Raspberry Pi 3 B+ Network Server | Django - Apache - Python - SSH

hosting and serving a Django project on Raspberry Pi using local network and Apache.

Get IP Address of your PI

$ hostname -I

192.168.137.154

Activate SSH

$ sudo service ssh start

$ sudo raspi-config

Select Interfacing Options

Select SSH

Enable SSH by selecting YES

Go to Finish

To SSH from Ubuntu WSL in windows

ssh pi@192.168.137.154

### Apache2 + Django

Install Apache2

sudo apt-get install apache2 -y

sudo apt-get install libapache2-mod-wsgi-py3

sudo apt-get install libapache2-mod-wsgi # if using Python2

Install Pip & Django

sudo apt-get install python-setuptools python-dev build-essential

sudo easy\_install pip

sudo pip install django==X.Y.Z #where X.Y.Z is the version number

sudo pip install django==1.10.3

sudo pip install virtualenv

Start Django Project

cd ~/

mkdir Dev && cd Dev

mkdir cfehome && cd cfehome

virtualenv -p python3 .

source bin/activate

pip install django==1.10.3

django-admin.py startproject cfehome

mv /home/pi/Dev/cfehome/cfehome /home/pi/Dev/cfehome/src

Apache2 Settings

sudo nano /etc/apache2/sites-available/000-default.conf

Put this in config file

<VirtualHost \*:80>

ServerName www.example.com

ServerAdmin webmaster@localhost

Alias /static /home/pi/Dev/cfehome/static

<Directory /home/pi/Dev/cfehome/static>

Require all granted

</Directory>

<Directory /home/pi/Dev/cfehome/src/cfehome>

<Files wsgi.py>

Require all granted

</Files>

</Directory>

WSGIDaemonProcess cfehome python-path=/home/pi/Dev/cfehome/src:/home/pi/Dev/cfehome/lib/python2.7/site-packages

WSGIProcessGroup cfehome

WSGIScriptAlias / /home/pi/Dev/cfehome/src/cfehome/wsgi.py

ErrorLog ${APACHE\_LOG\_DIR}/error.log

CustomLog ${APACHE\_LOG\_DIR}/access.log combined

</VirtualHost>

Restart Apache

# Restart in two ways:

sudo apachectl restart

sudo service apache2 restart

# Start Apache in two ways:

sudo apachectl start

sudo service apache2 start

# Stop Apache in two ways:

sudo apachectl stop

sudo service apache2 stop

Set Ownership of Database to Pi user for Django

sudo adduser $USER www-data

sudo chown www-data:www-data /home/$USER/Dev/cfehome

sudo chown www-data:www-data /home/$USER/Dev/cfehome/src/db.sqlite3

sudo chmod -R 775 ~/Dev/cfehome

# if above fails, try (thanks Saykat!):

sudo chown -R www-data:www-data ~/Dev/cfehome

sudo chown www-data:www-data /home/pi/Dev/cfehome/src

# or if a new project

sudo chown -R www-data:www-data ~/Dev/<your-virtuaenv-name>

sudo chown www-data:www-data /home/pi/Dev/<your-virtuaenv-name>/src/