

Cheatsheet for django deployment on Dreamhost

The website will be demo.uaa490.org. It was configured in Dreamhost with the following parameters:

| | |
|--------------|--------------------------------------|
| host | demo.uaa490.org |
| user | demo490 |
| password | redrover |
| website path | /home/demo490/demo.uaa490.org/public |

The user has ssh access to the machine and runs a bash shell.

Here is the information about the mysql database that has been configured:

| | |
|-------------------|-----------------------|
| host | mysql.demo.uaa490.org |
| database name | dbdemo490 |
| database user | dbuserdemo490 |
| database password | throggenbottom |

You can test that the database has been set up by logging into it from the shell:

```
mysql -u dbuserdemo490 -p -h mysql.demo.uaa490.org dbdemo490
```

So far so good.

We now need to create a virtual environment, download source code from Git, update the settings.py to be in deployment mode, and finally configure the machine to know about the application through the “passenger”.

Step 1. Install/activate Python virtual environment

The virtual environment will be called **venv** and is located in the home directory.

<https://help.dreamhost.com/hc/en-us/articles/115000695551-Installing-and-using-Python-s-virtualenv-using-Python-3>

```
virtualenv -p /usr/bin/python3 ~/venv  
source ~/venv/bin/activate
```

Step 2. Clone the repo and install libraries

Pull the repo into ~/repo

git clone <https://github.com/chezmarcbrown/classdemo-2022-12-08-dreamhost-deployment.git> **repo**

pip install

pip install -r requirements.txt

If dreamhost cannot find the right files, install the key libraries manually:

pip install django

pip install pillow

pip install mysqlclient

Step 3. Configure passenger_wsgi.py

<https://help.dreamhost.com/hc/en-us/articles/360002341572-Creating-a-Django-project>

~/demo.uaa490.org/passenger_wsgi.py:

```
import sys, os
INTERP = "/home/demo490/venv/bin/python3"
if sys.executable != INTERP: os.execle(INTERP, INTERP, *sys.argv)

cwd = os.getcwd()
sys.path.append(cwd)
sys.path.append('/home/demo490/repo')

sys.path.insert(0, '/home/demo490/venv/bin')
sys.path.insert(0, '/home/demo490/venv/lib/python3.6/site-packages')

os.environ['DJANGO_SETTINGS_MODULE'] = "commerce.settings_dreamhost"

from django.core.wsgi import get_wsgi_application
application = get_wsgi_application()
```

~/repo/commerce/settings_dreamhost.py to override settings.py:

```
from .settings import *
```

Need a "restart" file:

```
mkdir ~/demo.uaa490.org/tmp
```

```
touch ~/demo.uaa490.org/tmp/restart.txt
```

Step 4. Fix Settings

> Allow access to app. In `settings_dreamhost.py`, add:

```
ALLOWED_HOSTS = ['www.demo.uaa490.org', 'demo.uaa490.org']
```

> Touch `restart.txt`!

> Migrate the database (using the default `sqlite`):

```
cd ~/repo
```

```
python3 manage.py migrate --settings=commerce.settings_dreamhost
```

> Make static files available. In `settings_dreamhost.py`, add:

```
STATIC_ROOT = '/home/demo490/demo.uaa490.org/public/static/'
```

```
mkdir ~/demo.uaa490.org/public/static
```

```
python manage.py collectstatic --settings=commerce.settings_dreamhost
```

> Make uploaded files available. In `settings_dreamhost.py`, add:

```
MEDIA_ROOT = '/home/demo490/demo.uaa490.org/public/media/'
```

Step 5. Run django's deployment checker:

> Use a `mysql` database. In `settings_dreamhost.py`, add:

```
DATABASES = {  
    'default': {  
        'ENGINE': 'django.db.backends.mysql',  
        'NAME': 'dbdemo490',  
        'USER': 'dbuserdemo490',  
        'PASSWORD': 'throggenbottom',  
        'HOST': 'mysql.demo.uaa490.org',  
        'PORT': '3306',  
    }  
}
```

> touch `restart.txt` (as usual)....

> migrate to the new database, as before:

```
cd ~/repo
```

```
python3 manage.py migrate --settings=commerce.settings_dreamhost
```

Step 6. Run django's deployment checker:

```
python3 manage.py check --deploy --settings=commerce.settings_dreamhost
```

```
> make fixes; touch restart.txt (as usual)...
```

```
#SECURE_HSTS_SECONDS = 360
```

```
SECURE_SSL_REDIRECT = True
```

```
SESSION_COOKIE_SECURE = True
```

```
CSRF_COOKIE_SECURE = True
```

Step 7. Move sensitive values to .env file

<https://alicecampkin.medium.com/how-to-set-up-environment-variables-in-django-f3c4db78c55f>

```
pip install django-environ
```

commerce/.env (whitespace matters!):

```
DATABASE_NAME=dbdemo490
```

```
DATABASE_USER=dbuserdemo490
```

```
DATABASE_PASSWORD=throggenbottom
```

commerce/settings_dreamhost.py:

```
import environ
```

```
env = environ.Env()
```

```
environ.Env.read_env()
```

```
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.mysql',
        'NAME': env('DATABASE_NAME'),
        'USER': env('DATABASE_USER'),
        'PASSWORD': env('DATABASE_PASSWORD'),
        'HOST': 'mysql.demo.uaa490.org',
        'PORT': '3306',
    }
}
```

D1. Dreamhost: Create domain

Host: demo.uaa490.org

New user: demo490

Web directory: [~/demo.uaa490.org/public](http://~demo.uaa490.org/public)

Passenger: enabled

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(Upload your site to our servers and we'll serve it up!)

Domain name

Domain to host:

demo.uaa490.org

sub-domains are okay!

Do you want the www in your URL?

☐ Leave it alone: Both `http://www.demo.uaa490.org/` and `http://demo.uaa490.org/` will work.

☒ Add WWW: Make `http://demo.uaa490.org/` redirect to `http://www.demo.uaa490.org/`

☐ Remove WWW: Make `http://www.demo.uaa490.org/` redirect to `http://demo.uaa490.org/`

Users, Files, and Paths

Run this domain under the user:

Create a New User (Recommended)

demo490 on clackamas

This user will have access to the domain's files and will run the web apps on this domain.

Web directory:

/home/username/ demo.uaa490.org/public

Logs directory:

/home/username/logs/demo.uaa490.org/http

Web Options

PHP mode:

PHP 8.0 FastCGI (Recommended)

Extra Web Security?

☒

(highly recommended - what's this?)

Passenger (Ruby/NodeJS/Python apps only):

☒

(what's this?)

RVM:

☐ requires a VPS or dedicated server running a recent OS version

Please provide your custom path.

NodeJS:

☐

Fully host this domain

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"demo.uaa490.org" has been added to our hosting system!

Since it takes some time for new DNS information to propagate, it may take up to a few hours for your new subdomain to start working.

Right now no email addresses have been set up yet @demo.uaa490.org. You can do that from our "[Mail > Manage Email](#)" area at any time.

Within ten minutes the new SFTP user **demo490** on **clackamas.dreamhost.com** will be created with password **3faVdKRu ...**. If you'd like to change the name, shell type, password, or anything else about this user, feel free to do so [here!](#)

Also, uaa490.org must be using our nameservers to work:

| | |
|-------------------|---------------|
| NS1.DREAMHOST.COM | 162.159.26.14 |
| NS2.DREAMHOST.COM | 162.159.26.81 |
| NS3.DREAMHOST.COM | 162.159.27.84 |

Thanks for choosing us.
The Happy DreamHost Domain Adding Robot!

[Add Hosting to a Domain / Sub-Domain](#)
[Register a New Domain](#)

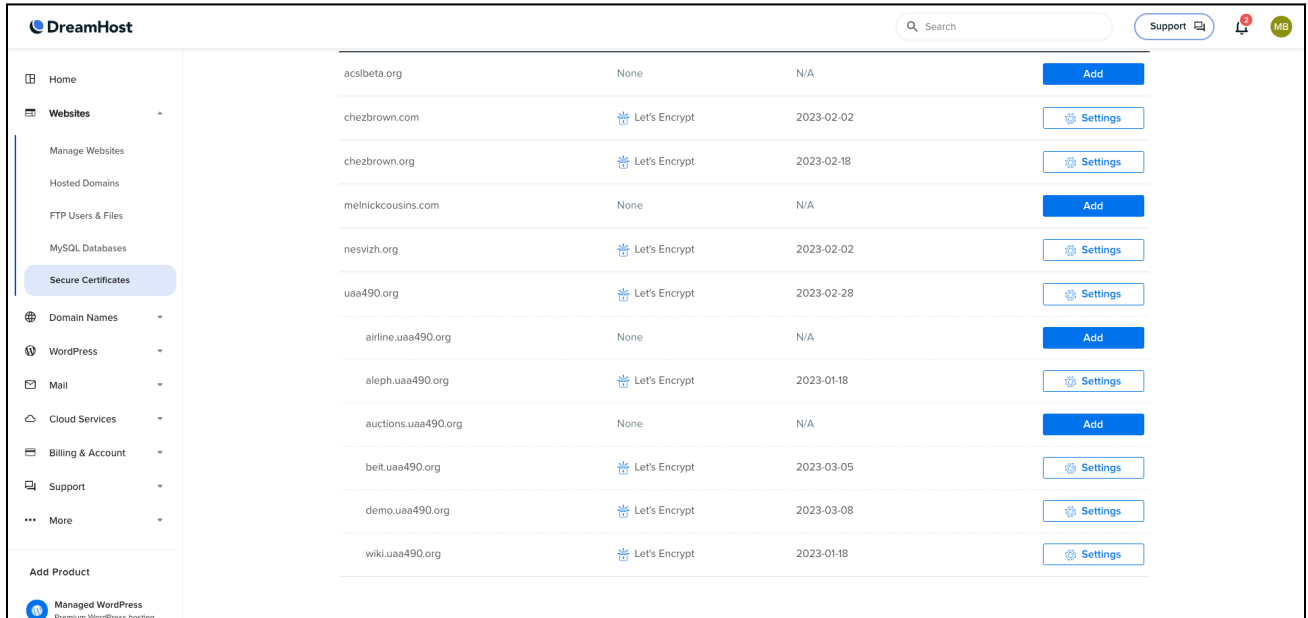
Hosted Domains

Subdomains:

☒ Hide
 ☐ Show

| DOMAIN | REGISTRATION | WEB HOSTING | SECURITY | EMAIL | ACTIONS |
|--|-------------------------|--|---|-----------------------------|--|
| acslbeta.org DNS Visit UniqueIP | Unknown | parked Edit Deactivate parked | HTTPS Not Secure | 0 Addresses | Delete |

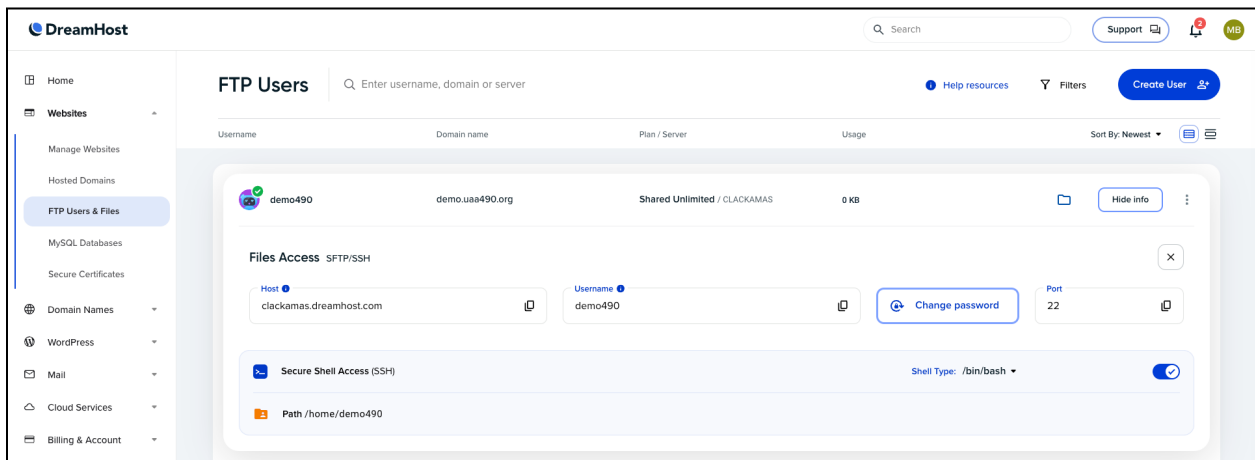
D2. Dreamhost: Configure https



| Domain | SSL Status | Expiration Date | Action |
|---------------------|---------------|-----------------|--------------------------|
| acslbeta.org | None | N/A | Add |
| chezbrown.com | Let's Encrypt | 2023-02-02 | Settings |
| chezbrown.org | Let's Encrypt | 2023-02-18 | Settings |
| melnickcousins.com | None | N/A | Add |
| nesvizh.org | Let's Encrypt | 2023-02-02 | Settings |
| uaa490.org | Let's Encrypt | 2023-02-28 | Settings |
| airline.uaa490.org | None | N/A | Add |
| aleph.uaa490.org | Let's Encrypt | 2023-01-18 | Settings |
| auctions.uaa490.org | None | N/A | Add |
| beil.uaa490.org | Let's Encrypt | 2023-03-05 | Settings |
| demo.uaa490.org | Let's Encrypt | 2023-03-08 | Settings |
| wiki.uaa490.org | Let's Encrypt | 2023-01-18 | Settings |

D3. Dreamhost: Configure user

Allow ssh access; assign password or remember the default password



FTP Users

| Username | Domain name | Plan / Server | Usage |
|----------|-----------------|------------------------------|-------|
| demo490 | demo.uaa490.org | Shared Unlimited / CLACKAMAS | 0 KB |

Files Access SFTP/SSH

Host: clackamas.dreamhost.com

Username: demo490

Port: 22

Secure Shell Access (SSH): ☒ Shell Type: /bin/bash

Path: /home/demo490

D4. localhost: configure ssh for no password

marchbrown@MacBook16-2 ~ % **ssh-copy-id demo490@demo.uaa490.org**

/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/Users/marchbrown/.ssh/id_rsa.pub"

/usr/bin/ssh-copy-id: INFO: attempting to log in with the new key(s), to filter out any that are already installed

/usr/bin/ssh-copy-id: INFO: 1 key(s) remain to be installed -- if you are prompted now it is to install the new keys

demo490@demo.uaa490.org's password:

Number of key(s) added: 1

Now try logging into the machine, with: `"ssh 'demo490@demo.uaa490.org'"`
and check to make sure that only the key(s) you wanted were added.
marcbrown@MacBook16-2 ~ %

D6. host: Create mysql database

Host: mysql.demo.uaa490.org

Database name: dbdemo490

User: dbuserdemo490

Password: throggenbottom

The screenshot shows the DreamHost MySQL Recycle Bin page. The left sidebar contains navigation links: Home, Websites, Manage Websites, Hosted Domains, FTP Users & Files, MySQL Databases (selected), Secure Certificates, Domain Names, WordPress, Mail, Cloud Services, Billing & Account, Support, and More. The main content area has a blue header 'MySQL Recycle Bin' with a sub-header '(Restore a database you deleted before it gets purged from the recycle bin. Purging can take 30 or more days, during which you will be unable to reuse the same database name.)'. Below this is the 'Create a New MySQL Database' form. The form fields are: Database Name (dbdemo490), Use Hostname (Create a new hostname now...), New Hostname (mysql, demo.uaa490.org), First User (Create a new user now...), New Username (dbuserdemo490), New Password (masked with asterisks, with a 'Good' status indicator), and New Password Again (masked with asterisks). There is also a 'Database Comment' field. A blue button 'Add new database now!' is at the bottom.

The screenshot shows the DreamHost MySQL Recycle Bin page after the database has been created. The left sidebar is the same as the previous screenshot. The main content area has a blue header 'MySQL Recycle Bin' with the same sub-header. Below this is a large light blue box with the following text: 'Your database "dbdemo490" has been created!', 'Your hostname "mysql.demo.uaa490.org" will be set up within about 5-10 minutes. You MUST always use your hostname to connect to your database... "localhost" WILL NOT WORK.', and 'Connect to your new database from the command line with: `mysql -u dbuserdemo490 -p -h mysql.demo.uaa490.org dbdemo490`. You can also go to <http://mysql.demo.uaa490.org/> to manage your MySQL database from the web (once the hostname is set up of course).