# Working with Files and Directories

Note

In the previous two labs, you were provided basic info with the regards to Linux and your current sessions. From here on, you will be on a minor adventure that will combine all previous knowledge to solidify and reinforce your capabilities. Referencing your previous labs will assist you in completion of each of the remaining labs.

# Scenario

You have accepted an additional role at your current company. In this role, you have agreed to reconfigure a Linux machine for executive use. It will require adding in specific starting files and folders and some cleanup of older data from this machine so it can be repurposed properly.

# Objectives

In this lab, you will:

* Create folder structure provided, with template file names provided
* Clean erroneous data from file system
* Create a file

## Exercise 1: Create a Folder Structure

Your first task is to create a specific folder structure with premade files. A picture of the files and folders is provided, and you are instructed to recreate the structure in the new machine.

### TODO

1. Using the terminal, recreate the below structure on the Linux machine.

Note

When you build your folder structure, replace user with your own username (labsuser).

(Example: **/home/labsuser/companyA**)

/home/labsuser/companyA/

/home/labsuser/companyA/Documents/

/home/labsuser/companyA/SharedFolders/

/home/labsuser/companyA/HR/

/home/labsuser/companyA/HR/Finance/

/home/labsuser/companyA/HR/Finance/Hourly.csv

/home/labsuser/companyA/HR/Finance/IncomeGeneration.csv

/home/labsuser/companyA/HR/Finance/ProfitAndLossStatements.csv

/home/labsuser/companyA/HR/Finance/Salary.csv

/home/labsuser/companyA/HR/NewHires/

/home/labsuser/companyA/HR/NewHires/Assessments.csv

/home/labsuser/companyA/HR/NewHires/TrialPeriod.csv

/home/labsuser/companyA/HR/Employees/

/home/labsuser/companyA/HR/Employees/MonthlyAssessments.csv

/home/labsuser/companyA/HR/Employees/YearlyAssessments.csv

/home/labsuser/companyA/HR/Employees/Layoffs.csv

/home/labsuser/companyA/HR/Management/

/home/labsuser/companyA/HR/Management/Managers.csv

/home/labsuser/companyA/HR/Management/Sections.csv

/home/labsuser/companyA/HR/Management/Profits.csv

/home/labsuser/companyA/HR/Management/Repairs.csv

/home/labsuser/companyA/HR/Management/Losses.csv

/home/labsuser/companyA/HR/Management/Orders.csv

/home/labsuser/companyA/HR/Management/Schedule.csv

/home/labsuser/companyA/Management/

/home/labsuser/companyA/Employees/

Helpful Hint

Use the ls and pwd commands after each step to validate that you have created the files correctly.

### Steps

1. Validate that you are in the home folder of your current user by typing **pwd** and pressing ENTER. (If you’re not in the home folder, type **cd**.)
2. In the terminal, type **sudomkdir companyA** and press ENTER to create the top-level folder.
3. Now you need to change directories by typing **cd companyA** and pressing ENTER.
4. Create all the sub folders by typing **sudo** **mkdir Documents SharedFolders HR Management Employees** and pressing ENTER.
5. Validate the folders were made by typing **ls** and pressing ENTER.

[labsuser@centos companyA]$ ls

Documents Employees HR Management SharedFolders

[labsuser@centos companyA]$

1. Change your current directory to the HR directory by typing **cd HR** and pressing ENTER.
2. Inside of the **HR** folder, create the new folders by typing **sudo** **mkdir Finance** **Management NewHires Employees** and pressing ENTER.
3. Change your current directory to **Finance** by typing **cd Finance** and pressing ENTER.
4. Create the empty files inside of the **Finance** folder by typing **sudo** **touch Hourly.csv** **Salary.csv IncomeGeneration.csv ProfitAndLossStatements.csv** and pressing ENTER.
5. Change directories back one level to the **HR** folder by typing **cd** **..** and pressing ENTER.
6. Change directories into the **NewHires** folder by typing **cd NewHires** and pressing ENTER.
7. Create the new empty files in the **NewHires** folder by typing **sudo** **touch TrialPeriod.csv Assessments.csv** and pressing ENTER.
8. Traverse directories back one level to the **HR** folder and then into the **Employees** folder by typing **cd ../Employees** and pressing ENTER.
9. Create the required files in the **Employees** folder by typing **sudo touch** **MonthlyAssessments.csv YearlyAssessments.csv Layoffs.csv** and pressing ENTER.
10. Change your directory back one level by typing **cd ..** and pressing ENTER.
11. Change your directory into the **Management** folder by typing **cd Management** and pressing ENTER.
12. Create the **Management** files by typing **sudo** **touch Managers.csv Sections.csv** **Profits.csv Repairs.csv Losses.csv Orders.csv Schedule.csv** and pressing ENTER.
13. Validate you have created the files by typing ls and pressing ENTER into the terminal.

[labsuser@centos Management]$ ls

Losses.csv Managers.csv Orders.csv Profits.csv Repairs.csv Schedule.csv Sections.csv

[labsuser@centos Management]$

1. Change your directory back one level to the **HR** folder by typing **cd ..** and pressing ENTER.
2. Validate all the files and folders from the HR folder down have been created by typing **ls -laR** and pressing ENTER.

[labsuser@centos HR]$ ls -laR

.:

total 24

drwxrwxr-x 6 labsuser labsuser 4096 Aug 24 20:25 .

drwxrwxr-x 7 labsuser labsuser 4096 Aug 24 20:25 ..

drwxrwxr-x 2 labsuser labsuser 4096 Aug 24 20:25 Employees

drwxrwxr-x 2 labsuser labsuser 4096 Aug 24 20:25 Finance

drwxrwxr-x 2 labsuser labsuser 4096 Aug 24 20:25 Management

drwxrwxr-x 2 labsuser labsuser 4096 Aug 24 20:25 NewHires

./Employees:

total 8

drwxrwxr-x 2 labsuser labsuser 4096 Aug 24 20:25 .

drwxrwxr-x 6 labsuser labsuser 4096 Aug 24 20:25 ..

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Layoffs.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 MonthlyAssessments.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 YearlyAssessments.csv

./Finance:

total 8

drwxrwxr-x 2 labsuser labsuser 4096 Aug 24 20:25 .

drwxrwxr-x 6 labsuser labsuser 4096 Aug 24 20:25 ..

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Hourly.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 IncomeGeneration.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 ProfitAndLossStatements.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Salary.csv

./Management:

total 8

drwxrwxr-x 2 labsuser labsuser 4096 Aug 24 20:25 .

drwxrwxr-x 6 labsuser labsuser 4096 Aug 24 20:25 ..

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Losses.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Managers.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Orders.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Profits.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Repairs.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Schedule.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Sections.csv

./NewHires:

total 8

drwxrwxr-x 2 labsuser labsuser 4096 Aug 24 20:25 .

drwxrwxr-x 6 labsuser labsuser 4096 Aug 24 20:25 ..

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 Assessments.csv

-rw-rw-r-- 1 labsuser labsuser 0 Aug 24 20:25 TrialPeriod.csv

[labsuser@centos HR]$

1. Change directories back to the **companyA** folder by typing **cd ..** and pressing ENTER.

## Exercise 2: Delete a Folder

Mr. X, your new project manager for this additional role, has walked up and asked that you take a look at the previous task and remove the **Documents** folder.

### TODO

1. Delete the **Documents** folder.

### Steps

1. Ensure you are in the appropriate **companyA** folder by typing **pwd** into the terminal and pressing ENTER.
2. Remove the **Documents** folder from the **companyA** folder structure by typing **sudo** **rmdir Documents** and pressing ENTER.

## Exercise 3: Create a File

Mr. X has one more additional task he wants you to take care of for him. He needs a file created in the company folder labeled **Roster.csv**.

### TODO

1. Create **Roster.csv** in the **companyA** folder.

### Steps

1. Using the touch command create a file in the **companyA** folder called **Roster.csv** by typing **sudo touch Roster.csv** and pressing ENTER into the terminal.
2. Validate you have created the file by typing ls and pressing ENTER.

[labsuser@centos companyA]$ touch Roster.csv

[labsuser@centos companyA]$ ls

Employees HR Management Roster.csv SharedFolders

[labsuser@centos companyA]$