

HOW TO SETUP VPS FOR DYNAMIC WEBSITE

SERVER INFORMATION

BOOT DISK - LINUX DEBIAN 9 (STRETCH)
INSTANCE - GCE F1 (MICRO) (GOOGLE COMPUTE ENGINE)
RAM - 0.6 GB
STORAGE - 10 GB
LOCATION - ASIAN (MUMBAI) SOUTH-C
IP ADDRESS- STATIC
FIREWALLS - ALLOW HTTP, HTTPS
BILLS - \$5.34 / MONTHS

##CREATING FTP ACCOUNT FROM GOOGLE CLOUD

1. CREATE THE VM INSTANCE FROM GOOGLE CLOUD COMPUTE ENGINE

2. RUN BELOW CODE IN GOOGLE CLOUD SHELL

```
gcloud compute ssh anan
```

SSH -

Your identification has been saved in
/home/USERNAME/.ssh/google_compute_engine. (THIS PPK IS USED FOR SFTP IN
FILEZILLA)

Your public key has been saved in
/home/USERNAME/.ssh/google_compute_engine.pub. (PUBLIC KEY)

3. FOR ROOT SSH:

```
sudo vi /etc/ssh/sshd_config
```

CHANGE THE FILE

FROM:

```
PermitRootLogin without-password
```

TO:

```
PermitRootLogin yes
```

4. RESTART THE SERVER SSH

```
/etc/init.d/ssh restart
```

##SETTING UP LAMP SERVER

1. UPDATE APT

```
apt update  
apt upgrade
```

2. INSTALL APACHE SERVER

```
sudo apt install apache2 apache2-utils  
systemctl status apache2  
sudo systemctl enable apache2 (FOR STARTING AUTO AFTER REBOOT)
```

NOW YOU CAN ACCESS FROM YOUR PUBLIC IP

IF YOU'RE NOT ROOT USER, ADD THIS GROUP FOR OTHER USERS
`sudo chown www-data:www-data /var/www/html/ -R`

3. INSTALL MYSQL SERVER

```
sudo apt install mariadb-server mariadb-client
sudo apt install mysql-server mysql-client

systemctl status mariadb

sudo systemctl enable mariadb (FOR STARTING AUTO AFTER REBOOT)

sudo mysql_secure_installation
Y
(USE YOUR PASSWORD)
TAP ALL THE THINGS AS ENTER TO BE DEFAULT
```

TO LOGIN MYSQL
`sudo mariadb -u root`

TO CHECK MARIADB VERSION
`mariadb --version`

4. INSTALL PHP7.3

```
apt install apt-transport-https lsb-release ca-certificates

wget -O /etc/apt/trusted.gpg.d/php.gpg
https://packages.sury.org/php/apt.gpg

echo "deb https://packages.sury.org/php/ $(lsb_release -sc) main" >
/etc/apt/sources.list.d/php.list

apt update

apt install php7.3

apt search php7.3 (FIND MODULES)

apt install php7.3 php7.3-cli php7.3-common php7.3-json php7.3-opcache
php7.3-mysql php7.3-zip php7.3-fpm php7.3-mbstring

apt install libapache2-mod-php7.3 libapache2-mod-php

apt install php-dev libmcrypt-dev php-pear

a2enmod php7.3 (FOR USING WITH APACHE2)

TO CHECK PHP RUNNING ON APACHE2 OR NOT

vi /var/www/html/phpinfo.php

<?php
phpinfo();
?>

:wq

GO TO THE LINK : HTTP://YOUR\_PUBLIC\_IP/phpinfo.php
```

5. INSTALL PHPMYADMIN

```
sudo apt install phpmyadmin php-mbstring php-gettext
```

```
choose apache2
```

```
Yes dbconfig-common
```

```
Yes Authenticating Password
```

```
sudo phpenmod mbstring
```

```
sudo systemctl restart apache2
```

```
sudo mariadb
```

```
CREATE USER 'anan'@'localhost' IDENTIFIED BY 'YOUR_PASSWORD';
```

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

```
exit
```

IF YOU CAN'T ACCESS TO [HTTP://PUBLIC_IP/PHPMYADMIN](http://PUBLIC_IP/PHPMYADMIN)

```
sudo vi /etc/apache2/apache2.conf
```

ADD THIS LINE THERE

```
Include /etc/phpmyadmin/apache.conf
```

RESTART APACHE

```
/etc/init.d/apache2 restart
```

6. INSTALL SSL FOR YOUR DOMAIN

YOU CAN GET FREE SSL FROM [SSLFORFREE.COM](https://www.sslforfree.com)

ATTACH CRT AND KEY FILES FOR SSL IN /VAR/WWW/ DIRECTORY

```
vi /etc/apache2/sites-enabled/000-default.conf
```

ADD THIS CODE FOR YOUR DOMAIN (I USED FOR KHANAN.TK) IN /ETC/APACHE2/SITES-ENABLED/000-DEFAULT.CONF

```
<VirtualHost *:443>
```

```
    ServerAdmin anan@localhost
```

```
    DocumentRoot /var/www/html/khanan.tk
```

```
    ServerName khanan.tk
```

```
    SSLEngine On
```

```
    SSLCertificateFile /var/www/certificate.crt
```

```
    SSLCertificateKeyFile /var/www/private.key
```

```
    SSLCertificateChainFile /var/www/ca_bundle.crt
```

```
    ErrorLog /var/www/error.log
```

```
    CustomLog /var/www/access.log combined
```

```
</VirtualHost>
```

6. ENABLE SSL FOR APACHE

```
sudo mkdir /etc/apache2/ssl
```

```
sudo openssl req -x509 -nodes -days 1095 -newkey rsa:2048 -out
```

```
/etc/apache2/ssl/server.crt -keyout /etc/apache2/ssl/server.key
```

IT WILL ASK SOME QUESTIONS, COMMON NAME SHOULD BE A DOMAIN NAME

```
sudo a2enmod ssl
```

```
sudo ln -s /etc/apache2/sites-available/default-ssl.conf /etc/apache2/sites-enabled/000-default-ssl.conf
```

```
sudo vi /etc/apache2/sites-enabled/000-default-ssl.conf
```

ADD THESE LINE THERE

```
SSLCertificateFile    /etc/apache2/ssl/server.crt
SSLCertificateKeyFile /etc/apache2/ssl/server.key
```

7. CONFIGURE VIRTUALHOST

TO KNOW THE CONFIGURATION

```
sudo apache2ctl -S
cd /etc/apache2/sites-available/
sudo a2ensite *
sudo service apache2 restart

sudo vi /etc/apache2/sites-enabled/khanan.tk.conf

<VirtualHost *:80>
    ServerName khanan.tk
    DocumentRoot /var/www/html/khanan.tk
</VirtualHost>
```

FILE SYSTEM IN /ETC/APACHE2/SITES-ENABLED/

```
drwxr-xr-x 2 root root 4096 May  6 23:28 .
drwxr-xr-x 9 root root 4096 May  6 21:52 ..
lrwxrwxrwx 1 root root   35 May  6 22:34 default-ssl.conf -> ../sites-
available/default-ssl.conf
lrwxrwxrwx 1 root root   33 May  6 22:36 hordor.tk.conf -> ../sites-
available/hordor.tk.conf
lrwxrwxrwx 1 root root   33 May  6 22:35 khanan.tk.conf -> ../sites-
available/khanan.tk.conf
```

TO USE HTACCESS ADDING THIS /ETC/APACHE2/APACHE.CONF:

```
<Directory /var/www/html>
    Options Indexes FollowSymLinks MultiViews
    AllowOverride All
    Require all granted
</Directory>
```