

1 INSTALL SOME ESSENTIAL STUFF

```
apt update
apt upgrade
apt install git virtualenv nginx-light python3-pillow
```

2 CREATE USER AND GROUP

```
adduser --system --home=/var/opt/$DJANGO_PROJECT \
--no-create-home --disabled-password --group \
--shell=/bin/bash $DJANGO_USER
```

3 INSTALL DJANGO FILES AND VIRTUALENV

```
cd /opt
git clone $DJANGO_PROJECT_REPOSITORY
virtualenv --system-site-packages \
--python=$PYTHON_EXECUTABLE /opt/$DJANGO_PROJECT/venv
source /opt/$DJANGO_PROJECT/venv/bin/activate
pip install -r /opt/$DJANGO_PROJECT/requirements.txt
```

4 CREATE DATA AND LOG DIRECTORIES

```
mkdir /var/opt/$DJANGO_PROJECT
chown $DJANGO_USER /var/opt/$DJANGO_PROJECT
mkdir /var/log/$DJANGO_PROJECT
chown $DJANGO_USER /var/log/$DJANGO_PROJECT
```

5 SETUP PRODUCTION SETTINGS

```
mkdir /etc/opt/$DJANGO_PROJECT
chgrp $DJANGO_GROUP /etc/opt/$DJANGO_PROJECT
chmod 750 /etc/opt/$DJANGO_PROJECT
# Then create /etc/opt/$DJANGO_PROJECT/settings.py:
```

```
from $DJANGO_PROJECT.settings import *

DEBUG = False
ALLOWED_HOSTS = ['$DOMAIN', 'www.$DOMAIN']
SECRET_KEY = '$SECRET_KEY'
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.sqlite3',
        'NAME': '/var/opt/$DJANGO_PROJECT/$DJANGO_PROJECT.db',
    }
}
STATIC_ROOT = '/var/cache/$DJANGO_PROJECT/static/'
STATIC_URL = '/static/'
MEDIA_ROOT = '/var/opt/$DJANGO_PROJECT/media/'
MEDIA_URL = '/media/'

SERVER_EMAIL = 'noreply@$DOMAIN'
DEFAULT_FROM_EMAIL = 'noreply@$DOMAIN'
ADMINS = [
    ('$ADMIN_NAME', '$ADMIN_EMAIL_ADDRESS'),
]
EMAIL_HOST = '$EMAIL_HOST'
EMAIL_HOST_USER = '$EMAIL_USER'
EMAIL_HOST_PASSWORD = '$EMAIL_PASSWORD'
EMAIL_PORT = 587
EMAIL_USE_TLS = True
```

DIRECTORY SCHEME

Program files	/opt/\$DJANGO_PROJECT
Virtualenv	/opt/\$DJANGO_PROJECT/venv
SQLite database	/var/opt/\$DJANGO_PROJECT/\$DJANGO_PROJECT.db
Media files	/var/opt/\$DJANGO_PROJECT/media
Static files	/var/cache/\$DJANGO_PROJECT/static
Log files	/var/log/\$DJANGO_PROJECT
Configuration	/etc/opt/\$DJANGO_PROJECT

6 COLLECT STATIC FILES AND MIGRATE

```
export PYTHONPATH=/etc/opt/$DJANGO_PROJECT
export DJANGO_SETTINGS_MODULE=settings
cd /opt/$DJANGO_PROJECT
./manage.py collectstatic
su $DJANGO_USER -c 'venv/bin/python manage.py migrate'
```

7 CONFIGURE NGINX

```
# Create /etc/nginx/sites-available/$DOMAIN:
```

```
server {
    listen 80;
    listen [::]:80;
    server_name $DOMAIN www.$DOMAIN;
    root /var/www/$DOMAIN;
    location / {
        proxy_pass http://localhost:8000;
        proxy_set_header Host $http_host;
    }
    location /static/ {
        alias /var/cache/$DJANGO_PROJECT/static/;
    }
    location /media/ {
        alias /var/opt/$DJANGO_PROJECT/media/;
    }
}
```

```
cd /etc/nginx/sites-enabled
ln -s ../sites-available/$DOMAIN .
service nginx reload
```

8 SETUP GUNICORN

```
pip install gunicorn
# Create /etc/systemd/system/$DJANGO_PROJECT.service:
```

```
[Unit]
Description=$DJANGO_PROJECT

[Service]
User=$DJANGO_USER
Group=$DJANGO_GROUP
WorkingDirectory=/opt/$DJANGO_PROJECT
Environment="PYTHONPATH=/etc/opt/$DJANGO_PROJECT"
Environment="DJANGO_SETTINGS_MODULE=settings"
ExecStart=/opt/$DJANGO_PROJECT/venv/bin/gunicorn \
--workers=4 --log-file=/var/log/$DJANGO_PROJECT/gunicorn.log \
--bind=127.0.0.1:8000 --bind=[::]:8000 \
$DJANGO_PROJECT.wsgi:application

[Install]
WantedBy=multi-user.target

systemctl enable $DJANGO_PROJECT
service $DJANGO_PROJECT start
```