Date:11-02-2025

LINUX FUNDEMENTALS

PROCEDURE

1. Log in to TryHackMe

Go to https://tryhackme.com, log in with your account, or sign up if you don't have one.

2. Search and Join the Room

In the search bar, type **"Linux Fundamentals"**. There are usually three parts:

- Linux Fundamentals Part 1 •   Linux Fundamentals Part 2
- Linux Fundamentals Part 3

    Click on the first one and click **"Join Room"**.

3. Start the Machine

Click **"Start Machine"** to get the target machine's IP address.

4. Connect to the TryHackMe Network Use either:

- **AttackBox (web-based terminal)** – just click to open it, already connected to THM's VPN.
- **Your own Kali/Linux VM with OpenVPN** – download the .ovpn file and connect using:

bash CopyEdit sudo openvpn

your-vpn-file.ovpn

5. Go Through Each Task

Each task explains a Linux concept. Carefully read and follow the instructions provided for each task, such as:

- Basic Linux commands
- File navigation and manipulation
- File permissions
- Package management
- Networking commands
- User and group management
- Services and processes

6. Use Linux Commands

Practice commands directly on the target machine, such as:

- ls, cd, cat, nano, touch
- chmod, chown, ps, kill
- apt, dpkg, top, netstat, ping
- adduser, passwd, sudo
- grep, find, locate

7. Answer the Questions

Each task has a series of questions. Use the knowledge and command-line results to find and submit correct answers.

8. Mark the Room as Completed

Once all questions are answered correctly, the room will automatically be marked as **"Completed"**.

INTRO

Note: to actually become familiar with Linux, you need to be using it daily. Make sure you have it installed (whether that be as your host system, a dual reboot, or on a [virtual machine](#)). For pentesting, most people prefer to use [Kali](#).

The name "Linux" is actually an umbrella term for multiple OS's that are based on UNIX (another operating system). Thanks to UNIX being open-source, variants of Linux come in all shapes and sizes, suited best for what the system is being used for.

For example, Ubuntu & Debian are some of the more commonplace distributions of Linux because it is so extensible. I.e. you can run Ubuntu as a server (such as websites & web applications) or as a fullyfledged desktop. For this series, we're going to be using Ubuntu.

The first version of Linux was released in 1991.

Basic Commands

Some basic commands include pwd, ls, cd, and more.

I have listed commands and their usages in my Gitbook [here](#).

An Introduction To Shell Operators

Some shell operators include &, &&, >, and >>.

I have listed commands and their usages in my Gitbook [here](#).

TASKS

Task 2A Bit of Background on Linux

Research: What year was the first release of a Linux operating system?

1991	✓ Correct Answer

Task 3Interacting With Your First Linux Machine (In-Browser)

I've deployed my first Linux machine!

No answer needed	✓ Correct Answer

Task 4Running Your First few Commands

If we wanted to output the text "**TryHackMe**", what would our command be?

echo TryHackMe	✓ Correct Answer	♀ Hint

What is the username of who you're logged in as on your deployed Linux machine?

tryhackme	✓ Correct Answer	♀ Hint

Task 5 Interacting With the Filesystem!

Answer the questions below

On the Linux machine that you deploy, how many folders are there?

| 4 | ✓ Correct Answer |

Which directory contains a file?

| folder4 | ✓ Correct Answer | ♀ Hint |

What is the contents of this file?

| Hello World | ✓ Correct Answer |

Use the cd command to navigate to this file and find out the new current working directory. What is the path?

| /home/tryhackme/folder4 | ✓ Correct Answer |

Task 6 Searching for Files

Use grep on "access.log" to find the flag that has a prefix of "THM". What is the flag? **Note:** The "access.log" file is located in the "/home/tryhackme/" directory.
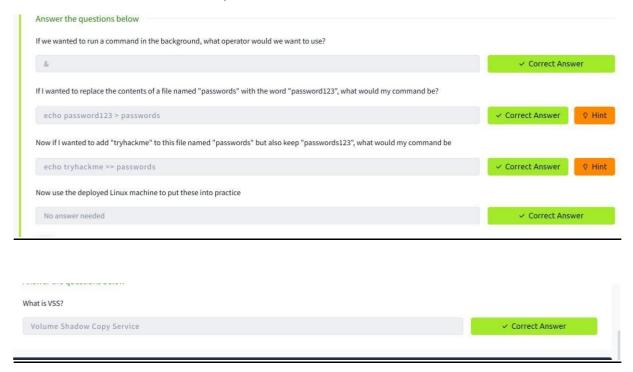
| THM{ACCESS} | ✓ Correct Answer | ♀ Hint |

And I still haven't found what I'm looking for!

| No answer needed | ✓ Correct Answer |

Task 7An Introduction to Shell Operators

Answer the questions below

If we wanted to run a command in the background, what operator would we want to use?

  &   ✓ Correct Answer

If I wanted to replace the contents of a file named "passwords" with the word "password123", what would my command be?

  echo password123 > passwords   ✓ Correct Answer ♀ Hint

Now if I wanted to add "tryhackme" to this file named "passwords" but also keep "passwords123", what would my command be

  echo tryhackme >> passwords   ✓ Correct Answer ♀ Hint

Now use the deployed Linux machine to put these into practice

  No answer needed   ✓ Correct Answer

Answer the questions below

What is VSS?

  Volume Shadow Copy Service   ✓ Correct Answer

RESULT

Thus the introduction to Linux fundementals has been sucessfully studied and implemented successfully