

LAPORAN TUGAS
PEMBELAJARAN TRYHACKME
“QUIZ 1”



Oleh:

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Dosen Pengajar:

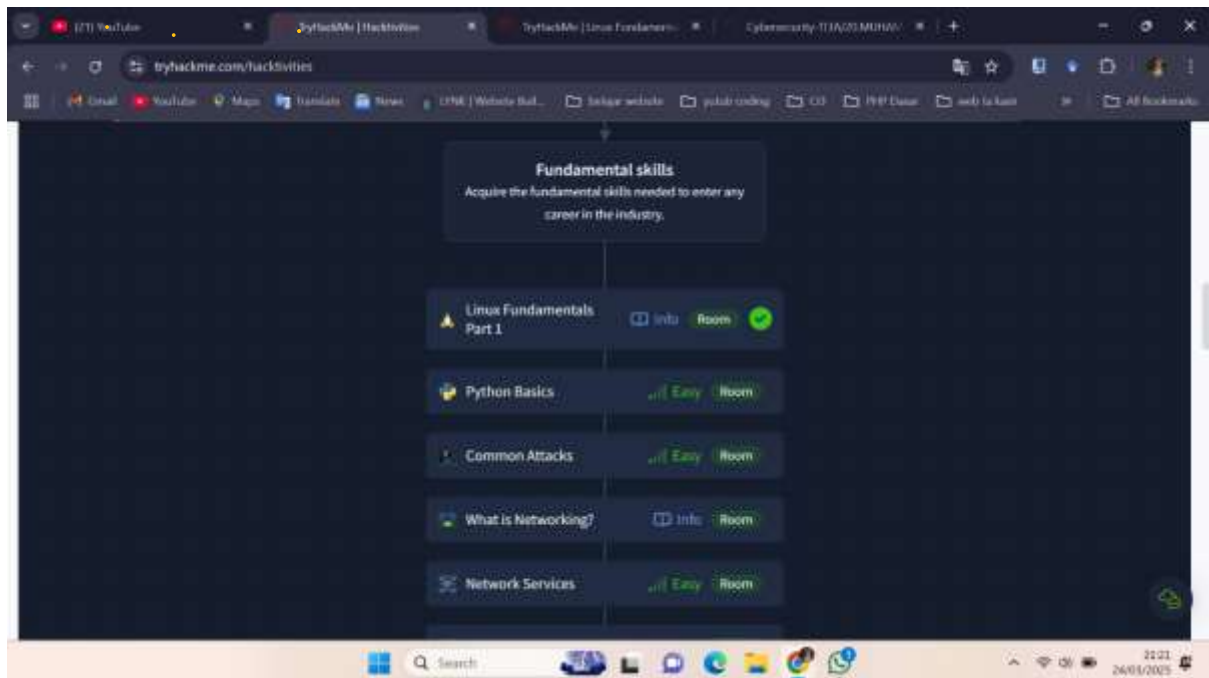
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PROGRAM STUDI D3 TEKNOLOGI INFORMASI
POLITEKNIK NEGERI MALANG PSDKU LUMAJANG
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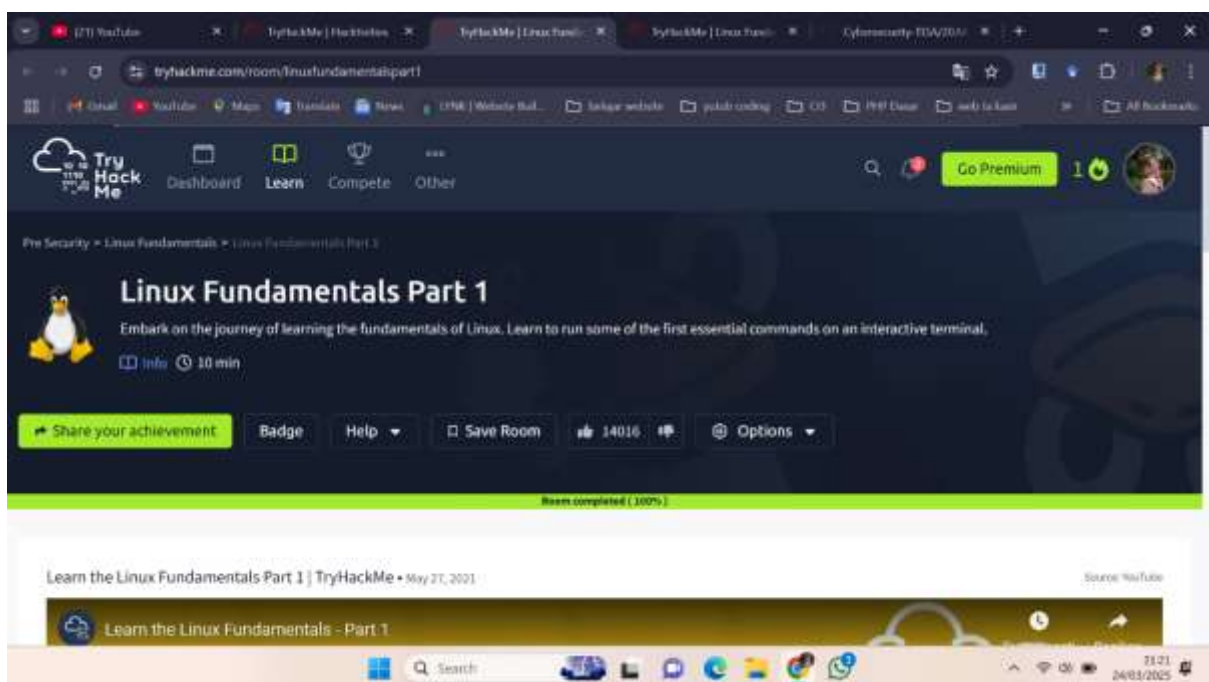
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- Pilihlah opsi “Free Roadmap” dan scroll ke bawah sampai ke Fundamental skills. Kemudian pilih Linux Fundamentals Part 1.

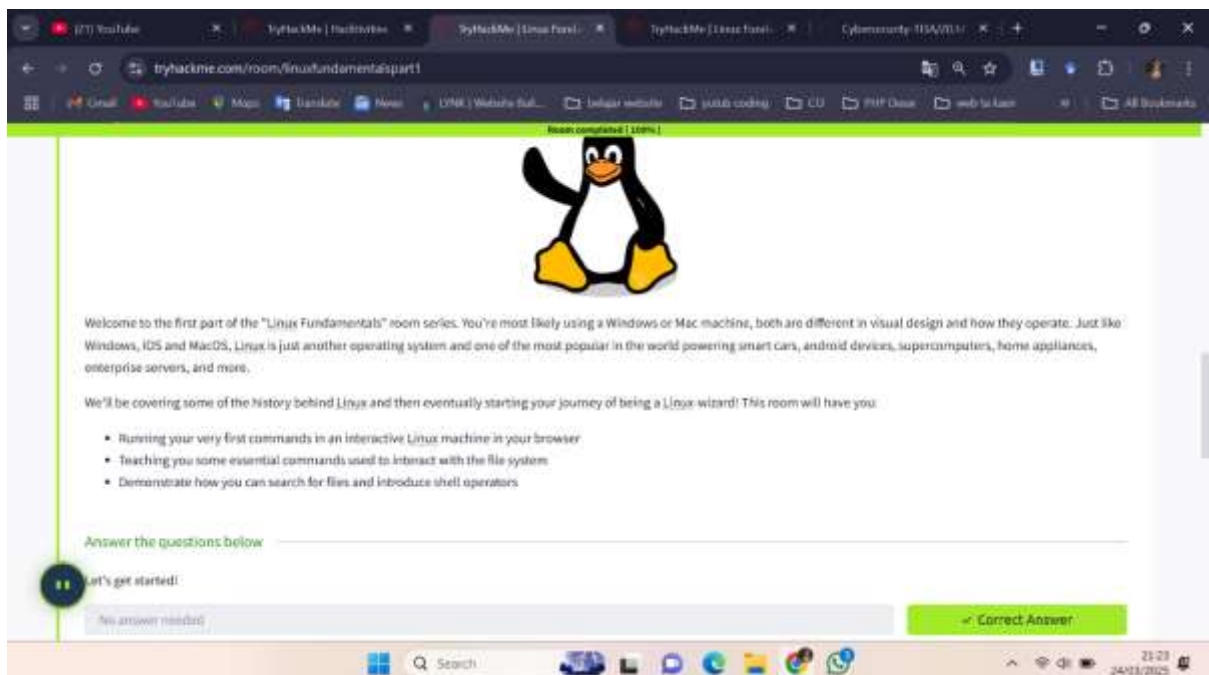


4. Selanjutnya kita akan diarahkan ke halaman berikut ini. Join room dan kerjakan tugas-tugas yang telah diberikan.





5. Task 1



6. Task 2

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 (OS) 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?

1980

1985

1989

1991

Correct Answer

7. Task 3

tryhackme.com/room/linuxfundamentalspart1

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!

This is what a terminal looks like

```
tryhackme@linux1:~$ enter commands here
```

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

whoami

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

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

echo "TryHackMe" Correct Answer

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

tryhackme Correct Answer 0 Hint

9. Task 5

Task 5 - Interacting With the Filesystem

So far we've only covered the "echo" and "whoami" commands. Not all that useful when you consider things that we need to do - including navigating the filesystem, read and write to it as well.

In this task, we're going to be learning the commands so that we can do just that. Just like the previous task, I'll display the commands in the table in the next heading & show examples of these commands being used.

Interacting With the Filesystem

As I previously stated, being able to navigate the machine that you are logged into without relying on a desktop environment is pretty important. After all, what's the point of logging in if we can't go anywhere?

Command	Full Name
ls	listing
cd	change directory
cat	concatenate
pwd	print working directory

2. I have used the "pwd" (print working directory) command to find the full file path of this "Documents" folder.

3. We're helpfully told by Linux that this "Documents" directory is stored at "/home/ubuntu/Documents" on the machine - great to know!

4. Now in the future, if we find ourselves in a different location, we can just use `cd /home/ubuntu/Documents` to change our working directory to this "Documents" directory.

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

10. Task 6

Task 6 Searching for Files

Although it doesn't seem like it so far, one of the redeeming features of Linux is truly how efficient you can be with it. With that said, you can only be as efficient as you are familiar with it. Of course, as you interact with OSs such as Ubuntu over time, essential commands like those we've already covered will start to become muscle memory.

One fantastic way to show just how efficient you can be with systems like this is using a set of commands to quickly search for files across the entire system that our user has access to. No need to consistently use `ls` and `ls -l` to find out what is where. Instead, we can use commands such as `find` to automate things like this for us!

This is where Linux starts to become a bit more intimidating to approach – but we'll break this down and ease you into it.

Using Find

The `find` command is fantastic in the sense that it can be used both very simply or rather complex depending upon what it is you want to do exactly. However, let's stick to the fundamentals first.

Take the snippet below; we can see a list of directories available to us:

```
tryhackme@linux1:~$ ls
Desktop Documents Pictures folder1
tryhackme@linux1:~$
```

Using "ls" to list the contents of the current directory

through 244 entries isn't all that efficient considering we want to find a specific value.

We can use `grep` to search the entire contents of this file for any entries of the value that we are searching for. Going with the example of a web server's access log, we want to see everything that the IP address "81.143.211.90" has visited (note that this is fictional)

```
tryhackme@linux1:~$ grep "81.143.211.90" access.log
81.143.211.90 - - [25/Mar/2021:11:17 + 0000] "GET / HTTP/1.1" 200 417 "-" "Mozilla/5.0 (Linux; Android 7.0; Moto G(4))"
tryhackme@linux1:~$
```

Using "grep" to find any entries with the IP address of "81.143.211.90" in "access.log"

"Grep" has searched through this file and has shown us any entries of what we've provided and that is contained within this log file for the IP.

Answer the questions below

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

11. Task 7

tryhackme.com/room/linuxfundamentalspart1

Task 7 - An Introduction to Shell Operators

Linux operators are a fantastic way to power up your knowledge of working with Linux. There are a few important operators that are worth noting. We'll cover the basics and break them down accordingly to bite-sized chunks.

At an overview, I'm going to be showcasing the following operators:

Symbol / Operator	Description
&	This operator allows you to run commands in the background of your terminal.
&&	This operator allows you to combine multiple commands together in one line of your terminal.
>	This operator is a redirector - meaning that we can take the output from a command (such as using cat to output a file) and direct it elsewhere.
>>	This operator does the same function of the > operator but appends the output rather than replacing (meaning nothing is overwritten).

Let's cover these in a bit more detail.

Operator "&"

This operator allows us to execute commands in the background. For example, let's say we want to copy a large file. This will obviously take quite a long time and will leave us unable to do anything else until the file successfully copies.

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

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?

✓ Correct Answer

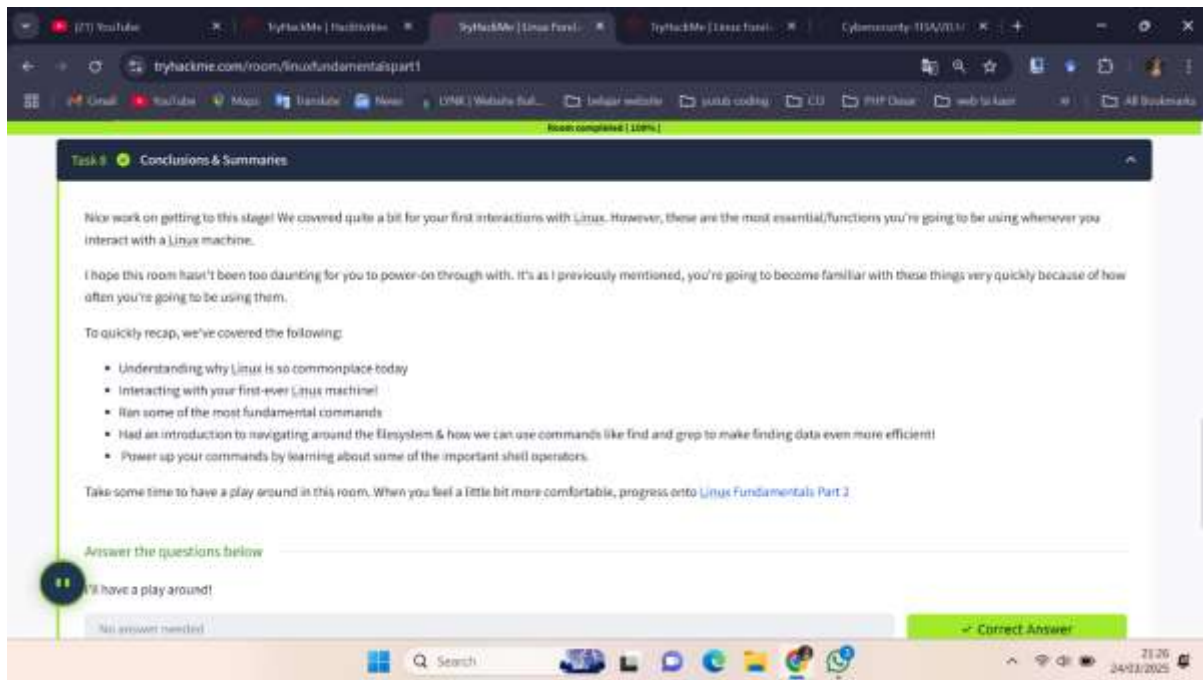
Now if I wanted to add "tryhackme" to this file named "passwords" but also keep "password123", what would my command be?

✓ Correct Answer

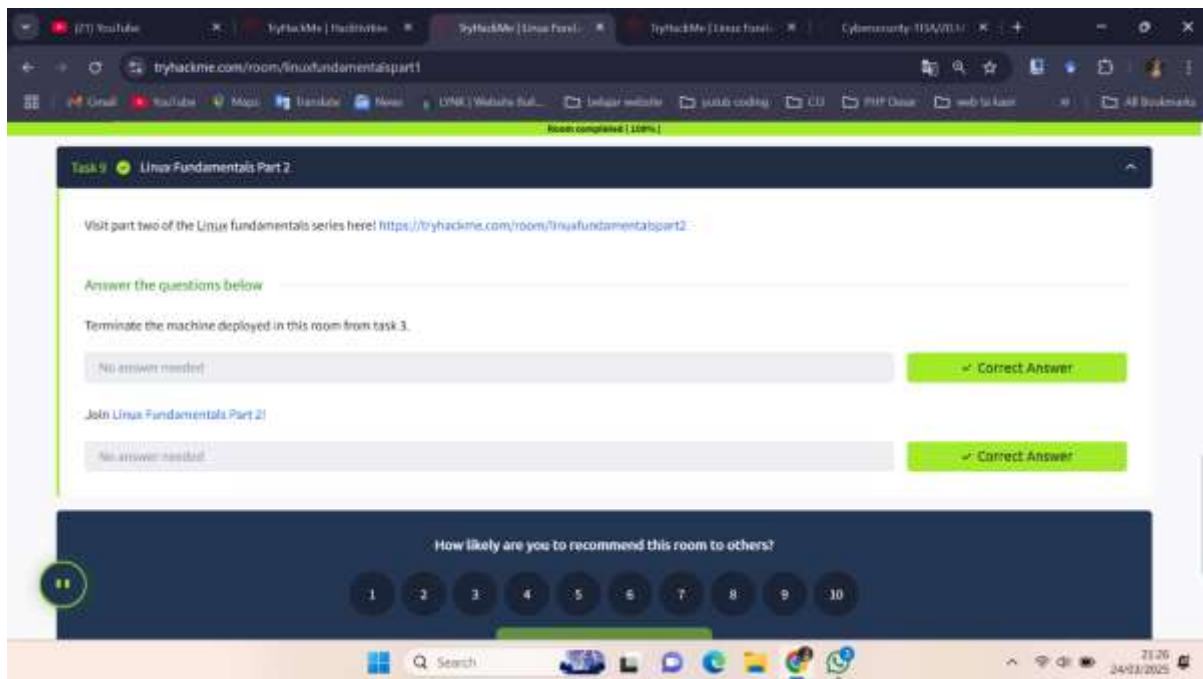
Now use the deployed Linux machine to put these into practice

✓ Correct Answer

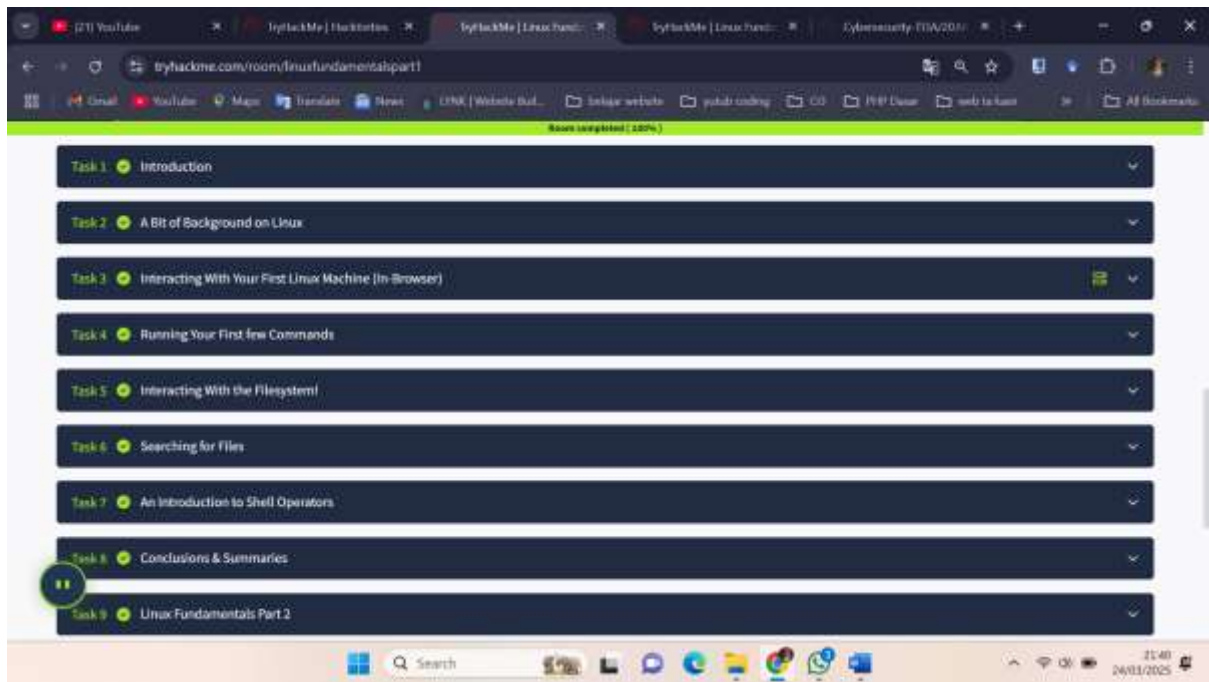
12. Task 8



13. Task 9



14. Kerjakan semua task hingga presentase menjadi 100% dan task otomatis tercentang



15. Jika semua task sudah dikerjakan maka akan tampil seperti berikut ini dan selesai

