Install Nginx, remove default site, create your site

Pre:

Deploy flask app Digital Ocean with Nginx / Gunicorn Ubuntu 16.04.3 LTS is done:

https://www.digitalocean.com/community/tutorials/how-to-serve-flask-applications-with-gunicorn-and-nginx-on-ubuntu-16-04

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Deploying Flask Apps to an Ubuntu Server:

https://www.youtube.com/watch?v=kDRRtPO0YPA

sudo apt-get update

Python 2, sudo apt-get install python-pip python-dev nginx (or just install Nginx)

Python 3,sudo apt-get install python3-pip python3-dev nginx

```
t@ubuntu-512mb-fra1-01:~# sudo apt-get install python-dev python-pip nginx
ding package lists... Done
lding dependency tree
```

Remove default Nginx (I had one more folder to remove)

```
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-enabled# rm webprod
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-enabled# rm default
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-enabled# cd
root@ubuntu-512mb-fra1-01:~# cd /etc/nginx/sites-available/
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-available# ls
ock_default  default  webprod
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-available# rm default
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-available# rm webprod
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-available# ls
ock_default
```

Create a new file for you flask app

```
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-available# sudo touch flask_settings
root@ubuntu-512mb-fra1-01:/etc/nginx/sites-available# ls
ck_default  flask_settings
```

Edit flask settings:

base.html | about.html | flask_settings | index.html | pdf_files

```
server {

    location / {
        # where the request is coming from, nginx will hit here
        # gunicorn is on port 8000
        # passing the same host
        proxy_pass http://127.0.0.1:8000;
        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;


    }
}
```

Make symlink

```
oot@ubuntu-512mb-fra1-01:/etc/nginx/sites-available# cd
oot@ubuntu-512mb-fra1-01:~# sudo ln -s /etc/nginx/sites-available/flask_setting
 /etc/nginx/sites-enabled/flask_settings
oot@ubuntu-512mb-fra1-01:~# cd /etc/nginx/sites-enabled/
oot@ubuntu-512mb-fra1-01:/etc/nginx/sites-enabled# ls
lask_settings
```

Test Nginx configuration before / after etc

```
root@ubuntu-512mb-fra1-01:~/web# sudo nginx -t
nginx: the configuration file /etc/nginx/nginx.conf syntax is ok
nginx: configuration file /etc/nginx/nginx.conf test is successful
root@ubuntu-512mb-fra1-01:~/web#
```

Python 2, sudo pip install virtualenv

Python 3, sudo pip3 install virtualenv

```
root@ubuntu-512mb-fra1-01:~# sudo pip install virtualenv
Collecting virtualenv
```

Create you Flask app:

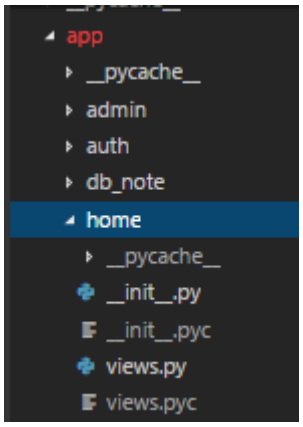
I have used blueprints in __init__.py

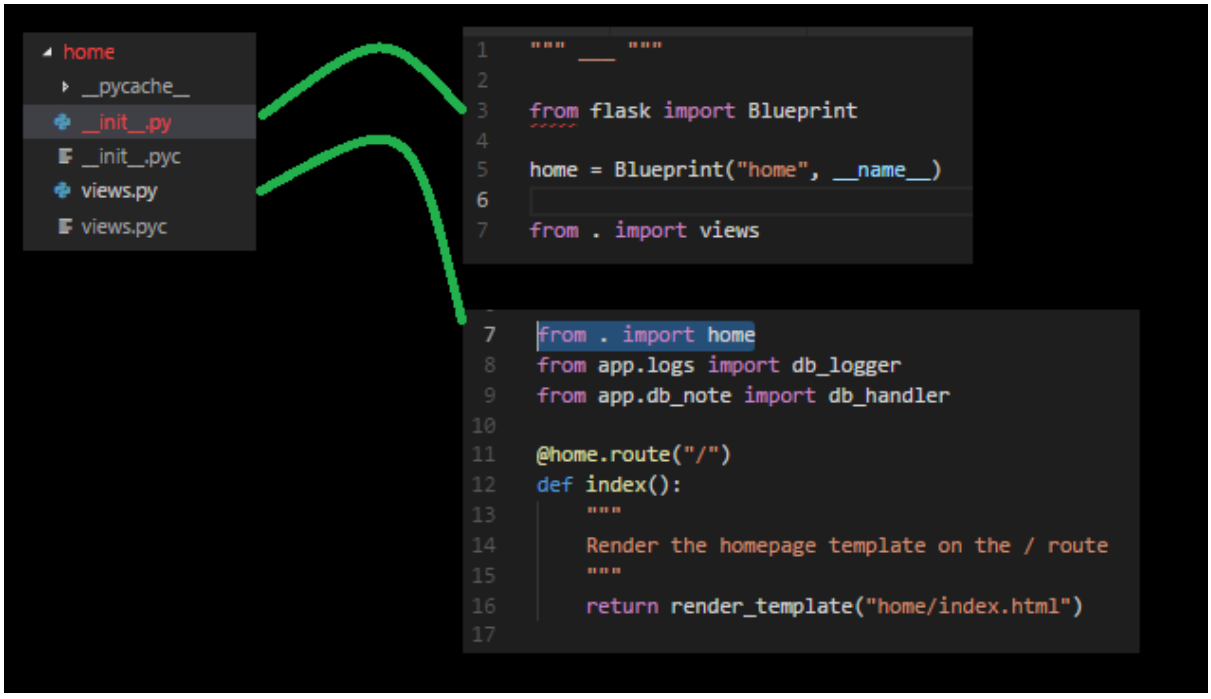
```
def create_app(config_name):
    app = Flask(__name__, instance_relative_config=True)
    app.config.from_object(app_config[config_name]) #object config
    app.config.from_pyfile("config.conf") # instance config

    Bootstrap(app)
    db.init_app(app)
```

Code omitted

```python
from .auth import auth as auth_blueprint
app.register_blueprint(auth_blueprint)

from .home import home as home_blueprint
app.register_blueprint(home_blueprint)

from .note import note as note_blueprint
app.register_blueprint(note_blueprint)

from .tech import tech as tech_blueprint
app.register_blueprint(tech_blueprint)



return app
```

Folder:__init__, views





The app is called from run.py for testing on Linux

Windows is the code that is commented out

root@ubuntu-512mb-fra1-01: ~/web

```
  GNU nano 2.5.3                File: run.py

# run.py

import os
from flask import render_template

from app import create_app

dv = "development"
pr = "production"

app = create_app(dv)

@app.errorhandler(404)
def page_not_found(error):
    return render_template("/error/400.html")



if __name__ == '__main__':
    # for linux
    app.run(host='0.0.0.0')
   # app.run(port=5100)
   # debug should come from config
```

The app is called from wsgi.py for production (gunicorn)

root@ubuntu-512mb-fra1-01: ~/web

```
  GNU nano 2.5.3                File: wsgi.py

from app import create_app
from flask import render_template


dv = "development"
pr = "production"

app = create_app(dv)

@app.errorhandler(404)
def page_not_found(error):
    return render_template("/error/400.html")

if __name__ =="__main__":
   print("\n Success, system path jekl")
   app.run()
```

When you have tested and are ready to host / run the app:

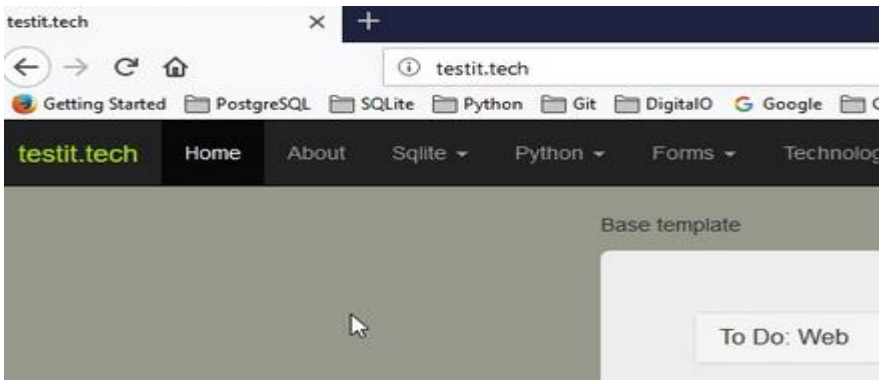
Restart and test Nginx, load activate you env, start gunicorn

sudo service nginx status / stop / start

Here, gunicorn is started with 2 workers

```
 ok ] Restarting nginx (via systemctl): nginx.service.
root@ubuntu-512mb-fra1-01:~/web# source webenv/bin/activate
(webenv) root@ubuntu-512mb-fra1-01:~/web# gunicorn --workers=2 wsgi:app
[2017-12-17 14:32:56 +0000] [1513] [INFO] Starting gunicorn 19.7.1
[2017-12-17 14:32:56 +0000] [1513] [INFO] Listening at: http://127.0.0.1:8000 (1513)
[2017-12-17 14:32:56 +0000] [1513] [INFO] Using worker: sync
[2017-12-17 14:32:56 +0000] [1518] [INFO] Booting worker with pid: 1518
[2017-12-17 14:32:56 +0000] [1519] [INFO] Booting worker with pid: 1519
```

Now visit your IP or domain



Virtual envs

Start in test mode:source webenv/bin/activate

Stop test mode: deactivate

Python

Start in test mode:source webenv/bin/activate

Stop test mode: deactivate

Gunicorn

Create a wsgi.py file with the code

```
from app import app
if __name__ =="__main__":
app.run()
```

The you can perform the following:

Start your env first

(myprojectenv) $ gunicorn --bind 0.0.0.0:port wsgi:app

(myprojectenv) $ deactivate

Templates / Static not loading after SFTP, stop gunicorn and start it again

Linux

sudo lsof -i:port / sudo lsof -i:8000

kill pid

Not finding pid?, pkill gunicorn