

Getting started before session: Install wsl and termius in your local

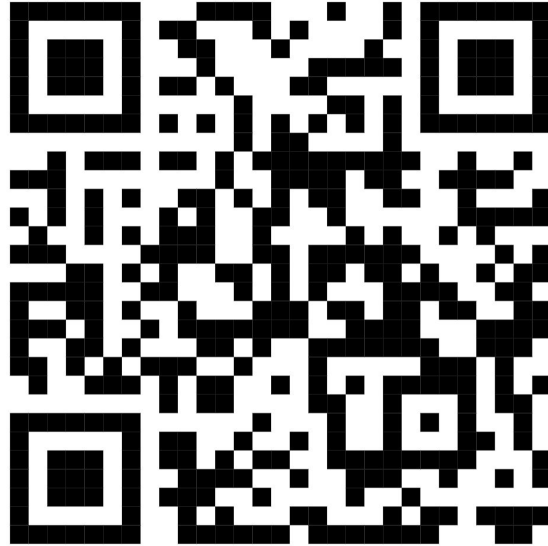


<https://taufiqpsumarna.my.id/blog/2024/12/14/seamless-development-on-windows-11-with-wsl-23-and-ubuntu-24041-lts/>

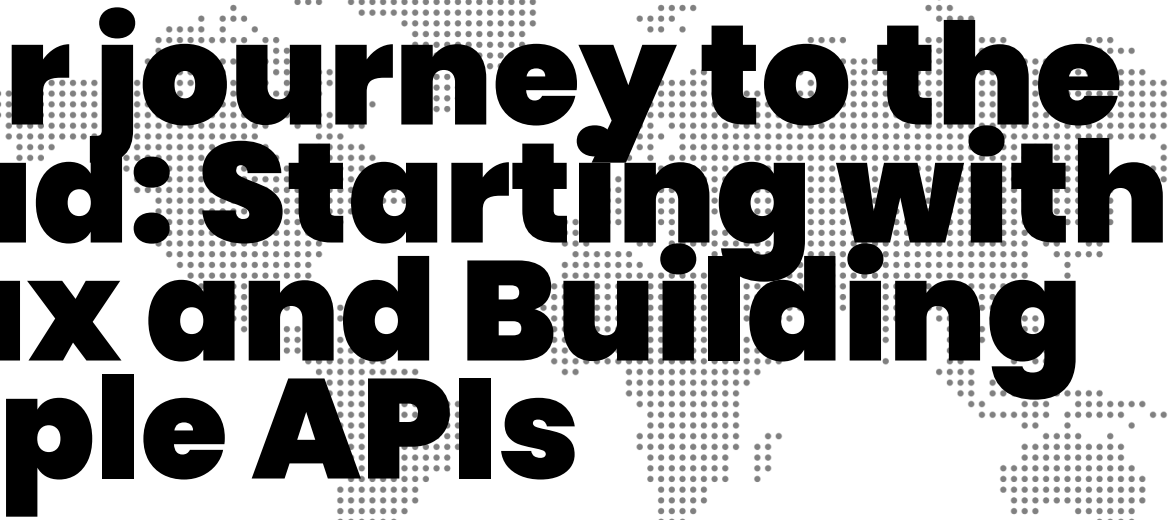


<https://termius.com/download/windows>

Getting started before session: credential for our workshop



<https://docs.google.com/document/d/1z1qWZg84Tti8e36GML4IizA1rCrsqeMHftxtRy4X2s8/edit?tab=t.0>



Your journey to the cloud: Starting with Linux and Building Simple APIs



Ni Putu Sintia Wati
sintia@zero-one-group.com

Ni Putu Sintia Wati

- Infrastructure Engineer at Zero One Group
- Cloud Computing Mentor at Bangkit Academy 2023
- Cloud Computing Graduate at Bangkit Academy 2022
- Informatics Graduate at Udayana University

Connect or More:

<https://linktr.ee/putusintia>





TODAY'S PLAN

01

What is Linux? Why is so Important in your Cloud Journey?

02

Exploring Linux CLI based in hand-on-labs

03

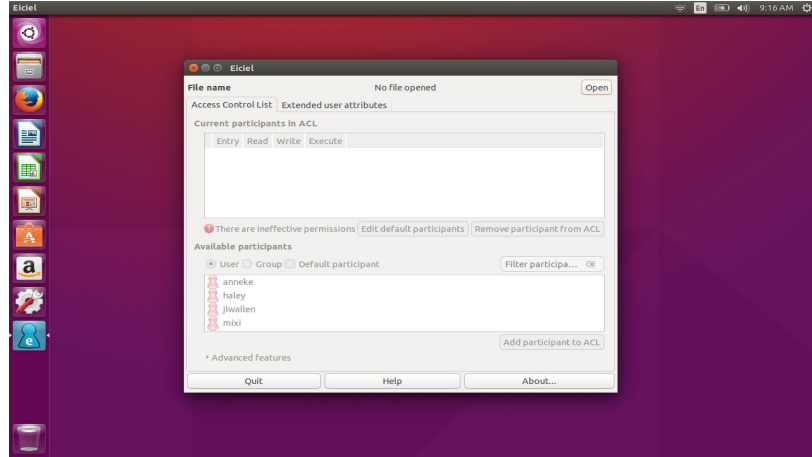
Build and running simple APIs in Linux

What is Linux? Why is so important in your Cloud Journey?

Linux is ...

Linux is an **open-source** operating system kernel that serves as the foundation for a wide range of operating systems. It was developed by Linus Torvalds in 1991. Since then it has evolved into one of the most powerful OS available. [\[1\]](#)

If you're familiar with other operating systems, interacting with Linux will feel similar ...



```
lasagna
├── HELP.md
├── HINTS.md
├── README.md
├── go.mod
├── lasagna.go
├── lasagna_test.go
├── party_robot
│   ├── HELP.md
│   ├── HINTS.md
│   ├── README.md
│   ├── go.mod
│   ├── party_robot.go
│   └── party_robot_test.go
├── weather_forecast
│   ├── HELP.md
│   ├── HINTS.md
│   ├── README.md
│   ├── go.mod
│   └── weather_forecast.go
└── weather_forecast_test.go

8 directories, 35 files
sinsin@SINTIAWATI:~/exercism$ locate
Command 'locate' not found, but can be installed with:
sudo apt install plocate
sinsin@SINTIAWATI:~/exercism$ ps
  PID TTY          TIME CMD
  468 pts/0    00:00:00 zsh
  743 pts/0    00:00:00 bash
  879 pts/0    00:00:00 ps
sinsin@SINTIAWATI:~/exercism$
```

Linux Important in your Cloud Journey because . . .

- Wide Adoption in Cloud Infrastructure
- DevOps and Automation
- Compatibility with Cloud-Native Technologies
- Versatility Across Use Cases
- Industry Standards

Linux Roadmap

Step by step guide to learning Linux in 2024

Roadmap

Projects **new**

Suggest Changes

0% DONE 0 of 103 Done

Share Progress Track Progress

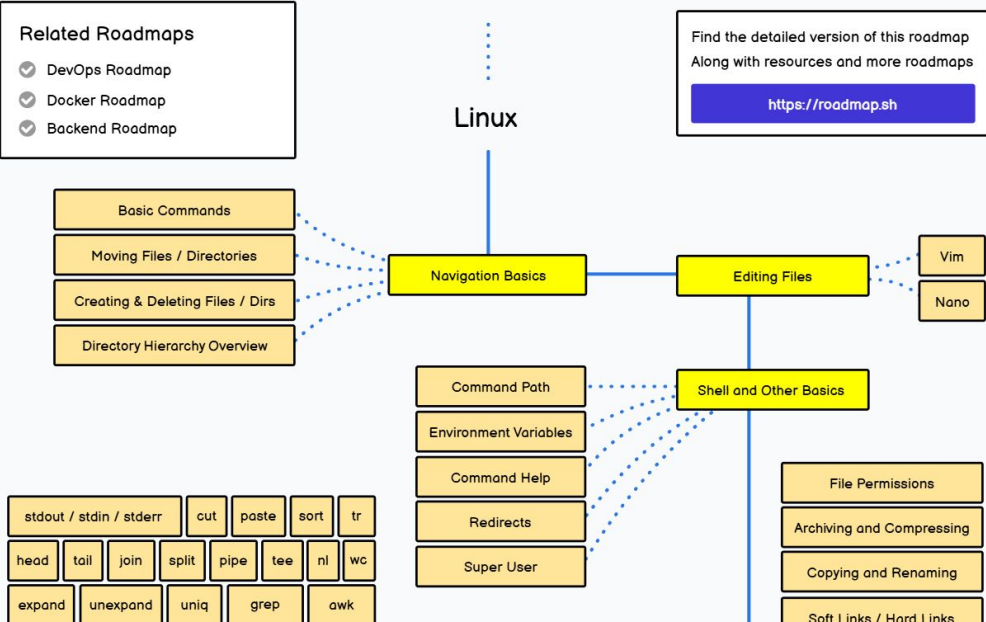
Related Roadmaps

- ✓ DevOps Roadmap
- ✓ Docker Roadmap
- ✓ Backend Roadmap



Find the detailed version of this roadmap
Along with resources and more roadmaps

<https://roadmap.sh>



<https://roadmap.sh/linux>

Exploring Linux CLI based in hand-on-labs

Before we started...

We will setup a linux environment

**Option:
Remote SSH or WSL**

- Hosts
- Keychain
- Port Forwarding
- Snippets
- Known Hosts
- History

Find a host or ssh user@hostname... CONNECT

NEW HOST TERMINAL SERIAL N +

Hosts

-  **pantau-dev**
ssh, telnet, ubuntu
-  **hilogate**
ssh, ubuntu
-  **pocer-shop-pwa**
ssh, ubuntu
-  **pantau-new-instance**
ssh, ubuntu

- Hosts
- Keychain
- Port Forwarding
- Snippets
- Known Hosts
- History

Find a host or ssh user@hostname... CONNECT

NEW HOST TERMINAL SERIAL

Hosts

- 34.50.68.83**
ssh, sintias
- pocor-shop-pwa**
ssh, ubuntu
- pantau-dev**
ssh, telnet, ubuntu
- pantau-new-instance**
ssh, ubuntu
- hilogate**
ssh, ubuntu

New Host Personal vault

Address

General

Label

Parent Group

Tags

Backspace

Share this host

SSH on port

Credentials from Personal vault

Connect



Vaults

SFTP

34.50.68.83



34.50.68.83
SSH 34.50.68.83:22

Show logs



Type RSA
Type RSA



Type ED25519
Type ED25519



Type ED25519
Type ED25519



Type RSA
Type RSA



Type RSA
Type RSA

Close





Continue & Save




 **34.50.68.83** SSH 34.50.68.83:22 Show logs



 **Type RSA**
Type RSA

 **Type ED25519**
Type ED25519

 **Type ED25519**
Type ED25519

 **Type RSA**
Type RSA

 **Type RSA**
Type RSA

Close Add key Continue & Save ⌵

New Key Save
Personal vault

Label

Private key *

```
-----BEGIN PRIVATE KEY-----  
MIIEvQIBADANBgkqhkiG9w0BAQEFAASCBKcwggSjAgEAAoIBAQC...  
-----END PRIVATE KEY-----
```

Certificate ⓘ

Welcome to Ubuntu 24.04.1 LTS (GNU/Linux 6.8.0-1017-gcp x86_64)

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

System information as of Tue Dec 17 10:33:49 UTC 2024

System load:	0.0	Processes:	108
Usage of /:	23.3% of 8.65GB	Users logged in:	0
Memory usage:	22%	IPv4 address for ens4:	10.184.0.2
Swap usage:	0%		

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`

Last login: Tue Dec 17 10:08:49 2024 from 103.172.18.66
sintias@trial-basic-linux:~\$

So.. Let's practice :DD

Directory Hierarchy

Command	Description
/	Root directory, the top level of the file system.
/home	User home directories
/bin	Essential binary executables
/sbin	System administration binaries
/etc	Configuration files
/var	Variable data (logs, spool files)
/usr	User programs and data
/lib	Shared libraries
/tmp	Temporary files

Files and Directories Management

Command	Description
pwd	Print work directory
ls	List file/directories
cd	Change directory
mkdir	Make directory
rmdir/rm	Remove directory/file
touch	creates an empty file
mv	Move directory/file

Files and Directories Management

Command	Description
cp	Copy file
cat	display file contents

So.. Let's practice :DD

Text Editor

**Option:
Nano or Vim**

Shell Scripting

A shell script is a computer program designed to be run by a Unix shell. It's a sequence of commands that the shell interprets and executes. Shell scripts are often used for automation, system administration, and other tasks.

shell.sh

A terminal window with a blue border and a dark background. The window title bar shows a minus sign, a square icon, and a close 'X' icon. The text inside the terminal is as follows:

```
#!/bin/bash  
  
# This is a comment  
echo "Hello, world!"  
date
```

Practice 1

- Make sure you are in the home user directory
- Create a new directory named **practice1**
- Inside that directory, create a text file named **practice1.txt** with the content "*this is practice 1*"
- Copy the file to **practice11.txt** and then replace the content with "*this is practice 11*"

Package management

On Linux, software is typically built as a package, distributed through repositories, and managed on the end-user's system through package managers.

Various of Package management

- APT (for debian and ubuntu)
- DNF (for RHEL/CentOS 8 and Fedora 22 or latest)
- YUM (for earlier ver of RHEL/CentOS and Fedora)

Common command for APT

Command	Description
<code>sudo apt update</code>	Updates the package lists
<code>sudo apt upgrade</code>	Upgrades all installed packages
<code>sudo apt install <package_name></code>	Installs a package
<code>sudo apt remove <package_name></code>	Removes a package
<code>sudo apt purge <package_name></code>	Removes a package and its configuration files

References:

[Intro to Linux Fundamentals](#)

[How to Manage User Permissions with the GUI in Linux](#)

[Basic Linux Commands](#)

[Linux File and Directory Operations](#)

[Linux Introduction to Linux](#)

[Ubuntu Package Management](#)

[Linux Package Management Overview](#)

[File System Hierarchy Standard \(FHS\)](#)

[Introduction to Linux Shell and Shell Scripting](#)

[Shell Scripting Basics](#)

Build and running simple APIs in Linux

pre-requires

- node.js
- pnpm
- Pm2
- Git

Practice 2



<https://gist.github.com/sintiasnn/a131fece41ab070d2db96eb1b73d9d25>

So.. Let's practice :DD

**THANK YOU FOR LISTENING
ANY QUESTIONS?**

Ni Putu Sintia Wati
sintia@zero-one-group.com



Slide:



https://docs.google.com/presentation/d/1dyW_GwqoMVIL6HDIZBNLSsjD6JsMF6eoHN2KYn4eSNdU/edit?usp=sharing

TITLE 4

SUB TITLE 4

