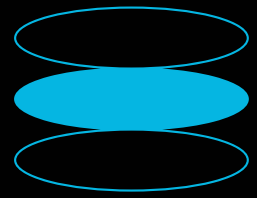


LINUX FUNDAMENTALS LABS SUMMARY 1 – 3



Linux Fundamentals 1

Linux Fundamentals 1

What I Did: Learn CLI navigation, file creation, and text manipulation.

Commands & Concepts:

- `pwd` → show current directory
- `ls` → list files/folders
- `cd folder` → change directory
- `touch filename` → create empty file
- `echo "text" > filename` → create file with text
- `>>` → append text
- `cat filename` → view file contents
- `grep "text" /absolute/path/to/file` → search text

Skills:

- Navigate CLI
- Create and modify files
- Search text

Linux Fundamentals 2

Linux Fundamentals 2

What I Did: File permissions, user switching, reading logs, and file/folder management.

Commands & Concepts:

- `ls -l` → view file permissions (-rwxr-xr--)
- `chmod` → change permissions
- `chown` → change file owner
- `chgrp` → change file group
- `su username` → switch user
- `whoami` → check current user
- `cat /var/log/syslog` → system logs
- `sudo cat /var/log/auth.log` → authentication logs
- `touch filename` → create file
- `echo "text" > filename` → write text
- `mv file1 file2` → move/rename
- `rm file` → delete
- `ls -l folder1 folder2` → list multiple folders

Skills:

- Interpret permissions
- Switch users safely
- Read logs
- Manage files efficiently

Linux Fundamentals 3

Linux Fundamentals 3

What I Did: Process management, archiving/compression, and text tools.

Commands & Concepts:

Processes:

- kill <PID> → stop process
- jobs, fg, bg → manage background tasks

File Permissions:

- chmod, chown, chgrp, umask → control access

Archiving & Compression:

- gzip, gunzip, bzip2, → compress/decompress files

Text Tools:

- less, head, tail → view parts of files
- grep "text" file → search text
- find /path -name "*.txt" → locate files
- Redirection: > overwrite, >> append, < input

Skills:

- Manage processes
- Control file access
- Archive and compress data
- Analyze and manipulate text

Summary

Linux Fundamentals Summary

This repository documents my hands-on practice with Linux Fundamentals 1–3. I learned how to:

- **Navigate the Linux command line** efficiently and manage files and folders.
- **Read and modify file permissions** and safely switch users when required.
- **Inspect system logs** to monitor and troubleshoot Linux systems.
- **Manage processes** including background jobs, and stop or monitor running tasks.
- **Archive and compress files** for storage and transfer using tar, gzip, bzip2, and xz.
- **Search and manipulate text** using tools like grep, less, head, tail, find, and pipes/redirection.

```
tryhackme@linux1:~$ ls
access.log  folder1  folder2  folder3  folder4
tryhackme@linux1:~$ ls folder 4
ls: cannot access 'folder': No such file or directory
ls: cannot access '4': No such file or directory
tryhackme@linux1:~$ ls folder4
note.txt
tryhackme@linux1:~$ cat folder4/note.txt
Hello World!
tryhackme@linux1:~$ cd folder4
tryhackme@linux1:~/folder4$ pwd
/home/tryhackme/folder4
tryhackme@linux1:~/folder4$
```

```
tryhackme@linux1:~$ cd folder3
tryhackme@linux1:~/folder3$ ls -l
tryhackme@linux1:~/folder3$ echo "Hi Github Guy here showing off my files" > Guyreadme
tryhackme@linux1:~/folder3$ ls -l
Guyreadme
tryhackme@linux1:~/folder3$ cat Guyreadme
Hi Github Guy here showing off my files
tryhackme@linux1:~/folder3$ touch Guydontreadme.txt
tryhackme@linux1:~/folder3$ ls -l
Guydontreadme.txt
Guyreadme
tryhackme@linux1:~/folder3$ cat Guydontreadme.txt
tryhackme@linux1:~/folder3$
```

```
0 updates can be applied immediately.
tryhackme@linux1:~$ grep "THM" /home/tryhackme/access.log
13.127.130.212 - - [04/May/2021:08:35:26 +0000] "GET THM{ACCESS} lang=en HTTP/1.1" 404 360 "-" "Mozilla/5.0 (Windows NT
10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/77.0.3865.120 Safari/537.36"
tryhackme@linux1:~$
```

