3. What are the contents of the subdirectory **underysamples**?

Click or tap here to enter text.

1. Type **mkdir todelete** and press **Enter**.
2. Type **ls** and press **Enter**.
3. Does the subdirectory **todelete** you just created appear listed in the display?

Click or tap here to enter text.

1. Type **cd ..** and press **Enter**.
2. Type **ls -R** and press **Enter**. Notice that the subdirectory mysamples and its subdirectory undermysamples are both displayed. You have used the recursive option with the **ls** command.
3. Insert a screenshot of the results.

Click or tap here to enter text.

1. Type **cd ..** and press **Enter**.
2. Type **pwd** and press **Enter**.
3. What is your current directory?

Click or tap here to enter text.

1. Type **mkdir foruser1** and press **Enter**.
2. Type **ls** and press **Enter**.
3. Does the subdirectory you just created appear listed in the display?

Click or tap here to enter text.

1. Insert a screenshot.

Click or tap here to enter text.

# Project 4-2: Copy with cp

Time required: 20 minutes

In this hands-on project, you copy files using the **cp** command. The cp command copies files and directories.

The cp command has two parts. **cp source destination**

1. Log in to Kali with user. Open a terminal.
2. Use **cd ~** to go to the user home folder.
3. Type **ls** and press **Enter**. Note the contents of your home folder.
4. Type **cp sample1** and press **Enter**.
5. What error message was displayed and why?

Click or tap here to enter text.

1. Type **cp sample1 sample1A** and press **Enter**. This will make a duplicate of **sample1** names **sample1A**
2. Type **ls** and press **Enter**.
3. How many files are there, and what are their names? Why?

Click or tap here to enter text.

1. Type **cp sample1 mysamples/sample1B** and press **Enter**. This should copy sample1 to the mysamples folder as sample1B.
2. Type **ls** and press **Enter**.
3. How many files are there, and what are their names? Why?

Click or tap here to enter text.

1. Type **cd mysamples** and press **Enter**.
2. Type **ls** and press **Enter**.
3. Was **sample1B** copied successfully?

Click or tap here to enter text.

1. Use **cd ~** to move to your home directory.
2. Type **cp sample1 sample2 sample3 mysamples** and press **Enter**. This should copy all three of the sample files to the folder mysamples.
3. Type **cd mysamples** and press **Enter**.
4. Type **ls** and press **Enter**.
5. How many files are there, and what are their names? Why?

Click or tap here to enter text.

1. Type **cd ..** and press **Enter**.
2. Type **cp mysamples mysamples2** and press **Enter**.
3. What error message did you receive? Why?

Click or tap here to enter text.

1. Type **cp –R mysamples mysamples2** and press **Enter**.
2. Type **ls** and press **Enter**.
3. Was the directory copied successfully?

Click or tap here to enter text.

1. Type **ls mysamples2** and press **Enter**. You can list the contents of a folder you are not in.
2. Were the contents of **mysamples** successfully copied to **mysamples2**?

Click or tap here to enter text.

1. Insert a screenshot.

Click or tap here to enter text.

# Project 4-3: Move with mv

Time required: 20 minutes

In this hands-on project, you use the **mv** command to move or rename files and directories.

The mv command has two parts. **mv source destination**

1. Log in to Kali with user. Open a terminal.
2. Type **ls** and press **Enter**. Note the contents of your home folder.
3. Type **mv sample1** and press **Enter**.
4. What error message was displayed and why?
5. Insert a screenshot.

Click or tap here to enter text.

1. Type **mv sample1 sample4** and press **Enter**.
2. Type **ls** and press **Enter**.
3. How many files are listed and what are their names? What happened to sample1?

Click or tap here to enter text.

1. Type **mv sample4 mysamples** and press **Enter**.
2. Type **ls** and press **Enter**.
3. How many files are there, and what are their names? Where did sample4 go?

Click or tap here to enter text.

1. Type **cd mysamples** and press **Enter**.
2. Type **ls** and press **Enter**. Notice that the sample4 file you moved earlier was moved here.
3. Type **mv sample4 ..** and press **Enter**.
4. Type **ls** and press **Enter**.
5. How many files are there, and what are their names? Where did the sample4 file go?

Click or tap here to enter text.

1. Type **cd ..** and press **Enter**.
2. Type **ls** and press **Enter** to view the new location of sample4.
3. Type **mv sample4 mysamples/sample2** and press **Enter**.
4. Type **mv sample? mysamples** and press **Enter**.
5. Type **ls** and press **Enter**.
6. How many files are there and why?

Click or tap here to enter text.

1. Type **mv sample1\* mysamples** and press **Enter**.
2. Type **ls** and press **Enter**. Notice that there are no sample files in the /root directory.
3. Type **cd mysamples** and press **Enter**.
4. Type **ls** and press **Enter**. Notice that all files originally in /root have been moved to this directory.
5. Type **cd ..** and press **Enter**.
6. Type **ls** and press **Enter**. Notice the files and directories shown.
7. Type **mv mysamples samples** and press **Enter**.
8. Type **ls** and press **Enter**.
9. Why did you not need to specify the recursive option to the **mv** command to rename the **mysamples** directory to **samples**?

Click or tap here to enter text.

1. Insert a screenshot.

Click or tap here to enter text.

# Project 4-6: Remove Files and Directories

Time required: 20 minutes

In this hands-on project, you delete files and directories using the **rmdir** and **rm** commands.

1. Log in to Kali with user. Open a terminal.
2. Type **cd samples** and press **Enter**.
3. Type **ls -R** and press **Enter**. Note there two empty directories todelete and undermysamples.
4. Type **rmdir undermysamples todelete** and press **Enter**.
5. Did the command work? Why?

Click or tap here to enter text.

1. Type **ls** and press **Enter**.
2. Were both directories deleted successfully?

Click or tap here to enter text.

1. Type **rm sample1\*** and press **Enter**.
2. What message is displayed? Answer **n** to all three questions.

Click or tap here to enter text.

1. Type **rm -f sample1\*** and press **Enter**.
2. Why were you not prompted to continue?

Click or tap here to enter text.

1. Type **ls** and press **Enter**.
2. Were all three files deleted successfully?

Click or tap here to enter text.

1. Type **cd ..** and press **Enter**.
2. Type **rmdir samples** and press **Enter**.
3. What error message do you receive and why?

Click or tap here to enter text.

1. type **rm -Rf samples** and press **Enter**. **-R** is the recursive switch, **f** is force.
2. Type **ls** and press **Enter**.
3. Was the samples directory and all files within it deleted successfully?

Click or tap here to enter text.

## Assignment Submission

Attach this completed document to the assignment in Blackboard.