

DEPLOYING DJANGO ON HEROKU

1. Install the following using *pip3*:

```
sudo pip3 install gunicorn
sudo pip3 install psycpg2
sudo pip3 install whitenoise
```

2. Add Whitenoise to the middleware inside ***settings.py***

```
MIDDLEWARE = [
    ....
    'whitenoise.middleware.WhiteNoiseMiddleware'
]
```

3. Make sure to include the following settings for static files and uploads, if they are not there already:

```
STATIC_URL = '/static/'
STATICFILES_DIRS = (os.path.join(BASE_DIR, 'static'), )
STATIC_ROOT = os.path.join(BASE_DIR, 'staticfiles')

MEDIA_URL = '/media/'
MEDIA_ROOT = os.path.join(BASE_DIR, 'media')
```

4. If you have **not done so**:
 - a. Create a *static* folder in the workspace (where **manage.py** is) and create an empty text file inside there.
 - b. Create a *staticfiles* folder in the workspace and create an empty text file inside there
 - c. Create a *media* folder in the workspace and create an empty text file inside there.

- d. Remove *media/* from the .gitignore file **temporarily**.
5. Create the *requirements.txt* file using bash

```
pip3 freeze --local > requirements.txt
```

6. Create a local git repo for your project and connect it to a GitHub repo. **Include the relevant .gitignore file.** *If you have not done so. MAKE SURE migrations folder are not excluded!*

```
sudo git init
sudo git add .
sudo git commit -m "First commit"
sudo git remote add origin <GITHUB REMOTE URL>
sudo git push origin master
```

7. Put back *media/* inside .gitignore
8. Log into heroku by typing in `heroku login` and pressing ENTER
9. Create an app (can do it via heroku website, or do it via the command line). If you opt for the command line:

```
heroku create <PROJECT NAME>
git remote -v
```

ADDING POSTGRES SQL

1. Type in:

```
heroku addons:create heroku-postgresql
```

2. Install with pip3:

```
sudo pip3 install dj_database_url
```

3. Check the url of the database:

```
heroku config
```

4. Add the URL to the *database* configurations inside **settings.py**

```
import dj_database_url
# then...
DATABASES = {'default': dj_database_url.parse(<DATABASE_URL_FROM_HEROKU>)}
```

5. Migrate and create the super user

```
python3 manage.py migrate
heroku run python manage.py createsuperuser
```

DEPLOYING

1. Commit the changed files

```
sudo pip3 freeze --local
sudo git add .
git commit -m "<YOUR COMMENT MESSAGE>"
git push origin master
```

2. Create the procfile:

```
touch Procfile
```

3. And enter into the Procfile:

```
web: gunicorn <PROJECT_FOLDER>.wsgi:application
```

4. Add the URL of the heroku app into the ALLOWED_HOST inside settings.py

5. Add and commit

```
sudo git add .  
sudo git push heroku
```

Unit Testing

We still want to use **sqlite3** for **Unit testing**. So inside **settings.py**:

1. Import the sys package

```
import sys
```

2. Paste the following at the bottom of **settings.py**:

```
if 'test' in sys.argv:  
    DATABASES['default'] = {  
        'ENGINE': 'django.db.backends.sqlite3',  
        'NAME': 'mydatabase'  
    }
```

