

LAPORAN RESMI
PRAKTIKUM ORGANISASI DAN ARSITEKTUR KOMPUTER



JUDUL:
Install SSH Linux Ubuntu Virtual Box untuk Remote Server

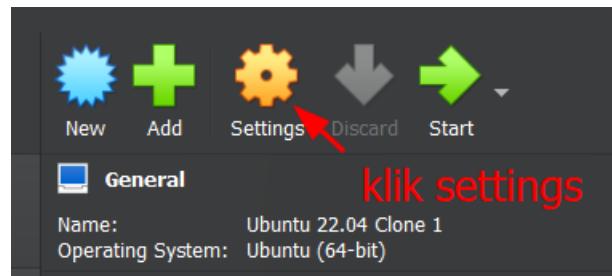
Disusun Oleh :

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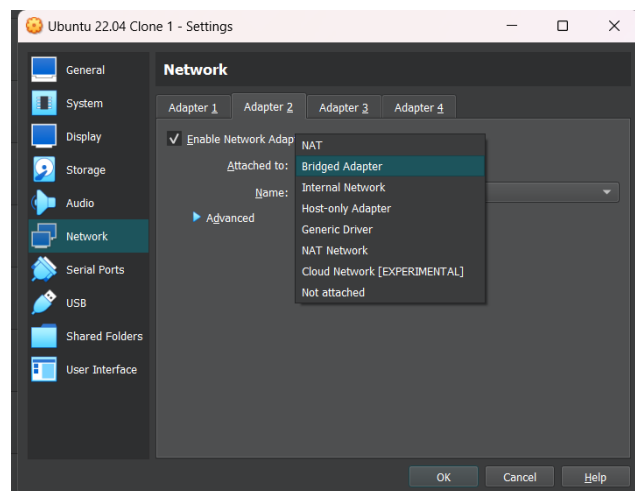
PROGRAM STUDI TEKNIK KOMPUTER
FAKULTAS ILMU KOMPUTER
UNIVERSITAS SRIWIJAYA

1. Disini saya akan memberikan step by step cara installnya

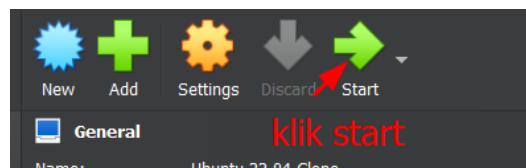
- Pertama klik settings



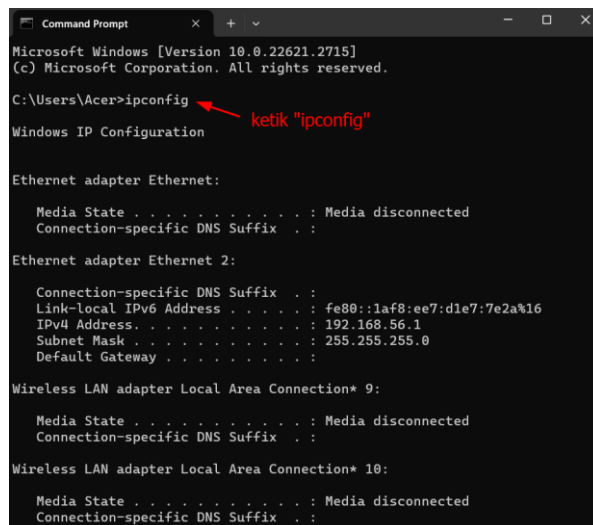
- Pilih Network. Pada bagian Adapter 2 kalian klik Bridged Adapter. Ok



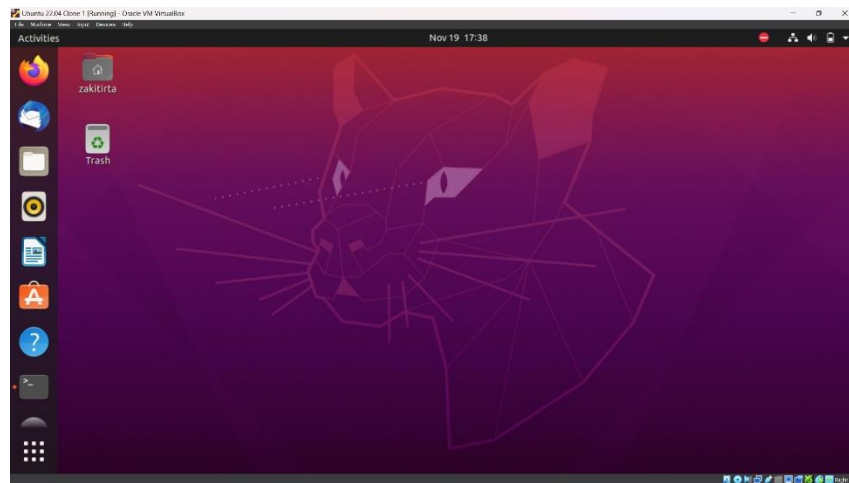
- Kemudian klik start



- Sambil menunggu Linux ubuntu, buka CMD ketik "ipconfig"



- Kemudian kita Kembali Linux ubuntu, buka terminal



- Ketik “*sudo apt update*” dan “*sudo apt install net-tools*”

```

zakitirta@zakitirta-VirtualBox: ~$ sudo apt update
[sudo] password for zakitirta:
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://security.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
232 packages can be upgraded. Run 'apt list --upgradable' to see them.
zakitirta@zakitirta-VirtualBox:~$ sudo apt net-tools
E: Invalid operation net-tools
zakitirta@zakitirta-VirtualBox:~$ sudo apt install net-tools
Reading package lists... Done
Building dependency tree
Reading state information... Done
net-tools is already the newest version (1.60+git20180626.aebd88e-1ubuntu1).
0 upgraded, 0 newly installed, 0 to remove and 232 not upgraded.
zakitirta@zakitirta-VirtualBox:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::789b:fe77:efbc:e1a8 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:68:d3:aa txqueuelen 1000 (Ethernet)

```

- Kemudian ketik “*ifconfig*”, kita bisa cek ip kita tersebut

```

zakitirta@zakitirta-VirtualBox: ~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::789b:fe77:efbc:e1a8 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:68:d3:aa txqueuelen 1000 (Ethernet)
    RX packets 668 bytes 435842 (435.8 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 718 bytes 99965 (99.9 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

enp0s8: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.1.7 netmask 255.255.255.0 broadcast 192.168.1.255
    inet6 2405:8180:e01:ae0:596e:ec24:ba95:8644 prefixlen 64 scopeid 0x0<
global>
    inet6 fe80::a1c0:d2fe:b4f3:d1ce prefixlen 64 scopeid 0x20<link>
    inet6 2405:8180:e01:ae0:bb6e:aadc:2342:bb64 prefixlen 64 scopeid 0x0<
global>
    ether 08:00:27:0f:ef:4d txqueuelen 1000 (Ethernet)
    RX packets 479 bytes 58307 (58.3 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 766 bytes 83645 (83.6 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

```

- Kita coba ping CMD ke Linux Ubuntu

```
C:\Users\Acer>ping 192.168.1.7

Pinging 192.168.1.7 with 32 bytes of data:
Reply from 192.168.1.7: bytes=32 time=1ms TTL=64
Reply from 192.168.1.7: bytes=32 time<1ms TTL=64
Reply from 192.168.1.7: bytes=32 time=1ms TTL=64
Reply from 192.168.1.7: bytes=32 time<1ms TTL=64

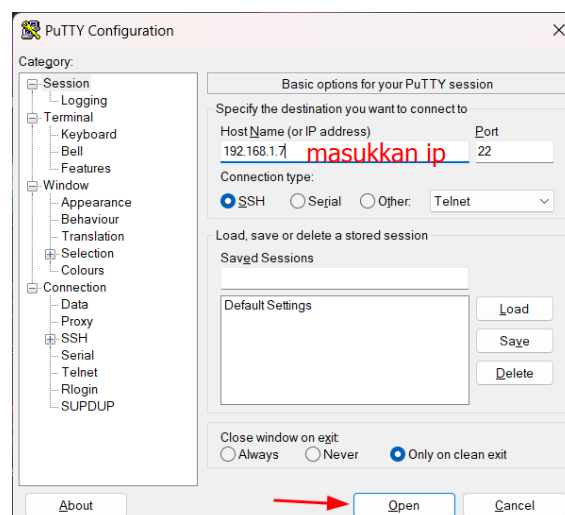
Ping statistics for 192.168.1.7:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 1ms, Average = 0ms
```

2. Cara Menghubungkan SSH Linux Ubuntu ke Putty

- Ketik `"sudo apt update"` agar memperbarui os dan sistem, Setelah itu ketik perintah `"sudo apt install openssh-server"` untuk menginstall SSH pada ubuntu

```
zakitirta@zakitirta-VirtualBox: ~
zakitirta@zakitirta-VirtualBox:~$ 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://security.ubuntu.com/ubuntu focal-security InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
232 packages can be upgraded. Run 'apt list --upgradable' to see them.
zakitirta@zakitirta-VirtualBox:~$ 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 232 not upgraded.
zakitirta@zakitirta-VirtualBox:~$
```

- Buka Aplikasi Putty dan Masukkan Ip Address terdahulu



- Kemudian login ikuti perintah pada gambar dibawah ini

```

zakitirta@zakitirta-VirtualBox: ~
login as: zakitirta
zakitirta@192.168.1.7's password:
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-88-generic x86_64)

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

 * Introducing Expanded Security Maintenance for Applications.
   Receive updates to over 25,000 software packages with your
   Ubuntu Pro subscription. Free for personal use.

   https://ubuntu.com/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

New release '22.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: Sun Nov 19 18:08:49 2023 from 192.168.1.6
zakitirta@zakitirta-VirtualBox:~$

```

```

zakitirta@zakitirta-VirtualBox: ~
https://ubuntu.com/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

New release '22.04.3 LTS' available.
Run 'do-release-upgrade' to upgrade to it.

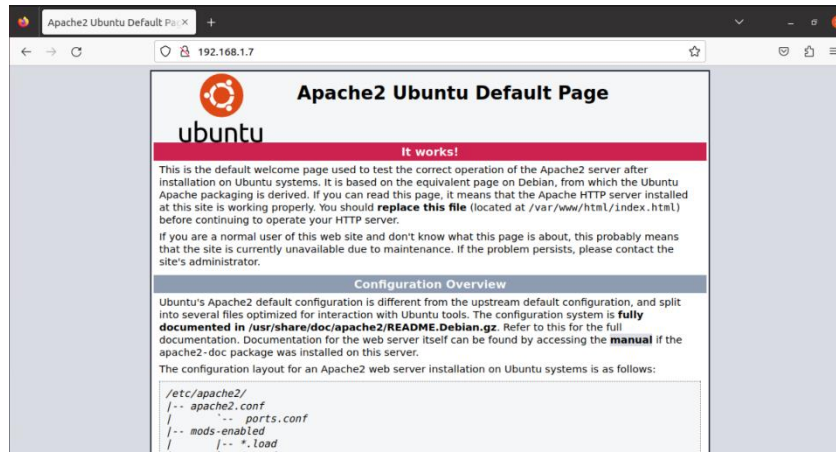
Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: Sun Nov 19 18:08:49 2023 from 192.168.1.6
zakitirta@zakitirta-VirtualBox:~$ sudo apt update
[sudo] password for zakitirta:
Hit:1 http://id.archive.ubuntu.com/ubuntu focal InRelease
Hit:2 http://id.archive.ubuntu.com/ubuntu focal-updates InRelease
Hit:3 http://security.ubuntu.com/ubuntu focal-security InRelease
Hit:4 http://id.archive.ubuntu.com/ubuntu focal-backports InRelease
Reading package lists... Done
Building dependency tree
Reading state information... Done
232 packages can be upgraded. Run 'apt list --upgradable' to see them.
zakitirta@zakitirta-VirtualBox:~$ sudo apt install apache2
Reading package lists... Done
Building dependency tree
Reading state information... Done
apache2 is already the newest version (2.4.41-4ubuntu3.14).
0 upgraded, 0 newly installed, 0 to remove and 232 not upgraded.
zakitirta@zakitirta-VirtualBox:~$ sudo systemctl status server
Unit server.service could not be found.
zakitirta@zakitirta-VirtualBox:~$ sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor prese
   Active: active (running) since Sun 2023-11-19 17:03:24 WIB; 1h 26min ago
     Docs: https://httpd.apache.org/docs/2.4/
   Process: 646 ExecStart=/usr/sbin/apachectl start (code=exited, status=0/SUC
   Main PID: 682 (apache2)
      Tasks: 55 (limit: 3494)
     Memory: 7.1M
    CGroup: /system.slice/apache2.service
            └─682 /usr/sbin/apache2 -k start
              └─685 /usr/sbin/apache2 -k start
                └─686 /usr/sbin/apache2 -k start

Nov 19 17:03:23 zakitirta-VirtualBox systemd[1]: Starting The Apache HTTP Serve
Nov 19 17:03:24 zakitirta-VirtualBox apache2[676]: AH00558: apache2: Could not
Nov 19 17:03:24 zakitirta-VirtualBox systemd[1]: Started The Apache HTTP Server.

[1]+  Stopped                  sudo systemctl status apache2
zakitirta@zakitirta-VirtualBox:~$

```

- Cek apakah apache kalian dengan cara memasukan Ip Address ke Browser, Jika tampil seperti ini maka apache berhasil terinstall.



- Setelah apache berhasil dijalankan, kita membuat folder html, ikuti perintah pada gambar berikut ini.

```

zakitirta@zakitirta-VirtualBox:~$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 10.0.2.15 netmask 255.255.255.0 broadcast 10.0.2.255
    inet6 fe80::789b:fe77:efbc:ela8 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:68:d3:aa txqueuelen 1000 (Ethernet)
    RX packets 1679 bytes 916841 (916.8 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 1558 bytes 214931 (214.9 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

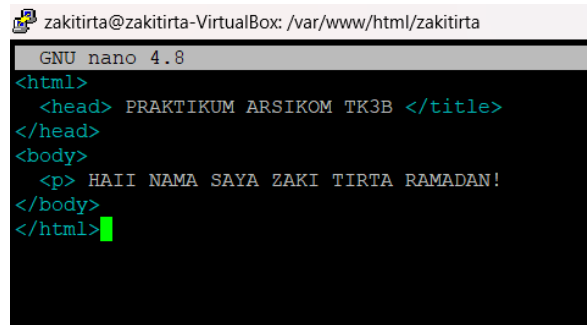
enp0s8: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.1.7 netmask 255.255.255.0 broadcast 192.168.1.255
    inet6 2405:8180:e01:ae0:596e:ec24:ba95:8644 prefixlen 64 scopeid 0x0<g
lobal>
    inet6 fe80::alc0:d2fe:b4f3:dlce prefixlen 64 scopeid 0x20<link>
    inet6 2405:8180:e01:ae0:bb6e:aadc:2342:bb64 prefixlen 64 scopeid 0x0<g
lobal>
    ether 08:00:27:0f:ef:4d txqueuelen 1000 (Ethernet)
    RX packets 2494 bytes 358985 (358.9 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2680 bytes 318448 (318.4 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 952 bytes 114719 (114.7 KB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 952 bytes 114719 (114.7 KB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

zakitirta@zakitirta-VirtualBox:~$ cd /var/www
zakitirta@zakitirta-VirtualBox:/var/www$ ls
html
zakitirta@zakitirta-VirtualBox:/var/www$ cd html
zakitirta@zakitirta-VirtualBox:/var/www/html$ ls
index.html
zakitirta@zakitirta-VirtualBox:/var/www/html$ sudo mkdir zakitirta
zakitirta@zakitirta-VirtualBox:/var/www/html$ sudo chgrp -R www-data /var/www/ht
ml
zakitirta@zakitirta-VirtualBox:/var/www/html$ sudo gpasswd -a zakitirta www-data
Adding user zakitirta to group www-data
zakitirta@zakitirta-VirtualBox:/var/www/html$ sudo chmod -R 777 /var/www/html
zakitirta@zakitirta-VirtualBox:/var/www/html$ cd zakitirta
zakitirta@zakitirta-VirtualBox:/var/www/html/zakitirta$ nano index.html
zakitirta@zakitirta-VirtualBox:/var/www/html/zakitirta$

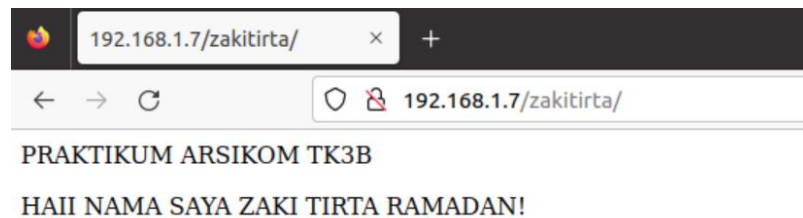
```

- Ini adalah tampilan index.html, Jika sudah simpan dengan cara menekan "CTRL + X + Y" dan Enter



```
zakitirta@zakitirta-VirtualBox: /var/www/html/zakitirta
GNU nano 4.8
<html>
<head> PRAKTIKUM ARSIKOM TK3B </title>
</head>
<body>
<p> HAI NAMA SAYA ZAKI TIRTA RAMADAN!
</body>
</html>
```

- Jika sudah maka kita akan mengecek hasil dari apache tersebut, dengan membuka browser dan ketikkan dengan format "Ip Address/username/"



- Selesai.

Kesimpulan

Pada praktikum ini, kami berhasil mengimplementasikan instalasi sistem operasi Linux Ubuntu dalam virtual machine dan mengonfigurasi koneksi SSH untuk mengaksesnya dari lokasi jauh. Selanjutnya, kami berhasil menyiapkan dan menjalankan server web Apache2 di dalam VM Ubuntu, sukses menyajikan halaman HTML sederhana. Melalui praktikum ini, kami memperoleh pemahaman yang kuat tentang dasar-dasar administrasi sistem Linux dan konfigurasi server web Apache2. Keterampilan ini dianggap penting dalam mengelola serta mengembangkan sistem dan layanan web di lingkungan Linux.