

## การติดตั้ง NGINX , MySQL-server , PHPengine , PHPmyadmin

sudo apt update                      sudo apt upgrade

sudo apt install nginx -y

sudo apt install mariadb-server -y

sudo service status mariadb-service ( เช็คสถานะ )

install PHP and MariaDB ( mySQL-server)

- sudo apt install software-properties-common -y
- sudo add-apt-repository ppa:ondrej/php
- sudo apt install php7.4-fpm php7.4-common php7.4-dom php7.4-intl php7.4-mysql  
php7.4-xml php7.4-xmlrpc php7.4-curl php7.4-gd php7.4-imagick php7.4-cli php7.4-dev  
php7.4-imap php7.4-mbstring php7.4-soap php7.4-zip php7.4-bcmath -y
- systemctl status php7.4-fpm
- sudo apt-key adv --fetch-keys 'https://mariadb.org/mariadb\_release\_signing\_key.asc'
- sudo add-apt-repository 'deb [arch=amd64,arm64,ppc64el]  
http://mirror.nodesdirect.com/mariadb/repo/10.4/ubuntu bionic main'

Install PHPMyAdmin

- wget -c <https://files.phpmyadmin.net/phpMyAdmin/5.0.2/phpMyAdmin-5.0.2-english.tar.gz>
- tar xzvf phpMyAdmin-5.0.2-english.tar.gz
- sudo mv phpMyAdmin-5.0.2-english /usr/share/phpMyAdmin
- sudo ln -s /usr/share/phpmyadmin /var/www/html

## Config NGINX

- `sudo nano /etc/nginx/sites-available/default`

เพิ่มเข้าไปใน code

`index index.php index.html index.htm;` (แก้ตรงนี้ด้วย)

```
location ~ \.php$ {
```

```
    try_files $fastcgi_script_name =404;
```

```
    include fastcgi_params;
```

```
    fastcgi_pass unix:/run/php/php7.4-fpm.sock;
```

```
    fastcgi_index index.php;
```

```
    fastcgi_param DOCUMENT_ROOT $realpath_root;
```

```
    fastcgi_param SCRIPT_FILENAME $realpath_root$fastcgi_script_name;
```

```
}
```

- `nginx -t`
- `systemctl restart nginx`
- `systemctl status nginx`

ก่อนจะเข้า web phpMyAdmin ทำการ `sudo reboot` ก่อน 1 รอบ

`http://_____/phpMyAdmin`

## การ Config สร้าง User ให้กับ phpmyadmin

sudo mysql\_secure\_installation

ใส่ รหัส password ตัวเอง

ต่อไปนี่คือตอบคำถามให้ตอบตามนี้

y

n

y

y

y

y

sudo mysql -u root -p

CREATE USER 'jakapat'@'localhost' IDENTIFIED BY 'jakapat';

- สร้าง User ตัวเอง

GRANT ALL PRIVILEGES ON . TO 'jakapat'@'localhost';

- สร้างสิทธิให้ตัว user . มีสิทธิ คล้ายๆ root

FLUSH PRIVILEGES; ทำทุกครั้ง เวลาใส่คำสั่ง

quit; ออก

sudo systemctl restart mariadb.service รีสตาร์ทมันด้วย

sudo reboot เพื่อ ใ้รีสตาร์ท

## การติดตั้ง FTP Server

```
sudo apt-get install vsftpd
```

```
sudo mv /etc/vsftpd.conf /etc/vsftpd.conf_orig
```

```
sudo nano /etc/vsftpd.conf
```

### config in vsftpd.conf

```
listen=NO
```

```
listen_ipv6=YES
```

```
anonymous_enable=NO
```

```
local_enable=YES
```

```
write_enable=YES
```

```
local_umask=022
```

```
dirmessage_enable=YES
```

```
use_localtime=YES
```

```
xferlog_enable=YES
```

```
connect_from_port_20=YES
```

```
chroot_local_user=YES
```

```
secure_chroot_dir=/var/run/vsftpd/empty
```

```
pam_service_name=vsftpd
```

```
rsa_cert_file=/etc/ssl/certs/ssl-cert-snakeoil.pem
```

```
rsa_private_key_file=/etc/ssl/private/ssl-cert-snakeoil.key
```

```
ssl_enable=NO
```

```
pasv_enable=Yes
```

```
pasv_min_port=10000
```

```
pasv_max_port=10100
```

```
allow_writeable_chroot=YES
```

```
local_root=
```

```
sudo ufw allow from any to any port 20,21,10000:10010 proto tcp
```

```
sudo systemctl restart vsftpd
```

```
sudo systemctl status vsftpd
```

## DNS Server

```
sudo apt-get update
```

```
sudo apt-get upgrade
```

```
sudo apt-get dist-upgrade
```

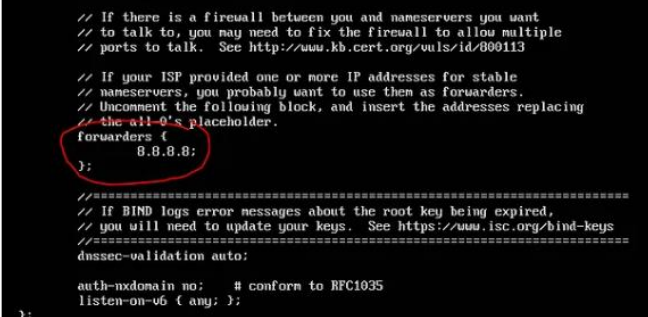
```
sudo apt-get install bind9 bind9utils bind9-doc
```

```
sudo nano /etc/bind/named.conf.options
```

```
forwarders {
```

```
8.8.8.8;
```

```
};
```



```
// If there is a firewall between you and nameservers you want
// to talk to, you may need to fix the firewall to allow multiple
// ports to talk.  See http://www.kb.cert.org/vuls/id/800113

// If your ISP provided one or more IP addresses for stable
// nameservers, you probably want to use them as forwarders.
// Uncomment the following block, and insert the addresses replacing
// the all-0's placeholder.
forwarders {
    8.8.8.8;
};

//=====
// If BIND logs error messages about the root key being expired,
// you will need to update your keys.  See https://www.isc.org/bind-keys
//=====
dnssec-validation auto;

auth-nxdomain no;    # conform to RFC1035
listen-on-v6 { any; };
```

```
sudo systemctl restart bind9
```

```
dig -x 127.0.0.1
```

**sudo nano /etc/bind/named.conf**      มีอยู่แล้วไม่ต้องแก้

```
include "/etc/bind/named.conf.options";  
  
include "/etc/bind/named.conf.local";  
  
include "/etc/bind/named.conf.default-zones";
```

**sudo nano /etc/bind/named.conf.local**

```
zone "jakapatgust.com" {  
  
    type master;  
  
    file "/etc/bind/for.jakapatgust.com";  
  
    allow-transfer { 192.168.1.6; };  
  
    also-notify { 192.168.1.6; };  
  
};  
  
zone "1.168.192.in-addr.arpa" {  
  
    type master;  
  
    file "/etc/bind/rev.jakapatgust.com";  
  
    allow-transfer { 192.168.1.6; };  
  
    also-notify { 192.168.1.6; };  
  
};
```

**sudo nano /etc/bind/for.jakapatgust.com**

\$TTL 86400

@ IN SOA pri.jakapatgust.com. root.jakapatgust.com. (

2011071001 ;Serial

3600 ;Refresh

1800 ;Retry

604800 ;Expire

86400 ;Minimum TTL

)

@ IN NS pri.jakapatgust.com.

@ IN A 192.168.1.6

@ IN A 192.168.1.6

pri IN A 192.168.1.6

client IN A 192.168.1.6

www IN A 192.168.1.6

**sudo nano /etc/bind/rev.jakapatgust.com**

\$TTL 86400

@ IN SOA pri.jakapatgust.com. root.jakapatgust.com. (

2011071002 ;Serial

3600 ;Refresh

1800 ;Retry

604800 ;Expire

86400 ;Minimum TTL

)

@ IN NS pri.jakapatgust.com.

@ IN PTR jakapatgust.com.

pri IN A 192.168.1.6

client IN A 192.168.1.6

6 IN PTR pri.jakapatgust.com.

6 IN PTR client.jakapatgust.com.

**sudo chmod -R 755 /etc/bind**

**sudo chown -R bind:bind /etc/bind**

**sudo named-checkzone jakapatgust.com /etc/bind/for.jakapatgust.com**

**sudo named-checkzone jakapatgust.com /etc/bind/rev.jakapatgust.com**



**sudo nano /etc/network/interfaces**

source /etc/network/interface.d/\*

auto lo

iface lo inet loopback

auto ens33

iface ens33 inet static

address 192.168.1.6

netmask 255.255.255.0

network 192.168.1.0

broadcast 192.168.1.255

gateway 192.168.1.1

dns-nameservers 192.168.1.6

**sudo /etc/init.d/networking restart**

**sudo systemctl restart bind9**

**!!!!!!! อย่าล้าง cache ใน google chrome ด้วย หรือ ไปใน Microsoft edge**

## Shell Scirpt

สร้าง user 100 คน ให้ไปอยู่ใน กลุ่ม Engineer ( แบบ useradd )

### groupadd Engineer

**sudo nano create\_users.sh**

```
#!/bin/bash

for ((i=1; i<=100; i++))

do

    username="user$i"

    password="password$i"

    sudo useradd -m -p $(openssl passwd -1 $password) $username

    sudo usermod -aG Engineer $username

    echo "Created user: $username - Password: $password"

done

ls -la
```

**sudo chmod +x create\_users.sh**

**./create\_users.sh**

ลบ User 100 คน

**sudo nano delete\_users.sh**

```
#!/bin/bash

for ((i=1; i<=100; i++))

do

    username="user$i"

    sudo userdel -r $username

    echo "Deleted user: $username"

done

ls -la
```

**sudo chmod +x delete\_users.sh**

**./delete\_users.sh**

สร้าง user 100 คน ให้ไปอยู่ใน กลุ่ม Engineer ( แบบ adduser )

**sudo nano create\_byadduser.sh**

```
#!/bin/bash
```

```
for ((i=1; i<=100; i++))
```

```
do
```

```
    username="user$i"
```

```
    password="password$i"
```

```
    sudo adduser --disabled-password --gecos "" $username
```

```
    echo "$username:$password" | sudo chpasswd
```

```
    sudo usermod -aG Engineer $username
```

```
    echo "Created user: $username - Password: $password"
```

```
done
```

```
ls -la
```

**sudo chmod +x create\_byadduser.sh**

**./create\_byadduser.sh**

สร้าง User 100 คน

**sudo nano create.sh**

```
#!/bin/bash
```

```
for ((i=1; i<=100; i++))
```

```
do
```

```
    username="user$i"
```

```
    password="password$i"
```

```
    sudo useradd -m -p $(openssl passwd -1 $password) $username
```

```
    echo "Created user: $username - Password: $password"
```

```
done
```

```
ls -la
```

**sudo chmod +x create.sh**

**sudo ./create.sh**

**สร้าง User 100 โดยไม่ต้องมี Directory**

**Sudo nano test\_user.sh**

```
for ((i=1; i<=100; i++))
```

```
do
```

```
    username="user$i"
```

```
    password="password$i"
```

```
    sudo useradd -p $(openssl passwd -1 $password) $username
```

```
    echo "Created user: $username - Password: $password"
```

```
done
```

**sudo chmod +x test\_user.sh**

**./test\_user.sh**

**for ((i=2; i<=100; i+=2)) ต้องการสร้าง จำนวนคู่**

**for ((i=1; i<=100; i+=2)) ต้องการสร้าง จำนวนคี่**

permission

```
drwxr-xr-x 5 acc-manager it-support 4096 Jul 30 08:19 acc-manager
drwxr-xr-x 5 acc-user accounting 4096 Jul 30 08:19 acc-user
drwxrwx--- 2 eng-manager it-support 4096 Jul 16 05:59 eng-manager
drwxrwx--- 4 eng-user engineering 4096 Jul 23 08:48 eng-user
drwxrwx--- 2 it-admin it-support 4096 Jul 16 06:12 it-admin
drwxr-x--- 9 naphatadmin naphatadmin 4096 Aug 20 08:03 naphatadmin
drwxrwx--- 2 pro-manager it-support 4096 Jul 16 05:57 pro-manager
drwxrwx--- 2 pro-user production 4096 Jul 16 05:56 pro-user
accounting:x:1001:acc-manager,acc-user,it-admin
engineering:x:1002:eng-manager,eng-user,it-admin
production:x:1003:pro-manager,pro-user,it-admin
it-support:x:1004:it-admin
acc-manager:x:1005:
acc-user:x:1006:
eng-user:x:1007:
eng-manager:x:1008:
pro-manager:x:1009:
pro-user:x:1010:
it-admin:x:1011:
```

```
sudo adduser acc-user
```

```
sudo chgrp -R namegroup /dir/diruser
```

```
sudo chmod 770 /home/acc-user
```

```
sudo usermod -a -G accounting acc-manager
```

สิทธิ์ 770 หมายถึง:

เจ้าของ (Owner) สามารถอ่าน, เขียน, และดำเนินการ (rwx)

กลุ่ม (Group) สามารถอ่าน, เขียน, และดำเนินการ (rwx)

ผู้อื่น (Others) ไม่มีสิทธิ์เข้าถึง (---)

สิทธิ์ 700 หมายถึง:

เจ้าของ (Owner) สามารถอ่าน, เขียน, และดำเนินการ (rwx)

กลุ่ม (Group) ไม่มีสิทธิ์เข้าถึง (---)

ผู้อื่น (Others) ไม่มีสิทธิ์เข้าถึง (---)

-R เปลี่ยนทุกไฟล์ในโฟลเดอร์

FTP to DATA

ver1

```
su acc-manager
```

Password:

```
mkdir /home/acc-manager/data
```

exit

su acc-user

Password:

mkdir /home/acc-user/data

exit

sudo apt-get install vsftpd -y

sudo mv /etc/vsftpd.conf /etc/bkvsftpd.conf

sudo nano /etc/vsftpd.conf

listen=NO

listen\_ipv6=YES

anonymous\_enable=NO

local\_enable=YES

write\_enable=YES

local\_umask=022

dirmessage\_enable=YES

use\_localtime=YES

xferlog\_enable=YES

connect\_from\_port\_20=YES

chroot\_local\_user=YES

secure\_chroot\_dir=/var/run/vsftpd/empty

pam\_service\_name=vsftpd

rsa\_cert\_file=/etc/ssl/certs/ssl-cert-snakeoil.pem

rsa\_private\_key\_file=/etc/ssl/private/ssl-cert-snakeoil.key

ssl\_enable=NO

pasv\_enable=Yes

pasv\_min\_port=10000

pasv\_max\_port=10010

allow\_writeable\_chroot=YES

user\_sub\_token=\$USER

local\_root=/home/\$USER/data

sudo ufw allow from any to any port 20,21,10000:10010 proto tcp

sudo ufw enable

//Firewall is active and enabled on system startup

sudo ufw status

sudo systemctl restart vsftpd

ver2

su acc-manager

Password:

mkdir /home/acc-manager/data

exit

su acc-user

Password:

mkdir /home/acc-user/data

exit

sudo apt-get install vsftpd -y

sudo mv /etc/vsftpd.conf /etc/bkvsftpd.conf

sudo nano /etc/vsftpd.conf

listen=NO

listen\_ipv6=YES

anonymous\_enable=NO

local\_enable=YES

write\_enable=YES

local\_umask=022

dirmessage\_enable=YES

use\_localtime=YES

xferlog\_enable=YES

connect\_from\_port\_20=YES

chroot\_local\_user=YES

secure\_chroot\_dir=/var/run/vsftpd/empty

pam\_service\_name=vsftpd

rsa\_cert\_file=/etc/ssl/certs/ssl-cert-snakeoil.pem

rsa\_private\_key\_file=/etc/ssl/private/ssl-cert-snakeoil.key

ssl\_enable=NO

pasv\_enable=Yes

pasv\_min\_port=10000

pasv\_max\_port=10010

allow\_writeable\_chroot=YES



```
user_config_dir=/etc/vsftpd_user_conf
```

```
sudo mkdir /etc/vsftpd_user_conf
```

```
sudo nano /etc/vsftpd_user_conf/acc-manager
```

```
local_root=/home/acc-manager/data/
```

```
chroot_local_user=NO
```

```
sudo systemctl restart vsftpd
```

## NGINX

```
sudo ufw allow 'Nginx Full'
```

```
sudo apt-get remove apache2
```

```
sudo cp /var/www/html/index.nginx-debian.html /var/www/html/index.nginx-debian_bk.html
```

```
sudo echo "<html> <body> I here oun </body> </html>" | sudo tee /home/acc-user/public_html/index.html
```

```
sudo nano /etc/nginx/conf.d/user_directories.conf
```

```
server {
```

```
    listen 80;
```

```
    server_name enter your ip;
```

```
    location /acc-user {
```

```
        alias /home/acc-user/public_html/;
```

```
        try_files $uri / =404;
```

```
    }
```

```
    location /pro-user {
```

```
        alias /home/pro-user/public_html/;
```

```
        try_files $uri / =404;
```

```
    }
```

```
    location / {
```

```
        # Default behavior or other configuration
```

```
    }
```

```
}
```

```
sudo chmod 755 /home/acc-user/
```

```
sudo chmod 755 /home/acc-user/public_html
```

```
sudo nginx -t
```

```
service nginx reload
```

## php myadmin

```
sudo apt update
```

```
sudo apt install apache2
```

```
sudo systemctl start apache2
```

```
sudo systemctl enable apache2
```

```
sudo apt update
```

```
sudo apt install mysql-server
```

```
sudo systemctl start mysql
```

```
sudo systemctl enable mysql
```

```
sudo mysql -u root -p
```

```
sudo apt install php libapache2-mod-php php-mysql
```

```
sudo apt install phpmyadmin
```

```
sudo ln -s /etc/phpmyadmin/apache.conf /etc/apache2/conf-available/phpmyadmin.conf
```

```
sudo a2enconf phpmyadmin
```

```
sudo systemctl restart apache2
```