

**PRAKTIKUM BASIS DATA**  
**INSTALASI SOFTWARE MYSQL DAN XAMPP**

“Disusun Untuk Memenuhi Tugas Mata Kuliah Praktikum Basis Data”

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**PROGRAM STUDI TEKNIK INFORMATIKA**  
**INSTITUT TEKNOLOGI GARUT**

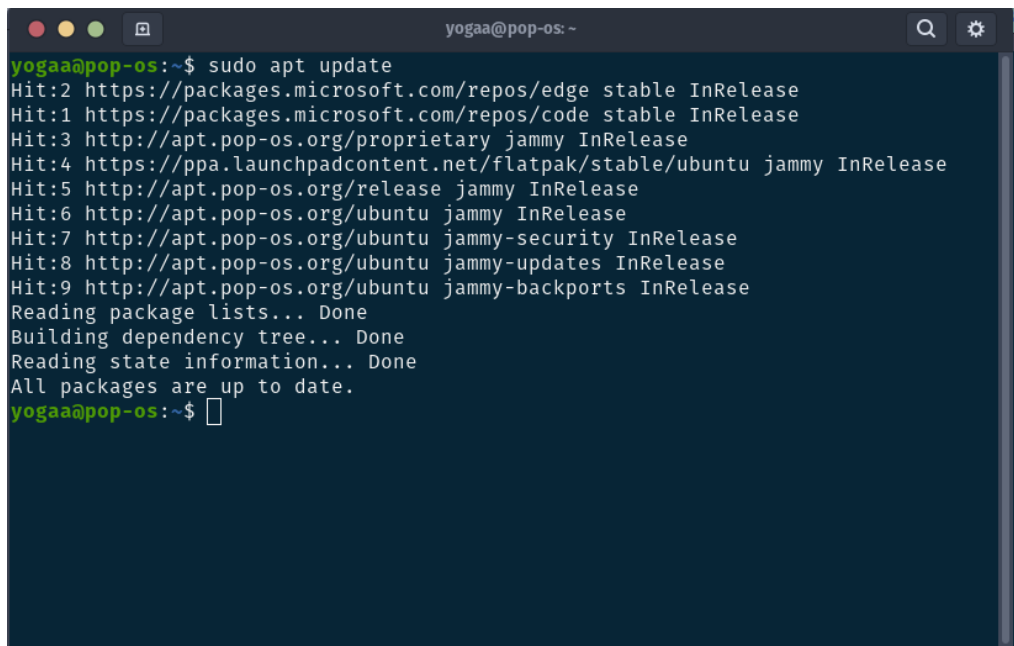
**2024**

# LANGKAH LANGKAH INSTALASI MYSQL DAN XAMPP DI LINUX BERBASIS UBUNTU

## 1. Instalasi MySQL

### (1) Perbarui Repositori APT

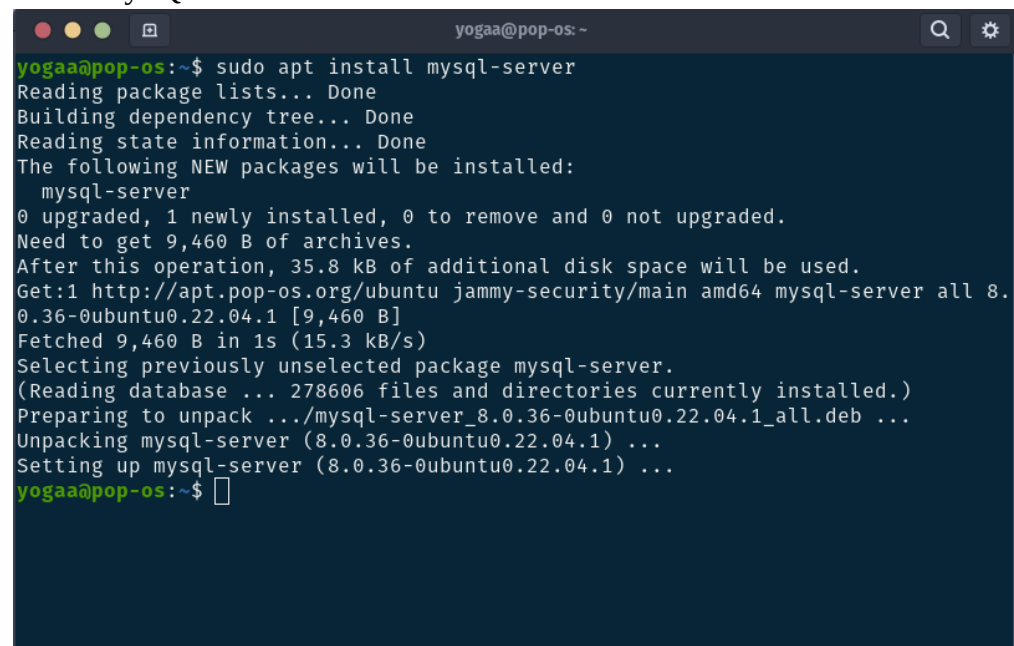
Sebelum menginstal MySQL, pastikan repositori APT sudah dalam kondisi ter-update dengan menjalankan perintah **sudo apt update**.



```
yogaa@pop-os:~$ sudo apt update
Hit:2 https://packages.microsoft.com/repos/edge stable InRelease
Hit:1 https://packages.microsoft.com/repos/code stable InRelease
Hit:3 http://apt.pop-os.org/proprietary jammy InRelease
Hit:4 https://ppa.launchpadcontent.net/flatpak/stable/ubuntu jammy InRelease
Hit:5 http://apt.pop-os.org/release jammy InRelease
Hit:6 http://apt.pop-os.org/ubuntu jammy InRelease
Hit:7 http://apt.pop-os.org/ubuntu jammy-security InRelease
Hit:8 http://apt.pop-os.org/ubuntu jammy-updates InRelease
Hit:9 http://apt.pop-os.org/ubuntu jammy-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
All packages are up to date.
yogaa@pop-os:~$
```

### (2) Instalasi MySQL Server

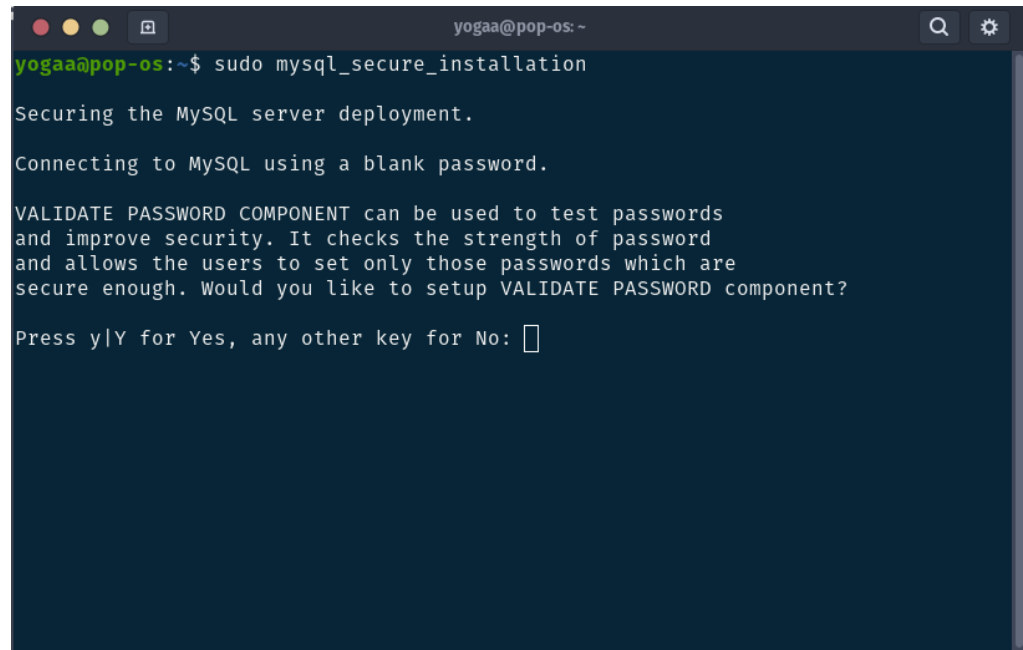
Jalankan perintah **sudo apt install mysql-server** untuk menginstal paket server MySQL



```
yogaa@pop-os:~$ sudo apt install mysql-server
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following NEW packages will be installed:
  mysql-server
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 9,460 B of archives.
After this operation, 35.8 kB of additional disk space will be used.
Get:1 http://apt.pop-os.org/ubuntu jammy-security/main amd64 mysql-server all 8.0.36-0ubuntu0.22.04.1 [9,460 B]
Fetched 9,460 B in 1s (15.3 kB/s)
Selecting previously unselected package mysql-server.
(Reading database ... 278606 files and directories currently installed.)
Preparing to unpack ../mysql-server_8.0.36-0ubuntu0.22.04.1_all.deb ...
Unpacking mysql-server (8.0.36-0ubuntu0.22.04.1) ...
Setting up mysql-server (8.0.36-0ubuntu0.22.04.1) ...
yogaa@pop-os:~$
```

### (3) Konfigurasi MySQL

Setelah instalasi selesai, jalankan skrip keamanan MySQL yang akan membantu mengamankan instalasi dan menghapus pengaturan default yang tidak diperlukan. Jalankan perintah **sudo mysql\_secure\_installation**.

A terminal window titled 'yogaa@pop-os: ~' with search and settings icons in the top right. The prompt is 'yogaa@pop-os:~\$'. The command 'sudo mysql\_secure\_installation' has been entered. The output shows the script's progress: 'Securing the MySQL server deployment.', 'Connecting to MySQL using a blank password.', and a message about the 'VALIDATE PASSWORD COMPONENT' with a question 'Would you like to setup VALIDATE PASSWORD component?'. The prompt 'Press y|Y for Yes, any other key for No:' is followed by a cursor.

```
yogaa@pop-os:~$ sudo mysql_secure_installation

Securing the MySQL server deployment.

Connecting to MySQL using a blank password.

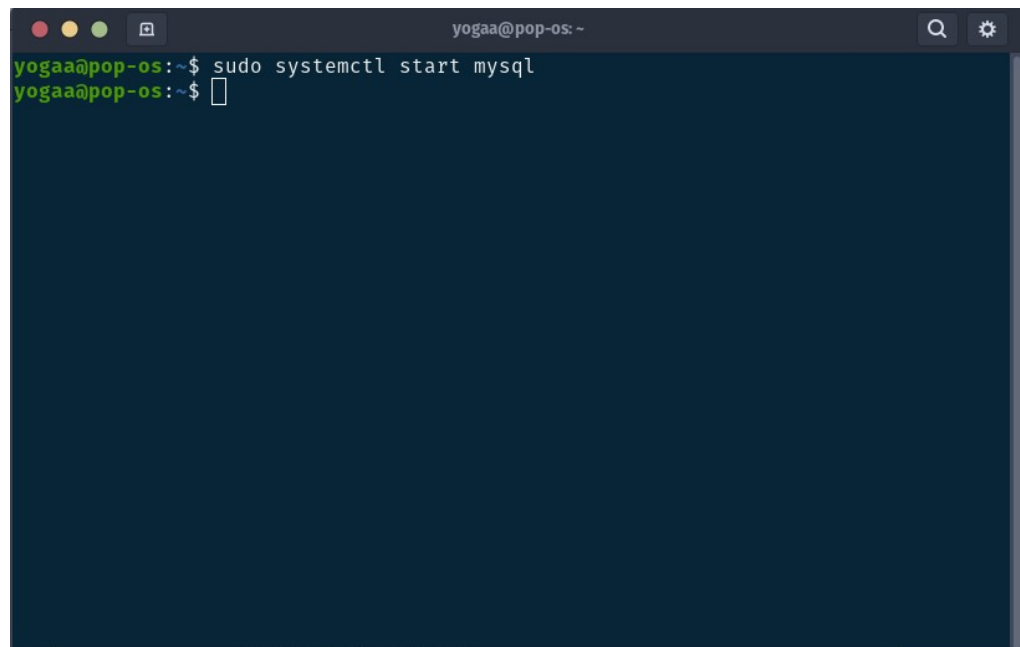
VALIDATE PASSWORD COMPONENT can be used to test passwords
and improve security. It checks the strength of password
and allows the users to set only those passwords which are
secure enough. Would you like to setup VALIDATE PASSWORD component?

Press y|Y for Yes, any other key for No: 
```

Ikuti petunjuk pada layar untuk mengatur keamanan, termasuk pengaturan password root, menghapus pengguna anonim, dan menonaktifkan akses jarak jauh jika tidak diperlukan.

### (4) Mulai Layanan MySQL

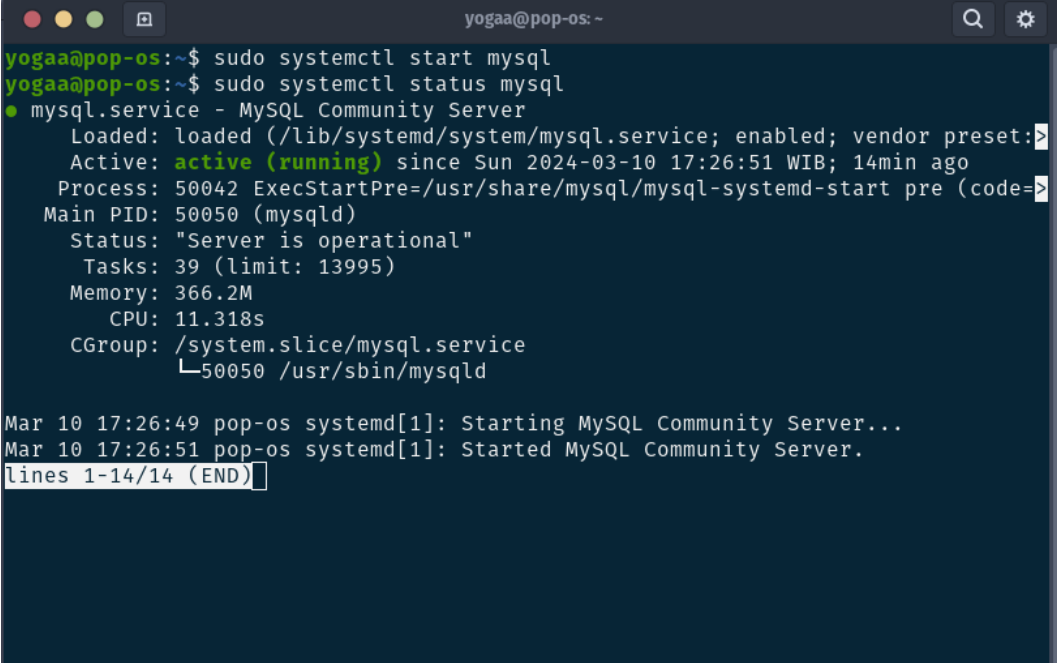
Setelah mengonfigurasi MySQL, memulai layanan MySQL dengan menjalankan perintah **sudo systemctl start mysql**

A terminal window titled 'yogaa@pop-os: ~' with search and settings icons in the top right. The prompt is 'yogaa@pop-os:~\$'. The command 'sudo systemctl start mysql' has been entered, and the prompt is now 'yogaa@pop-os:~\$' followed by a cursor.

```
yogaa@pop-os:~$ sudo systemctl start mysql
yogaa@pop-os:~$ 
```

## (5) Verifikasi Layanan MySQL

Pemeriksa status MySQL untuk memastikan bahwa layanan telah dimulai dengan benar dengan menjalankan perintah **sudo systemctl status mysql**. Jika layanan berjalan dengan baik, maka akan muncul pesan bahwa MySQL telah dimulai.

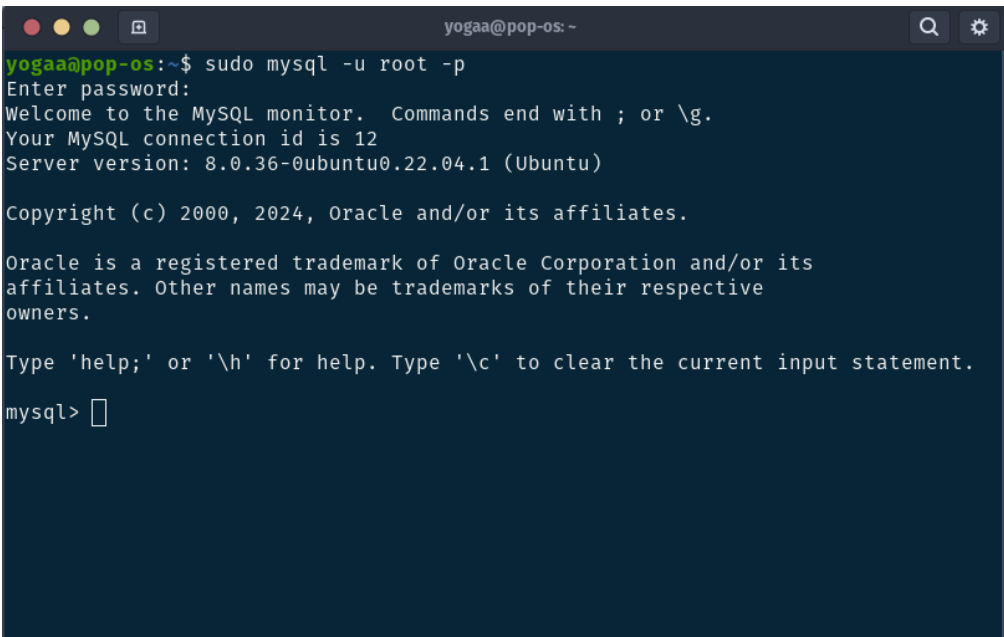
A terminal window titled 'yogaa@pop-os: ~' showing the execution of 'sudo systemctl start mysql' and 'sudo systemctl status mysql'. The status output for 'mysql.service - MySQL Community Server' shows it is 'active (running)' since Sun 2024-03-10 17:26:51 WIB. It lists process details: Process 50042, Main PID 50050 (mysqld), Status 'Server is operational', Tasks 39, Memory 366.2M, CPU 11.318s, and CGroup /system.slice/mysql.service. Log messages at the bottom show the service starting at 17:26:49 and 17:26:51. The prompt 'lines 1-14/14 (END)' is visible at the bottom.

```
yogaa@pop-os:~$ sudo systemctl start mysql
yogaa@pop-os:~$ sudo systemctl status mysql
● mysql.service - MySQL Community Server
   Loaded: loaded (/lib/systemd/system/mysql.service; enabled; vendor preset:
   Active: active (running) since Sun 2024-03-10 17:26:51 WIB; 14min ago
   Process: 50042 ExecStartPre=/usr/share/mysql/mysql-systemd-start pre (code=
 Main PID: 50050 (mysqld)
   Status: "Server is operational"
   Tasks: 39 (limit: 13995)
  Memory: 366.2M
     CPU: 11.318s
   CGroup: /system.slice/mysql.service
           └─50050 /usr/sbin/mysqld

Mar 10 17:26:49 pop-os systemd[1]: Starting MySQL Community Server...
Mar 10 17:26:51 pop-os systemd[1]: Started MySQL Community Server.
lines 1-14/14 (END)
```

## (6) Login ke MySQL

Terakhir, kita bisa login ke server MySQL menggunakan perintah **sudo mysql -u root -p**. Nantinya kita akan diminta untuk memasukkan kata sandi yang telah set selama konfigurasi.

A terminal window titled 'yogaa@pop-os: ~' showing the execution of 'sudo mysql -u root -p'. It prompts for a password, then displays the MySQL monitor welcome message, connection ID 12, and server version 8.0.36-0ubuntu0.22.04.1 (Ubuntu). It also shows copyright and trademark information, and instructions on how to use help and clear the input. The prompt 'mysql>' is shown at the bottom.

```
yogaa@pop-os:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 12
Server version: 8.0.36-0ubuntu0.22.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql>
```

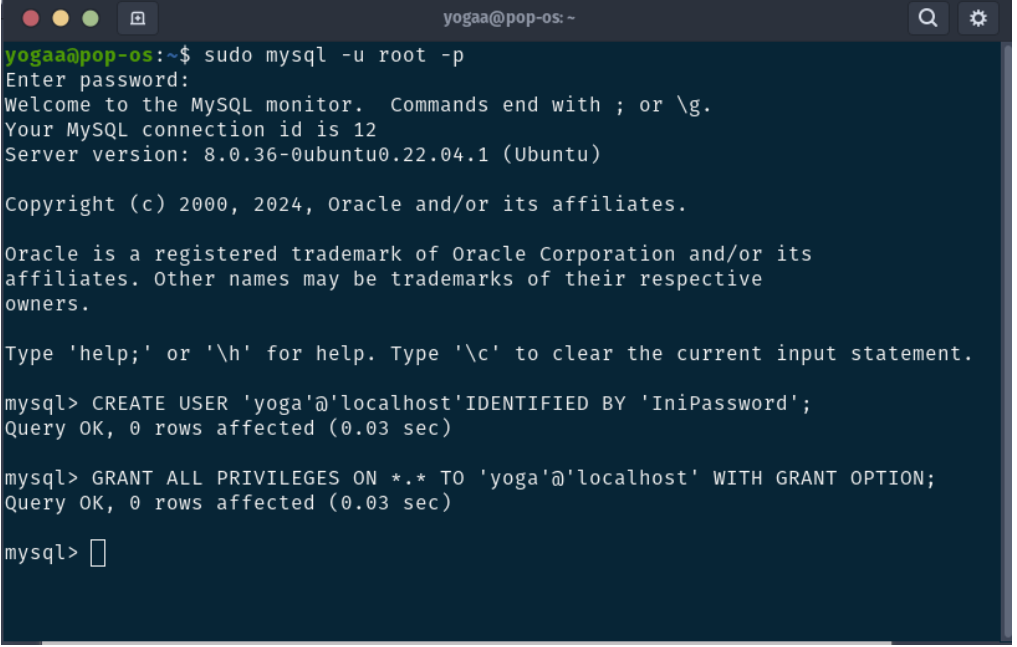
### (7) Buat user baru (opsional)

Setelah berhasil login ke server MySQL, kita bisa membuat user baru dengan perintah berikut ini di dalam MySQL.

```
CREATE      USER      'nama_pengguna_baru'@'localhost'  
IDENTIFIED BY 'password_pengguna_baru';
```

Selain membuat user baru, kita juga bisa memberi permission untuk user tersebut, kali ini user yang baru dibuat tadi akan diberi hak akses yang sama seperti root.

```
GRANT      ALL      PRIVILEGES      ON      *.*      TO  
'nama_pengguna_baru'@'localhost'      WITH      GRANT  
OPTION;
```

A screenshot of a terminal window titled 'yogaa@pop-os: ~'. The user has run 'sudo mysql -u root -p' and entered a password. The MySQL prompt shows the user is logged in as root. The user then enters two SQL commands: 'CREATE USER 'yoga'@'localhost' IDENTIFIED BY 'IniPassword';' and 'GRANT ALL PRIVILEGES ON \*.\* TO 'yoga'@'localhost' WITH GRANT OPTION;'. Both commands are successful, returning 'Query OK, 0 rows affected (0.03 sec)'. The terminal shows the MySQL version as 8.0.36-0ubuntu0.22.04.1 (Ubuntu).

```
yogaa@pop-os:~$ sudo mysql -u root -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 12  
Server version: 8.0.36-0ubuntu0.22.04.1 (Ubuntu)  
  
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Oracle is a registered trademark of Oracle Corporation and/or its  
affiliates. Other names may be trademarks of their respective  
owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
  
mysql> CREATE USER 'yoga'@'localhost' IDENTIFIED BY 'IniPassword';  
Query OK, 0 rows affected (0.03 sec)  
  
mysql> GRANT ALL PRIVILEGES ON *.* TO 'yoga'@'localhost' WITH GRANT OPTION;  
Query OK, 0 rows affected (0.03 sec)  
  
mysql> 
```

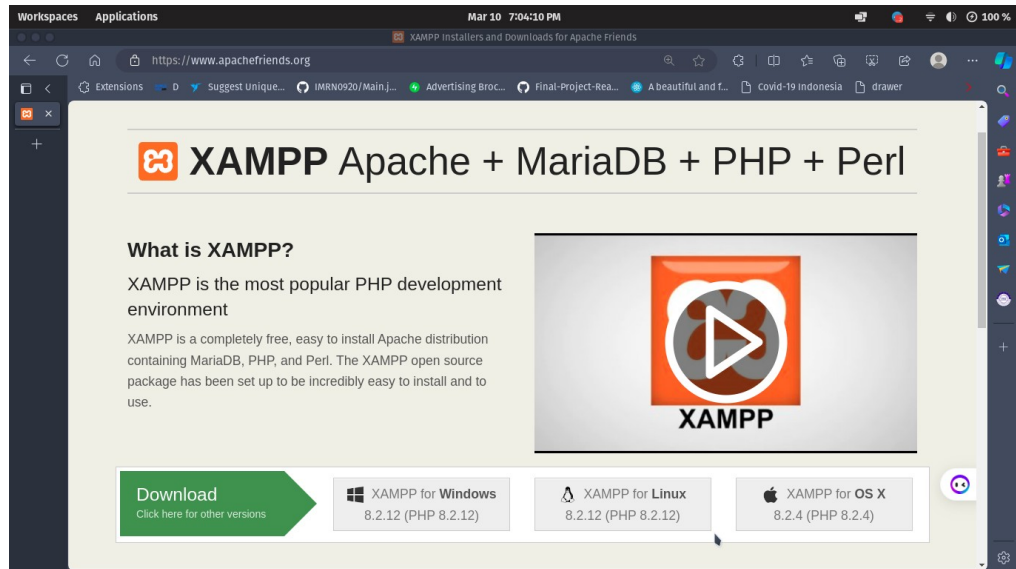
Setelah itu coba masuk menggunakan user yang baru saja dibuat

```
yogaa@pop-os: ~  
yogaa@pop-os:~$ mysql -u yoga -p  
Enter password:  
Welcome to the MySQL monitor.  Commands end with ; or \g.  
Your MySQL connection id is 13  
Server version: 8.0.36-0ubuntu0.22.04.1 (Ubuntu)  
  
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owners.  
  
Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.  
mysql> SELECT User, Host FROM mysql.user;  
+-----+-----+  
| User          | Host          |  
+-----+-----+  
| debian-sys-maint | localhost    |  
| mysql.infoschema | localhost    |  
| mysql.session   | localhost    |  
| mysql.sys       | localhost    |  
| root           | localhost    |  
| yoga           | localhost    |  
+-----+-----+  
6 rows in set (0.01 sec)
```

## 2. Instalasi XAMPP

### (1) Download Package Instalasi

Download paket instalasi dari web <https://www.apachefriends.org/>, lalu pilih paket instalasi XAMPP untuk linux.



### (2) Buat Package Instalasi menjadi Executable

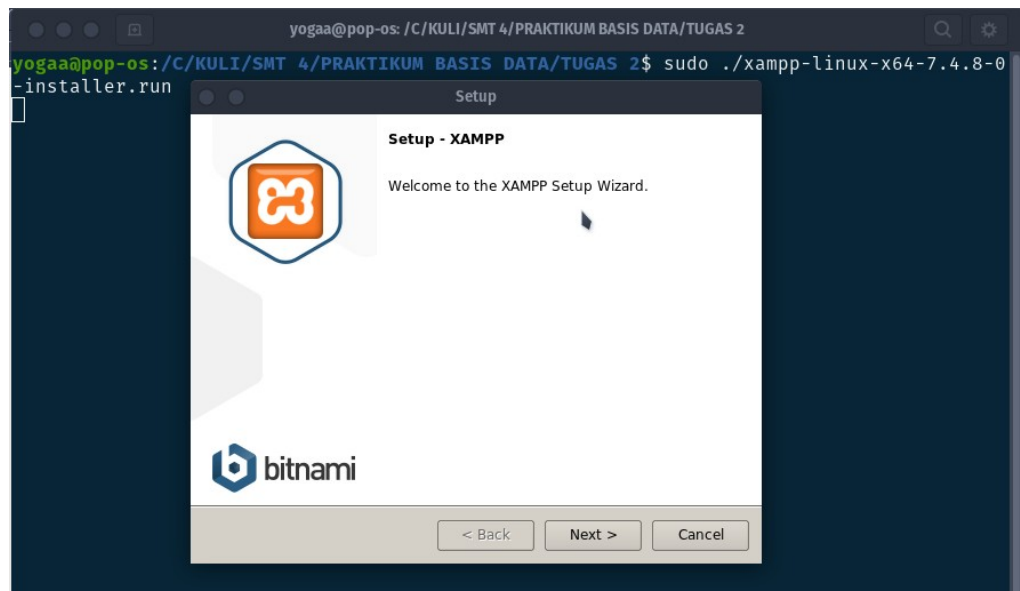
Buka folder tempat mendownload file paket instalasi XAMPP dengan terminal, lalu ubah hak akses dari file tersebut menjadi executable dengan perintah **sudo chmod 755 "Nama Paket Instalasi"**.

```
yogaa@pop-os: /C/KULI/SMT 4/PRAKTIKUM BASIS DATA/TUGAS 2
yogaa@pop-os:/C/KULI/SMT 4/PRAKTIKUM BASIS DATA/TUGAS 2$ ls -l
total 154452
-rw-rw-r-- 1 yogaa yogaa 158150665 Mar  7 09:51 xampp-linux-x64-7.4.8-0-installer.run
yogaa@pop-os:/C/KULI/SMT 4/PRAKTIKUM BASIS DATA/TUGAS 2$ sudo chmod 775 xampp-linux-x64-7.4.8-0-installer.run
[sudo] password for yogaa:
yogaa@pop-os:/C/KULI/SMT 4/PRAKTIKUM BASIS DATA/TUGAS 2$
yogaa@pop-os:/C/KULI/SMT 4/PRAKTIKUM BASIS DATA/TUGAS 2$ ls -l
total 154452
-rwxrwxr-x 1 yogaa yogaa 158150665 Mar  7 09:51 xampp-linux-x64-7.4.8-0-installer.run
yogaa@pop-os:/C/KULI/SMT 4/PRAKTIKUM BASIS DATA/TUGAS 2$
```

Dengan konfigurasi 755, file tersebut memberikan pemiliknya hak penuh untuk membaca, menulis, dan mengeksekusi, sementara grup yang terkait dengan file atau direktori hanya memiliki hak untuk membaca dan mengeksekusi. Pengguna lain di sistem juga diberi izin untuk membaca dan mengeksekusi file atau direktori tersebut. Ini adalah pengaturan yang umum diberikan kepada file atau direktori yang perlu diakses dan dieksekusi oleh pengguna lain, seperti paket perangkat lunak yang akan diinstal secara sistematis.

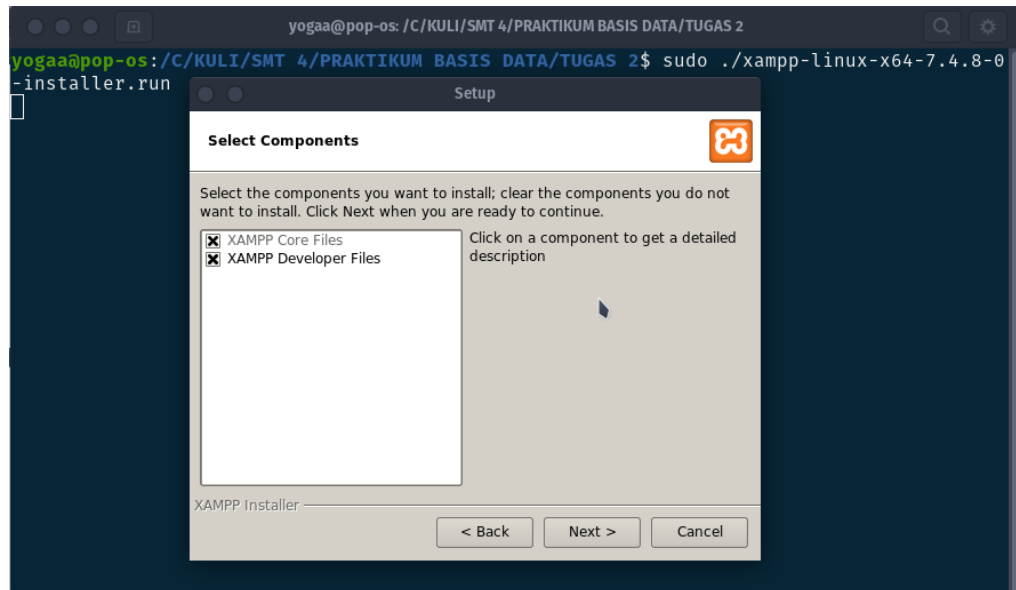
### (3) Install XAMPP

Setelah mengatur hak akses, eksekusi file paket instalasi XAMPP untuk memulai proses instalasi.

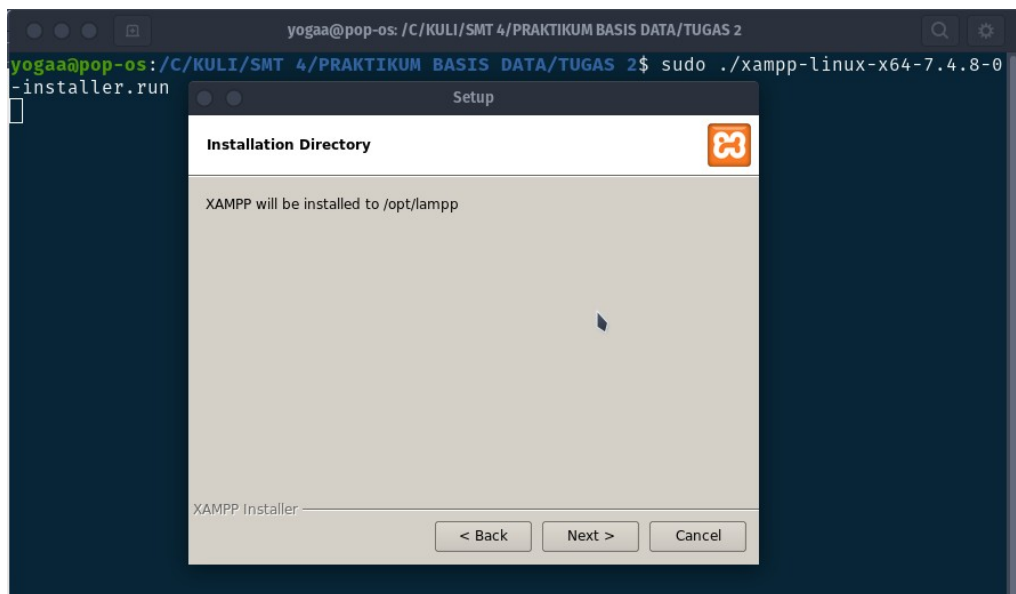


Klik **Next**, lalu di bagian *Select Components*, pilih komponen yang ingin di install. Setelah itu, lanjutkan instalasi dengan klik **Next**.

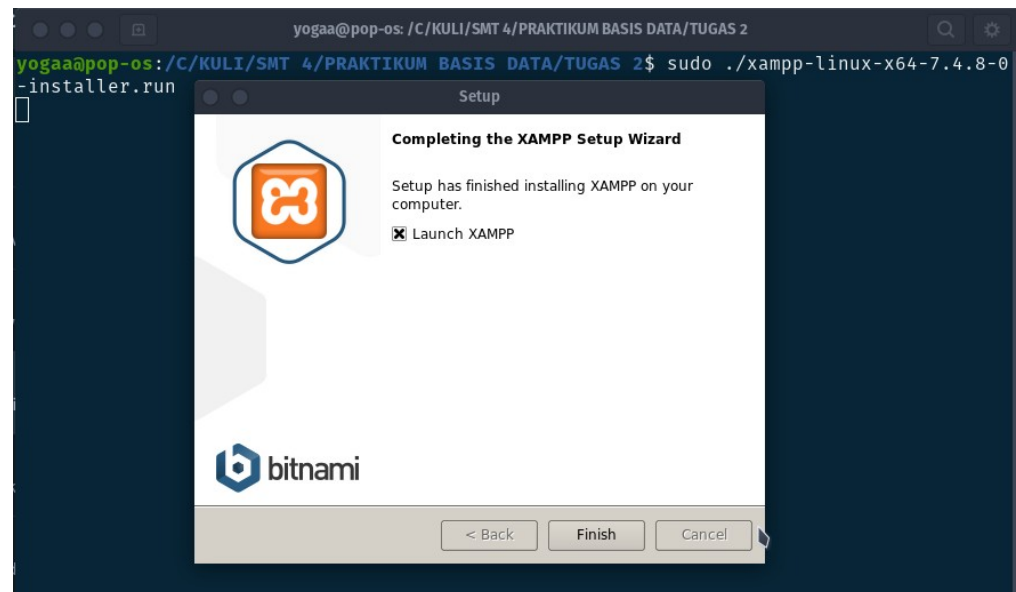
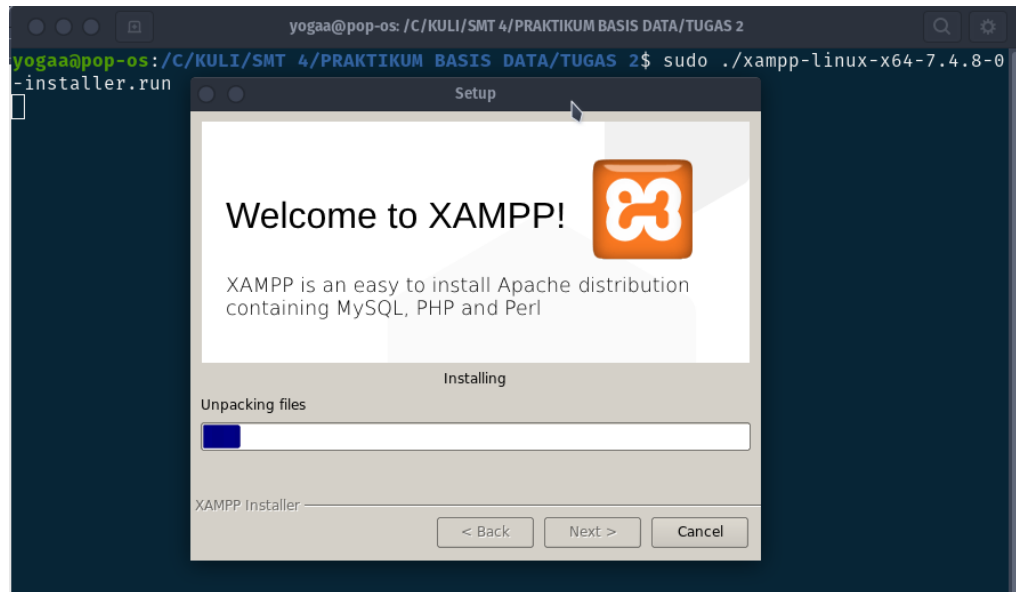




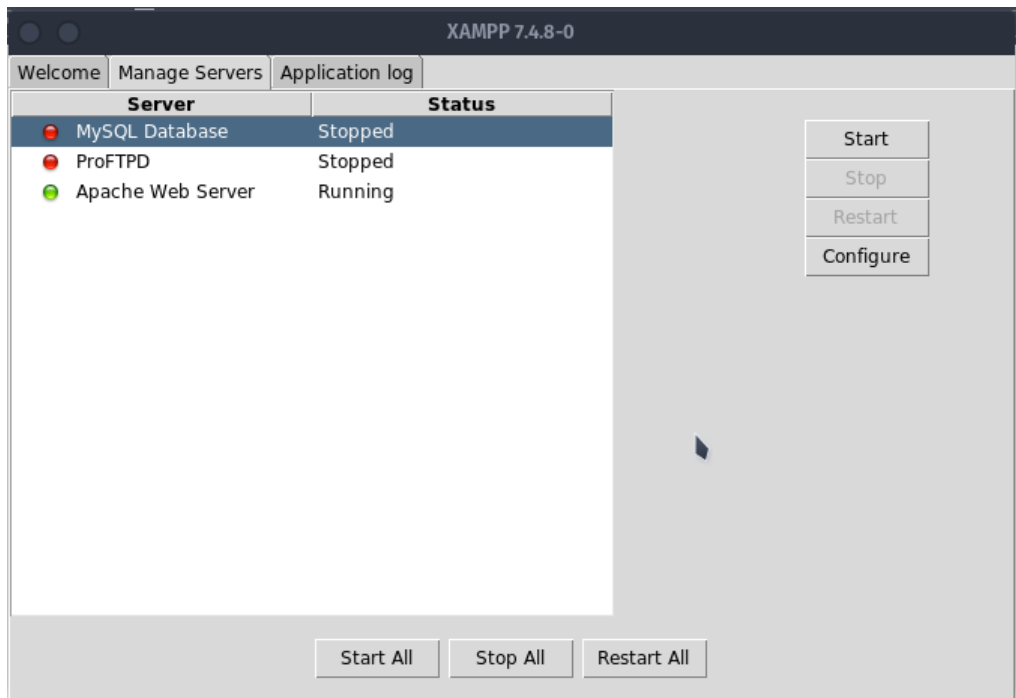
Setelah itu tentukan direktori untuk menyimpan file instalasi XAMPP, jika sudah, klik next.



Setelah menentukan direktori, klik **Next** sampai muncul tampilan instalasi XAMPP, setelah itu, tunggu hingga proses instalasi selesai dilakukan.



#### (4) Jalankan XAMPP



setelah dijalankan, start program mysql database.

