

LAPORAN PRAKTIKUM ARSITEKTUR DAN ORGANISASI KOMPUTER



Disusun Oleh :

Nama : Kerisna
NIM : 09030582226011
Prodi : Teknik Komputer
Dosen : ADI HERMANSYA S, KOM, MT

**LABORATORIUM ROBOTIKA DAN ARSITEKTUR DAN
ORGANISASI KOMPUTER
FAKULTAS ILMU KOMPUTER
UNIVERSITAS SRIWIJAYA
PALEMBANG 2023**

1. **Pendahuluan :** penggunaan VirtualBox sebagai platform virtualisasi memberikan kemudahan dalam mengelola dan menguji berbagai sistem operasi dan aplikasi tanpa memerlukan perangkat keras fisik tambahan. Salah satu aspek penting dari administrasi sistem adalah kemampuan untuk mengelola server jarak jauh menggunakan protokol Secure Shell (SSH), yang memungkinkan akses aman dan fleksibel ke mesin virtual.

Artikel ini akan membahas langkah-langkah instalasi OpenSSH pada mesin virtual menggunakan VirtualBox, sehingga Anda dapat dengan mudah mengelola server secara remote. Selain itu, tutorial ini juga akan membimbing Anda melalui proses instalasi WordPress, salah satu platform manajemen konten paling populer, pada mesin virtual yang telah diatur sebelumnya.

2. **Tujuan :**

- Mengenalkan Konsep Virtualisasi dengan VirtualBox
- Memahami Penggunaan SSH untuk Akses Jarak Jauh
- Melakukan Instalasi WordPress pada Mesin Virtual

3. **Peralatan yang di gunakan** ○ Komputer atau Laptop ○ Sistem Operasi:

- Instalasi VirtualBox dan penggunaan mesin virtual memerlukan sistem operasi yang mendukung VirtualBox, seperti Windows, macOS, atau Linux. ○ VirtualBox:
 - perangkat lunak virtualisasi yang akan digunakan untuk membuat dan mengelola mesin virtual. ○ Koneksi Internet:
 - Diperlukan koneksi internet untuk mengunduh perangkat lunak VirtualBox dan WordPress
- Text Editor (Opsional):
 - Sebuah editor teks, seperti Visual Studio Code atau Notepad++, dapat berguna saat melakukan konfigurasi dan penyesuaian file konfigurasi.

4. **Prosedur praktikum**

- Membuat nama pada halaman tersebut dan mengubah type menjadi linux, lalu klik ok



- Membuat nama/username dan password, setelah itu klik done
- Lalu masukkan username tadi tekan enter, setelah itu update terlebih dahulu, setelah itu masukkan password lalu klik enter

```
diaz1234 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

command 'dia' from deb dia (0.97.3+git20160930-9)

Try: sudo apt install <deb name>

diaz@diaz:~$ sudo apt install
[sudo] password for diaz:
Reading package lists... Done
Building dependency tree
Reading state information... Done
0 upgraded, 0 newly installed, 0 to remove and 64 not upgraded.
diaz@diaz:~$ sudo apt update
Hit:1 http://id.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://id.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Get:3 http://id.archive.ubuntu.com/ubuntu focal-backports InRelease [108 kB]
Get:4 http://id.archive.ubuntu.com/ubuntu focal-security InRelease [114 kB]
Get:5 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 Packages [2,959 kB]
Get:6 http://id.archive.ubuntu.com/ubuntu focal-updates/universe amd64 Packages [11,190 kB]
Get:7 http://id.archive.ubuntu.com/ubuntu focal-updates/universe Translation-en [270 kB]
Get:8 http://id.archive.ubuntu.com/ubuntu focal-security/main amd64 Packages [2,569 kB]
Get:9 http://id.archive.ubuntu.com/ubuntu focal-security/main Translation-en [398 kB]
Get:10 http://id.archive.ubuntu.com/ubuntu focal-security/universe amd64 Packages [897 kB]
Get:11 http://id.archive.ubuntu.com/ubuntu focal-security/universe Translation-en [188 kB]
Fetched 8,748 kB in 19s (468 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
66 packages can be upgraded. Run 'apt list --upgradable' to see them.
diaz@diaz:~$ diaz

Command 'diaz' not found, did you mean:

  command 'dia' from deb dia (0.97.3+git20160930-9)

Try: sudo apt install <deb name>

diaz@diaz:~$ sudo apt update
[sudo] password for diaz:
```

```
Device Filters: 0 (0 active)

Shared folders

diaz@diaz:~$ sudo apt update
Hit:1 http://id.archive.ubuntu.com/ubuntu focal InRelease
Get:2 http://id.archive.ubuntu.com/ubuntu focal-updates InRelease [114 kB]
Hit:3 http://id.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://id.archive.ubuntu.com/ubuntu focal-security InRelease
Fetched 114 kB in 8s (14.1 kB/s)
Reading package lists... Done
Building dependency tree
Reading state information... Done
66 packages can be upgraded. Run 'apt list --upgradable' to see them.
diaz@diaz:~$ sudo apt install openssh-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
openssh-server is already the newest version (1:8.2p1-4ubuntu0.9).
0 upgraded, 0 newly installed, 0 to remove and 66 not upgraded.
diaz@diaz:~$ sudo systemctl enable ssh
Synchronizing state of ssh.service with SysV service script with /lib/systemd/systemd-sysv-install.
Executing: /lib/systemd/systemd-sysv-install enable ssh
diaz@diaz:~$ sudo systemctl start ssh
diaz@diaz:~$ sudo ufw allow ssh
Rule added
Rule added (v6)
diaz@diaz:~$ sudo ufw enable
Firewall is active and enabled on system startup
diaz@diaz:~$ sudo ufw status
Status: active

To Action From
--
Apache ALLOW Anywhere
22/tcp ALLOW Anywhere
Apache (v6) ALLOW Anywhere (v6)
22/tcp (v6) ALLOW Anywhere (v6)

diaz@diaz:~$
```

```
Command Prompt - ssh diaz x + v
Microsoft Windows [Version 10.0.22621.2428]
(c) Microsoft Corporation. All rights reserved.

C:\Users\ASUS>ssh diaz@10.1.10.150
The authenticity of host '10.1.10.150 (10.1.10.150)' can't be established.
ED25519 key fingerprint is SHA256:FtsXbqCdS08nn8vF7go0I40TkKQOEChnXfeFThzZlUE.
This host key is known by the following other names/addresses:
  C:\Users\ASUS/.ssh/known_hosts:5: 10.1.9.170
Are you sure you want to continue connecting (yes/no/[fingerprint])? y
Please type 'yes', 'no' or the fingerprint:
```

```
* Management:      https://landscape.canonical.com
* Support:         https://ubuntu.com/advantage

System information as of Wed 15 Nov 2023 04:04:49 AM UTC

System load:  0.04          Processes:           117
Usage of /:   55.8% of 8.02GB Users logged in:          1
Memory usage: 55%          IPv4 address for enp0s3: 10.1.10.150
Swap usage:   2%

* Strictly confined Kubernetes makes edge and IoT secure. Learn how MicroK8s
  just raised the bar for easy, resilient and secure K8s cluster deployment.

  https://ubuntu.com/engage/secure-kubernetes-at-the-edge

67 updates can be applied immediately.
2 of these updates are standard security updates.
To see these additional updates run: apt list --upgradable

Last login: Wed Nov  8 08:05:27 2023 from 10.1.8.27
diaz@diaz:~$ sudo apt update
[sudo] password for diaz:
Hit:1 http://id.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://id.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://id.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://id.archive.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
66 packages can be upgraded. Run 'apt list --upgradable' to see them.
diaz@diaz:~$
```

```
diar@diar:~$ sudo apt update
Hit:1 http://id.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://id.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://id.archive.ubuntu.com/ubuntu focal-backports InRelease
Hit:4 http://id.archive.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
66 packages can be upgraded. Run 'apt list --upgradable' to see them.
diar@diar:~$ sudo apt install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.41-4ubuntu1.14).
0 upgraded, 0 newly installed, 0 to remove and 66 not upgraded.
diar@diar:~$ sudo apt install mysql-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
mysql-server is already the newest version (8.0.35-0ubuntu0.20.04.1).
0 upgraded, 0 newly installed, 0 to remove and 66 not upgraded.
diar@diar:~$ sudo systemctl start enable mysql
Failed to start enable.service: Unit enable.service not found.
diar@diar:~$ sudo systemctl enable mysql
Synchronizing state of mysql.service with SysV service script with /lib/systemd/systemd-sysv-in
Executing: /lib/systemd/systemd-sysv-install enable mysql
diar@diar:~$
```

```
diar@diar:~$ sudo apt install php libapache2-mod-php php-mysql php-curl php-gd php-xml php-mbstring php-xmllite php-zip
Reading package lists... Done
Building dependency tree
Reading state information... Done
libapache2-mod-php is already the newest version (2:7.4+75).
php is already the newest version (2:7.4+75).
php-curl is already the newest version (2:7.4+75).
php-gd is already the newest version (2:7.4+75).
php-mysql is already the newest version (2:7.4+75).
php-xml is already the newest version (2:7.4+75).
php-xmllite is already the newest version (2:7.4+75).
php-mbstring is already the newest version (2:7.4+75).
php-zip is already the newest version (2:7.4+75).
0 upgraded, 0 newly installed, 0 to remove and 66 not upgraded.
diar@diar:~$ sudo mysql -u root -p
Enter password:
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 8
Server version: 8.0.35-0ubuntu0.20.04.1 (Ubuntu)

Copyright (c) 2000, 2023, Oracle and/or its affiliates.

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 DATABASE wordpress DEFAULT CHARACTER SET utf8 COLLATE utf8_unicode_ci;
Query OK, 1 row affected, 2 warnings (0.00 sec)

mysql> CREATE USER 'wordpressuser'@'localhost' IDENTIFIED BY '1';
```

