

LAPORAN

KUIS 1 – Mempelajari Linux Fundamentals Part 1 | TryHackMe

Disusun untuk memenuhi tugas mata kuliah keamanan sistem dan jaringan komputer



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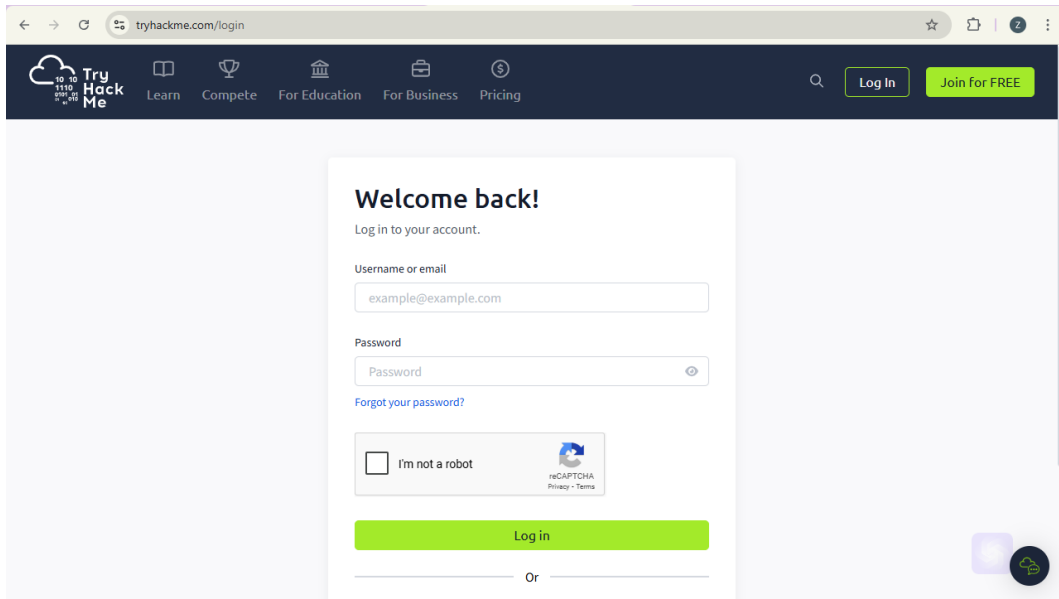
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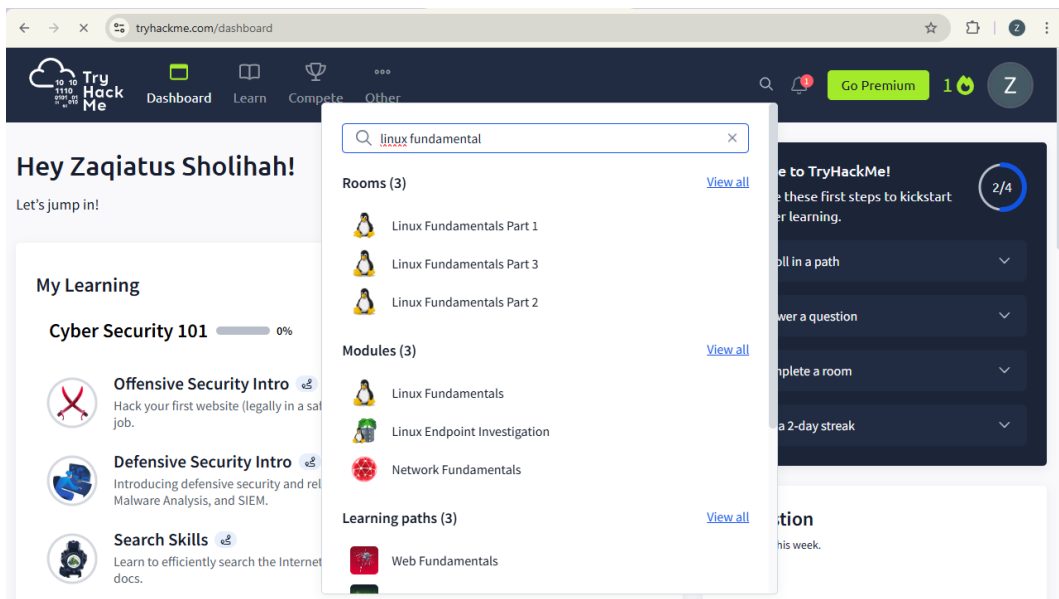
TEKNOLOGI INFORMASI
POLITEKNIK NEGERI MALANG
PSDKU LUMAJANG
2025

Task 1 - Introduction

1. Pertama, login terlebih dahulu menggunakan email atau akun google.




2. Selanjutnya, ketik linux fundamentals pada kolom pencarian dan pilih linux fundamentals part 1



3. Pada task 1 introduction, menjelaskan sejarah linux yang merupakan salah satu sistem operasi paling populer di dunia yang digunakan di berbagai perangkat. Kita akan belajar menjalankan perintah dasar, berinteraksi dengan sistem file, mencari file dan memahami operator shell.
Selanjutnya klik “completed” sebagai tanda selesai.

Task 1

Introduction



Welcome to the first part of the "Linux Fundamentals" room series. You're most likely using a Windows or Mac machine, both are different in visual design and how they operate. Just like Windows, iOS and MacOS, Linux is just another operating system and one of the most popular in the world powering smart cars, android devices, supercomputers, home appliances, enterprise servers, and more.

We'll be covering some of the history behind Linux and then eventually starting your journey of being a Linux-wizard! This room will have you:

- Running your very first commands in an interactive Linux machine in your browser
- Teaching you some essential commands used to interact with the file system
- Introduce you to how users and groups work on Linux (and what this means for us as penetration testers)

Let's get started!

No answer needed

Completed

Task 1 telah selesai

Task 1

Introduction

Lanjutkan langkah ini hingga room progress mencapai 100%

tryhackme.com/room/linuxfundamentalspart1

Room progress (5%)

Task 2 - A Bit of Background on Linux

- Selanjutnya beralih ke task 2, menjelaskan latar belakang linux dan sistem operasi linux yang bersifat open source. Kemudian terdapat pertanyaan, jika sudah diisi klik submit.

Task 2

A Bit of Background on Linux

Where is Linux Used?

It's fair to say that Linux is a lot more intimidating to approach than Operating System's (OSs) such as Windows. Both variants have their own advantages and disadvantages. For example, Linux is considerably much more lightweight and you'd be surprised to know that there's a good chance you've used Linux in some form or another every day! Linux powers things such as:

- Websites that you visit
- Car entertainment/control panels
- Point of Sale (PoS) systems such as checkout tills and registers in shops
- Critical infrastructures such as traffic light controllers or industrial sensors

Flavours of Linux

The name "Linux" is actually an umbrella term for multiple OS's that are based on UNIX (another operating system). Thanks to Linux 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 fully-fledged desktop. For this series, we're going to be using Ubuntu.

Note: Ubuntu Server can run on systems with only 512MB of RAM!

Similar to how you have different versions Windows (7, 8 and 10), there are many different versions/distributions of Linux.

Answer the questions below

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

Submit

Answer the questions below

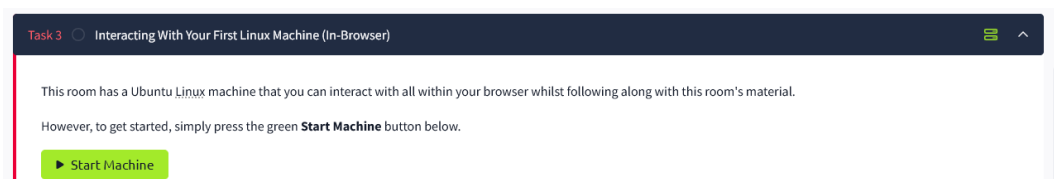
Research: What year was the first release of a Linux operating system?

1991

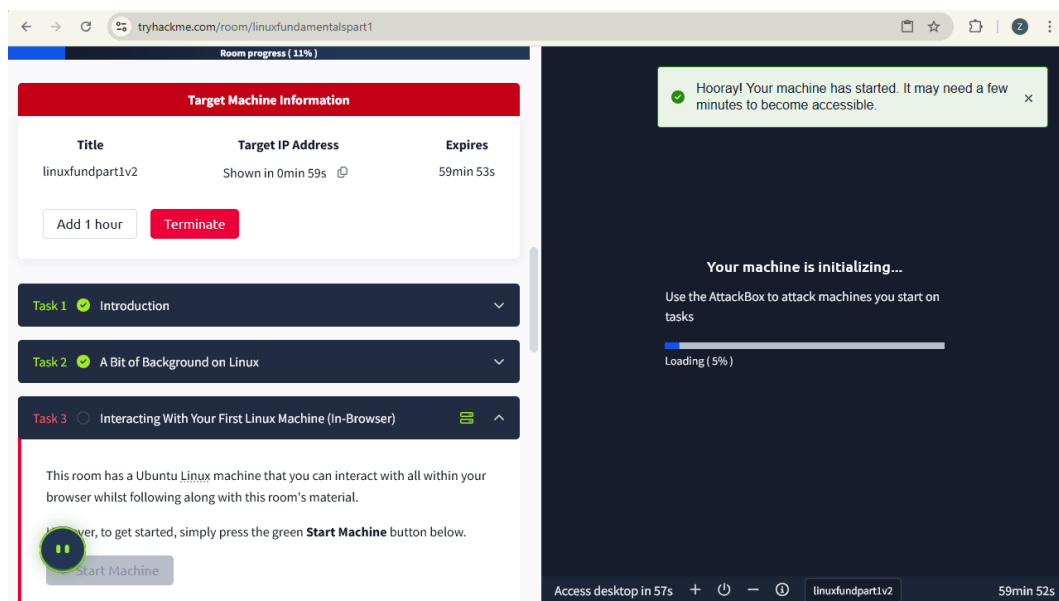
✓ Correct Answer

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

5. Kemudian beralih ke task 3 berinteraksi dengan mesin linux, mari kita lanjutkan untuk menekan tombol hijau “Start Machine”



Dan kita akan mulai memuat, dapat dilihat gambar dibawah ini berisi informasi termasuk alamat IP dan timer kadaluarsa.

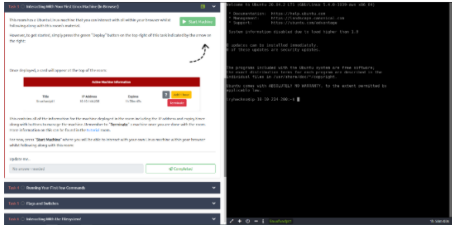


Dan ketika muncul pop-up pada terminal seperti dibawah ini mari kita lanjutkan dan klik “completed” sebagai tanda selesai.

Room progress (16%)

machine. Remember to **"Terminate"** a machine once you are done with the room. More information on this can be found in the [tutorial](#) room.

For now, press **"Start Machine"** where you will be able to interact with your own Linux machine within your browser whilst following along with this room:



Answer the questions below

I've deployed my first Linux machine!

Correct Answer

```

Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-1064-aws x86_64)

 * Documentation:  https://help.ubuntu.com
 * Management:    https://landscape.canonical.com
 * Support:        https://ubuntu.com/pro

System information as of Mon Mar 17 11:44:44 UTC 2025

System load:  0.57              Processes:    117
Usage of /:   27.8% of 9.62GB   Users logged in: 0
Memory usage: 39%              IPv4 address for ens5: 10.10.100.35
Swap usage:   0%

 * Ubuntu Pro delivers the most comprehensive open source security and compliance features.

https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update

tryhackme@linux1:~$

```

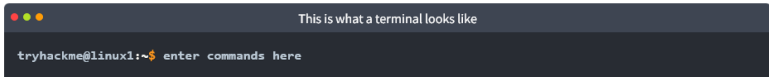
Task 4 - Running Your First few Commands

- Kemudian kita lanjutkan pada task 4,

Task 4
Running Your First few Commands

As we previously discussed, a large selling point of using OSs such as Ubuntu is how lightweight they can be. This, of course, doesn't come without its disadvantages, where for example, often there is no GUI (Graphical User Interface) or what is also known as a desktop environment that we can use to interact with the machine (unless it has been installed). A large part of interacting with these systems is using the "Terminal".

The "Terminal" is purely text-based and is intimidating at first. However, if we break down some of the commands, after some time, you quickly become familiar with using the terminal!



We need to be able to do basic functions like navigate to files, output their contents and make files! The commands to do so are self-explanatory (once you know what they are of course...)

Let's get started with two of the first commands which I have broken down in the table below:

Command	Description
echo	Output any text that we provide
whoami	Find out what user we're currently logged in as!

Selanjutnya ketika kita mencoba untuk mengetik echo "Hello Friend!" pada terminal maka akan muncul seperti dibawah ini.

Room progress (16%)

We need to be able to do basic functions like navigate to files, output their contents and make files! The commands to do so are self-explanatory (once you know what they are of course...)

Let's get started with two of the first commands which I have broken down in the table below:

Command	Description
echo	Output any text that we provide
whoami	Find out what user we're currently logged in as!

See the snippets below for an example of each command being used

Using echo

```
tryhackme@linux1:~$ echo "Hello Friend!"
```

Using whoami to find out the username of who we're logged in as

```
tryhackme@linux1:~$ whoami
```

Try this on your Linux machine now!

Answer the questions below

```
System load: 0.0      Processes: 104
Usage of /: 27.8% of 9.62GB   Users logged in: 0
Memory usage: 28%      IPv4 address for ens5: 10.10.237.16
Swap usage: 0%

* Ubuntu Pro delivers the most comprehensive open source security and compliance features.

https://ubuntu.com/aws/pro

Expanded Security Maintenance for Applications is not enabled.

0 updates can be applied immediately.

Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status

The list of available updates is more than a week old.
To check for new updates run: sudo apt update
Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

Last login: Mon Mar 17 12:04:42 2025 from 10.100.1.175
tryhackme@linux1:~$ echo "Hello Friend!"
Hello Friend!
tryhackme@linux1:~$
```

7. Jika, kita mengetik “whoami”, maka hasil nya akan muncul seperti dibawah ini. Kemudian terdapat pertanyaan, jika sudah diisi klik submit.

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

Answer the questions below

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

✓ Correct Answer

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

✓ Correct Answer

```
Last login: Mon Mar 17 12:04:42 2025 from 10.100.1.175
tryhackme@linux1:~$ echo "Hello Friend!"
Hello Friend!
tryhackme@linux1:~$ whoami
tryhackme
tryhackme@linux1:~$
```

Task 5 - Interacting With the Filesystem!

8. Kemudian kita lanjutkan dan beralih ke task 5 berinteraksi dengan sistem file, seperti menavigasi, membaca, dan menulis ke sistem file.

Dibawah ini pertanyaan pada task 5.

Answer the questions below

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

✓ Correct Answer

Which directory contains a file?

✓ Correct Answer

What is the contents of this file?

✓ Correct Answer

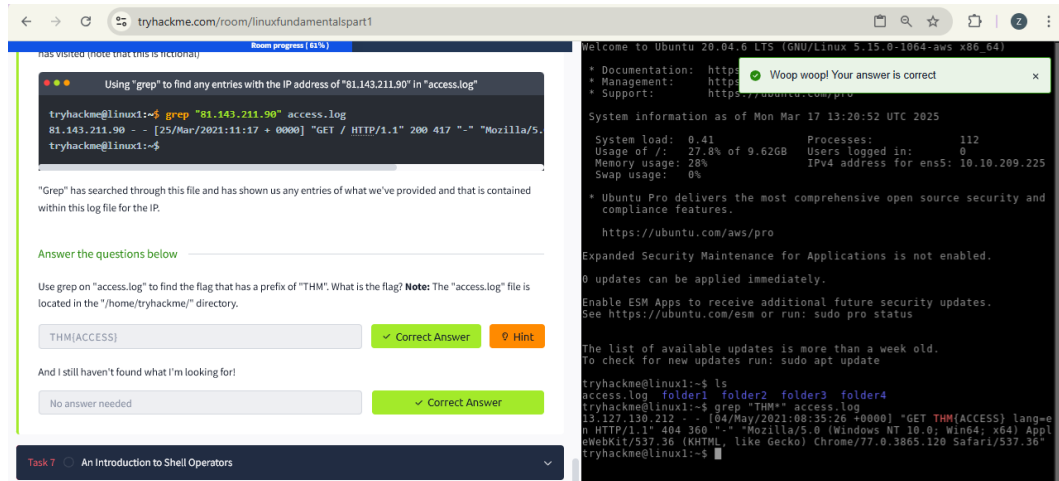
Use the cd command to navigate to this file and find out the new current working directory. What is the path?

✓ Correct Answer

Task 6 - Searching for Files

9. Selanjutnya kita beralih ke task 6, menjelaskan perintah-perintah dasar pada linux seperti find, yang mengotomatisasi pencarian tanpa perlu terus-menerus menggunakan cd dan ls.

Dibawah ini pertanyaan pada task 6.



Task 7 - An Introduction to Shell Operators

10. Selanjutnya kita pindah ke task 7, menjelaskan beberapa operator linux yang penting seperti: &, &&, >, >>

Perintah & : menjalankan perintah di latar belakang terminal,

Perintah && : menggabungkan beberapa perintah dalam satu baris terminal,

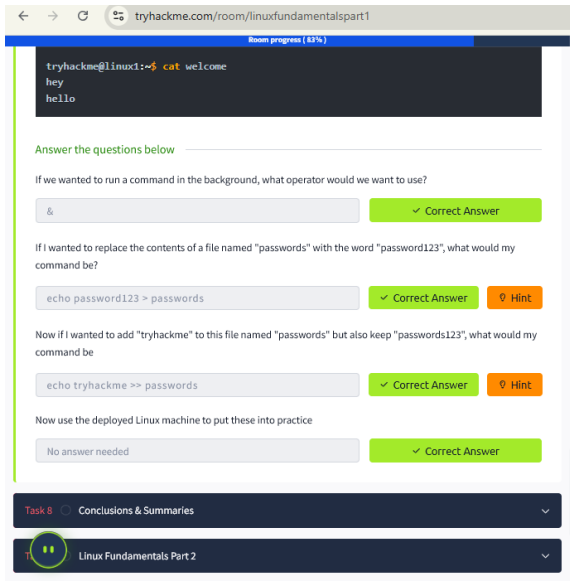
Perintah > : operator redirect yang mengalihkan output dari sebuah perintah ke tempat lain,

```
tryhackme@linux1:~$ echo hey > welcome
tryhackme@linux1:~$ cat welcome
hey
```

Perintah >> : sama seperti operator >, namun output akan ditambahkan ke file yang sudah ada tanpa menimpa isinya.

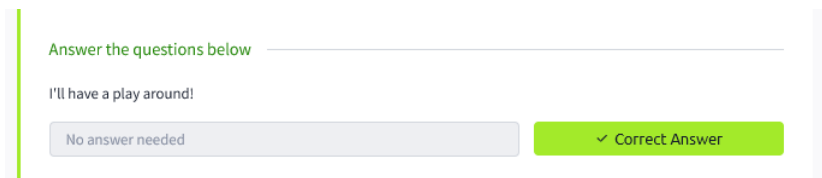
```
tryhackme@linux1:~$ echo hello >> welcome
tryhackme@linux1:~$ cat welcome
hey
hello
```

Dibawah ini pertanyaan pada task 7.



Task 8 - Conclusions & Summaries

11. Selanjutnya beralih ke task 8 kesimpulan dan ringkasan, sehingga kita dapat mengetahui alasan mengapa linux begitu banyak digunakan saat ini, berinteraksi dengan mesin linux pertama kali, menjalankan beberapa perintah, dan memahami cara menavigasi file sistem serta mempelajari operator shell. Kemudian klik “completed” sebagai tanda selesai.



12. Terakhir task 12 linux fundamentals part 2

