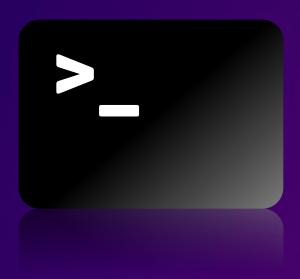


AWS Start

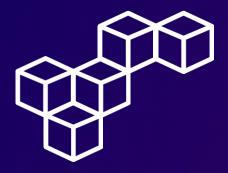
Working with the File System



WEEK 2







Overview

Managing files in Linux involves essential tasks such as navigating directories, organizing data, and performing file operations. Users can easily move through directories to access specific locations and view the contents within them. Organizing information is simplified through the creation of directories and the addition of files to these directories, enabling users to structure their data effectively.

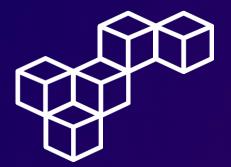
File operations like renaming, relocating, copying, and deleting files are integral to maintaining an organized file system. These actions allow users to manage their data efficiently, ensuring that files are properly labeled, stored in relevant locations, and backed up as needed. By mastering these file system tasks, users can streamline their workflow and ensure a well-organized file structure in their Linux environment.

Note: This lab was made using Windows Subsystem for Linux.

Topics covered

- Create a folder structure that this lab provides
- Create files
- Copy and move files and directories
- Delete files and directories





Use SSH to connect to an Amazon Linux EC2 instance

Initial Preparations

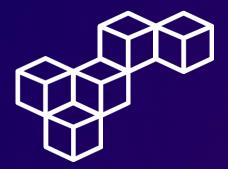
In the AWS Management Console, select the EC2 instance and make note of the **Public IPv4 address**.

Download the private key file **labsuser.pem**. Change to the Downloads directory and modify the permissions on the key to be read-only (r-----).

Connect to the instance using SSH

Establish a connection to the EC2 instance using the ssh command, the key and the instance's public IPv4 address.

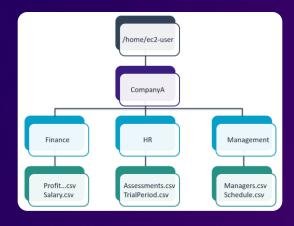




Create a Folder Structure

Task

In this task, you recreate the provided folder structure:

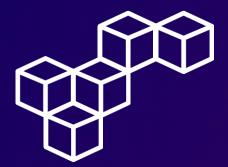


Step 1: Create the directories

Create the CompanyA directory and all the sub folders using the mkdir command.

```
[ec2-user@ip-10-0-10-106 ~]$ pwd
/home/ec2-user
[ec2-user@ip-10-0-10-106 ~]$ mkdir CompanyA
[ec2-user@ip-10-0-10-106 ~]$ cd CompanyA
[ec2-user@ip-10-0-10-106 CompanyA]$ mkdir Finance HR Management
[ec2-user@ip-10-0-10-106 CompanyA]$ ls
Finance HR Management
[ec2-user@ip-10-0-10-106 CompanyA]$
```





Create a Folder Structure

Step 2: Create the files

Generate the CSV files within their corresponding directories using the touch command.

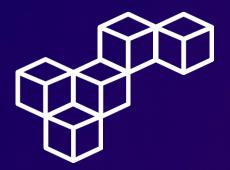
```
[ec2-user@ip-10-0-10-106 CompanyA]$ cd HR
[ec2-user@ip-10-0-10-106 HR]$ touch Assessments.csv TrialPeriod.csv
[ec2-user@ip-10-0-10-106 HR]$ touch Assessments.csv TrialPeriod.csv
[ec2-user@ip-10-0-10-106 HR]$ cd ../Finance
[ec2-user@ip-10-0-10-106 HR]$ cd ../Finance
[ec2-user@ip-10-0-10-106 Finance]$ touch Salary.csv ProfitAndLossStatements.csv
[ec2-user@ip-10-0-10-106 Finance]$ ls
ProfitAndLossStatements.csv Salary.csv
[ec2-user@ip-10-0-10-106 Finance]$ cd ..
[ec2-user@ip-10-0-10-106 CompanyA]$ touch Management/Managers.csv Management/Schedule.csv
[ec2-user@ip-10-0-10-106 CompanyA]$ ls Management
Managers.csv Schedule.csv
[ec2-user@ip-10-0-10-106 CompanyA]$
```

Step 3: Validate the folder structure

To validate that all the files and folders from the CompanyA folder down have been created, enter the command ls—laR.

```
[ec2-user@ip-10-0-10-106 CompanyA]$ ls -laR
.:
total 0
drwxrwxr-x 5 ec2-user ec2-user 49 Apr 8 04:34 .
drwxrwxr-x 2 ec2-user ec2-user 59 Apr 8 04:35 Finance
drwxrwxr-x 2 ec2-user ec2-user 52 Apr 8 04:35 HR
drwxrwxr-x 2 ec2-user ec2-user 59 Apr 8 04:35 HR
drwxrwxr-x 2 ec2-user ec2-user 46 Apr 8 04:35 HR
drwxrwxr-x 2 ec2-user ec2-user 59 Apr 8 04:35 HR
drwxrwxr-x 5 ec2-user ec2-user 49 Apr 8 04:35 .
drwxrwxr-x 5 ec2-user ec2-user 49 Apr 8 04:35 Salary.csv
./HR:
total 0
drwxrwxr-x 1 ec2-user ec2-user 0 Apr 8 04:35 Salary.csv
./HR:
total 0
drwxrwxr-x 5 ec2-user ec2-user 49 Apr 8 04:35 Assessments.csv
-rw-rw-r-- 1 ec2-user ec2-user 0 Apr 8 04:35 TrialPeriod.csv
./Management:
total 0
drwxrwxr-x 2 ec2-user ec2-user 0 Apr 8 04:35 TrialPeriod.csv
./Management:
total 0
drwxrwxr-x 5 ec2-user ec2-user 46 Apr 8 04:36 Managers.csv
./Management:
total 0
drwxrwxr-x 1 ec2-user ec2-user 49 Apr 8 04:36 Managers.csv
./Management:
total 0
drwxrwxr-x 1 ec2-user ec2-user 49 Apr 8 04:36 Managers.csv
./Management:
total 0
drwxrwxr-x 1 ec2-user ec2-user 0 Apr 8 04:36 Managers.csv
./Management:
total 0
drwxrwxr-x 1 ec2-user ec2-user 0 Apr 8 04:36 Managers.csv
./Management:
total 0
drwxrwxr-x 1 ec2-user ec2-user 0 Apr 8 04:36 Schedule.csv
[ec2-user@ip-10-0-10-106 CompanyA]$
```

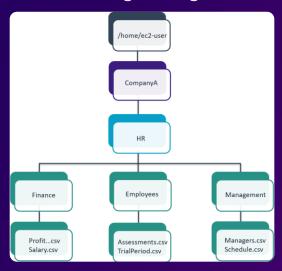




Delete and reorganize folders

Task

Now, you are tasked with reorganizing the content as follows:



Step 1: Copy the Finance folder

Copy the Finance folder and its content to the HR folder, and remove the previous Finance folder.

```
[ec2-user@ip-10-0-10-106 CompanyA]$ pwd
/home/ec2-user/CompanyA
[ec2-user@ip-10-0-10-106 CompanyA]$ cp -r Finance HR
[ec2-user@ip-10-0-10-106 CompanyA]$ ls HR/Finance
ProfitAndLossStatements.csv Salary.csv
[ec2-user@ip-10-0-10-106 CompanyA]$ rmdir Finance
rmdir: failed to remove 'Finance': Directory not empty
[ec2-user@ip-10-0-10-106 CompanyA]$ rm Finance/ProfitAndLossStatements.csv Finance/Salary.csv
[ec2-user@ip-10-0-10-106 CompanyA]$ rm Finance/ProfitAndLossStatements.csv Finance/Salary.csv
[ec2-user@ip-10-0-10-106 CompanyA]$ ls Finance
[ec2-user@ip-10-0-10-106 CompanyA]$ rmdir Finance
[ec2-user@ip-10-0-10-106 CompanyA]$ ls
HR Management
[ec2-user@ip-10-0-10-106 CompanyA]$
```





Delete and reorganize folders

Step 2: Move the Management folder

Move the Management folder inside the HR folder using the my command.

```
[ec2-user@ip-10-0-10-106 CompanyA]$ mv Management HR
[ec2-user@ip-10-0-10-106 CompanyA]$ ls . HR/Management
.:
HR
HR/Management:
Managers.csv Schedule.csv
[ec2-user@ip-10-0-10-106 CompanyA]$
```

Step 3: Create an Employees folder

Create an Employees folder inside the HR folder, and move the Assessments.csv and TrialPeriod.csv file inside the Employees folder.

```
[ec2-user@ip-10-0-10-106 CompanyA]$ cd HR
[ec2-user@ip-10-0-10-106 HR]$ mkdir Employees
[ec2-user@ip-10-0-10-106 HR]$ mv Assessments.csv TrialPeriod.csv Employees
[ec2-user@ip-10-0-10-106 HR]$ ls . Employees
.:
Employees Finance Management

Employees:
Assessments.csv TrialPeriod.csv
[ec2-user@ip-10-0-10-106 HR]$
```





The ls, pwd & cd commands

The ls, pwd, and cd commands are essential for navigating the Linux file system. These commands are fundamental for orienting oneself within the file structure and accessing specific locations efficiently.

The mkdir & touch commands

The mkdir and touch commands are crucial for creating and managing files and directories. These commands are key for structuring data and managing file organization effectively in Linux

The rm & rmdir commands

The rm and rmdir commands are used for deleting files and directories, helping maintain a clutter-free file system and freeing up storage space. These commands are important for managing data and resources efficiently.

The cp & mv commands

The cp and mv commands are essential for copying, moving, and managing files. These commands provide users with versatile tools for managing and organizing files effectively in a Linux environment.



aws re/start



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