

# Cheatsheet for DJANGO deployment on Dreamhost

## Step 1a. Create domain

The website will be `deals.uaa490.org`. It is configured in Dreamhost with the following parameters:

host	<code>deals.uaa490.org</code>
user	<code>deals490</code>
password	<code>redrover490</code>
website path	<code>/home/deals490/deals.uaa490.org/public</code>

The user has ssh access to the machine and runs a bash shell. Enable passenger on the domain.

## Step 1b. Create mysql database

Here is the information about the mysql database to configure in Dreamhost:

host	<code>mysql.deals.uaa490.org</code>
database name	<code>dbdeals490</code>
database user	<code>dbuserdeals490</code>
database password	<code>throggenbottom</code>

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

```
mysql -u dbuserdeals490 -p -h mysql.deals.uaa490.org dbdeals490
```

So far so good.

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

## Step 2. 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 3. Clone the repo and install libraries

*Pull the repo into ~/repo*

```
git clone https://github.com/chezmarcbrown/2023-assignment4-eBayLite-solution.git repo
```

```
pip install
pip install -r requirements.txt
```

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

```
pip install django
pip install pillow
pip install mysqlclient
pip install django-environ
```

## Step 4. Configure passenger\_wsgi.py

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

```
cd ~/deals.uaa490.org/
ln -s ~/repo/passenger_wsgi.py
```

```
import sys, os
h="/home/deals490"

INTERP = h+"/venv/bin/python3"
if sys.executable != INTERP: os.execl(INTERP, INTERP, *sys.argv)

sys.path.append(os.getcwd())
sys.path.append(h+"/repo")
sys.path.insert(0,h+"/venv/bin")
sys.path.insert(0,h+"/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 5. Fix Settings

> Try to run by visiting *deals.uaa490.org*.

> Allow access to app. In *settings\_dreamhost.py*, add:

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

> Touch *restart.txt*!

> Migrate the database (using the default *sqlite*), if necessary:

```
cd ~/repo  
python3 manage.py migrate --settings=commerce.settings_dreamhost
```

> Make static files available. In *settings\_dreamhost.py*, add:

```
STATIC_ROOT = '/home/deals490/deals.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/deals490/deals.uaa490.org/public/media/'  
cp -r ~/repo/media ~/demo.uaa490.org/public/
```

## Step 6. Run django's deployment checker:

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

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

```
#SECURE_HSTS_SECONDS = 360  
#SECURE_HSTS_PRELOAD = 360  
#SECURE_HSTS_INCLUDE_SUBDOMAINS = 360
```

```
SECURE_SSL_REDIRECT = True
```

```
SESSION_COOKIE_SECURE = True
CSRF_COOKIE_SECURE = True
DEBUG = False
```

## Step 7. Replace sqlite with mysql database:

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

```
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.mysql',
        'NAME': 'dbdeals490',
        'USER': 'dbuserdeals490',
        'PASSWORD': 'throggenbottom',
        'HOST': 'mysql.deals.uaa490.org',
        'PORT': '3306',
    }
}
```

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

> migrate to the new database, as before:

**cd ~/repo**

**python manage.py migrate --settings=commerce.settings\_dreamhost**

## Step 8. Move sensitive values to .env file

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

pip install django-environ

**commerce/dot-env** (rename when deployed to .env)

DATABASE\_NAME=dbdeals490

DATABASE\_USER=dbuserdeals490

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.deals.uaa490.org',  
    'PORT': '3306',  
}  
}
```

```
Host: demo.uaa490.org
New user: demo490
Web directory: ~/demo.uaa490.org/public
Passenger: enabled
```

Host: demo.uaa490.org

New user: demo490

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

Passenger: enabled

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Fully Hosted

(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

**DreamHost**

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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!

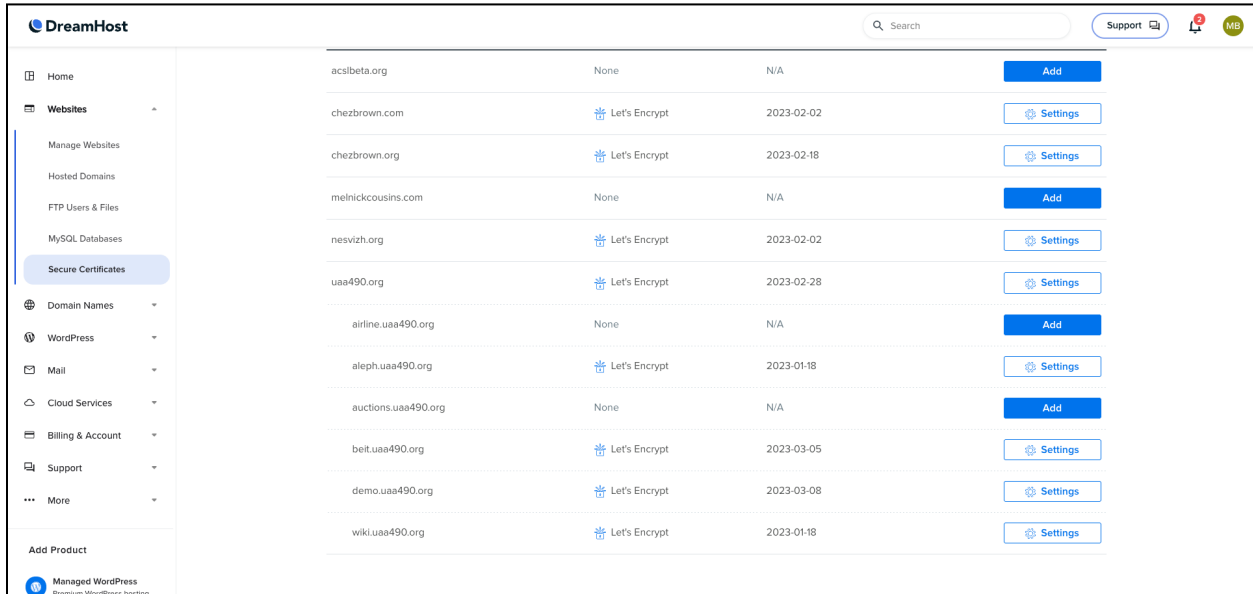
[Add Hosting to a Domain / Sub-Domain](#)
[Register a New Domain](#)

## Hosted Domains

Subdomains: Hide Show

DOMAIN	REGISTRATION	WEB HOSTING	SECURITY	EMAIL	ACTIONS
acslbeta.org <a href="#">DNS   Visit   UniqueIP</a>	<a href="#">Unknown</a>	parked <a href="#">Edit   Deactivate parked</a>	<span style="color: red;">HTTPS Not Secure</span>	<a href="#">0 Addresses</a>	<a href="#" style="color: red;">Delete</a>

## D2. Dreamhost: Configure https

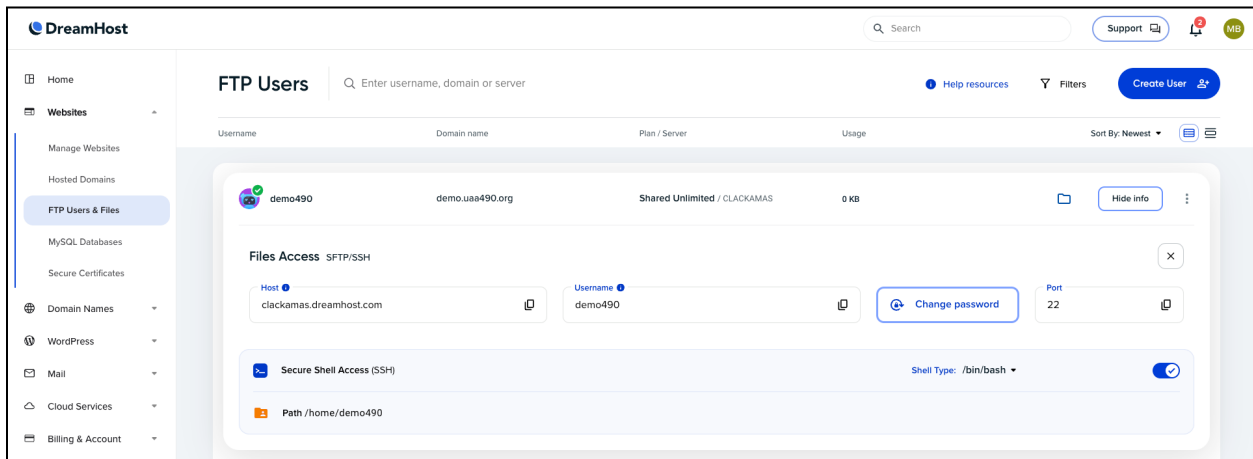


The screenshot shows the DreamHost dashboard with the 'Secure Certificates' section selected in the left sidebar. The main area displays a table of domains and their SSL certificate status.

Domain	Certificate Status	Expiration Date	Action
acsbeta.org	None	N/A	<a href="#">Add</a>
chezbrown.com	Let's Encrypt	2023-02-02	<a href="#">Settings</a>
chezbrown.org	Let's Encrypt	2023-02-18	<a href="#">Settings</a>
meilnickcousins.com	None	N/A	<a href="#">Add</a>
nesvizh.org	Let's Encrypt	2023-02-02	<a href="#">Settings</a>
uaa490.org	Let's Encrypt	2023-02-28	<a href="#">Settings</a>
airline.uaa490.org	None	N/A	<a href="#">Add</a>
aleph.uaa490.org	Let's Encrypt	2023-01-18	<a href="#">Settings</a>
auctions.uaa490.org	None	N/A	<a href="#">Add</a>
beil.uaa490.org	Let's Encrypt	2023-03-05	<a href="#">Settings</a>
demo.uaa490.org	Let's Encrypt	2023-03-08	<a href="#">Settings</a>
wiki.uaa490.org	Let's Encrypt	2023-01-18	<a href="#">Settings</a>

## D3. Dreamhost: Configure user

Allow ssh access; assign password or remember the default password



The screenshot shows the DreamHost dashboard with the 'FTP Users' section selected in the left sidebar. The main area displays the configuration for the 'demo490' user.

**FTP Users** | Search: Enter username, domain or server | Help resources | Filters | Create User

Username	Domain name	Plan / Server	Usage	Sort By: Newest
demo490	demo.uaa490.org	Shared Unlimited / CLACKAMAS	0 KB	

**Files Access SFTP/SSH**

Host: clackamas.dreamhost.com | Username: demo490 | Change password | Port: 22

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

**Path** /home/demo490

## D4. localhost: configure ssh for no password

```
marcbrown@MacBook16-2 ~ % ssh-copy-id demo490@demo.uaa490.org
/usr/bin/ssh-copy-id: INFO: Source of key(s) to be installed: "/Users/marcbrown/.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 'MySQL Recycle Bin' header with a note about restoring deleted databases. 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, marked as 'Good'), New Password Again (masked with asterisks), and Database Comment (Optional - for your own organizational use). A blue button at the bottom says 'Add new database now!'.

The screenshot shows the DreamHost MySQL Recycle Bin page after the database has been created. The main content area displays a success message: 'Your database "dbdemo490" has been created!'. It also states: '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.' Below this, it provides the command line connection instructions: 'Connect to your new database from the command line with: mysql -u dbuserdemo490 -p -h mysql.demo.uaa490.org dbdemo490' and a link to the web management interface: '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)'.