**\*\*\* This guide is done on a Mac with Python version 3.11, Django version 4.2 \*\*\***

cd "/Users/naomirodriguez/Documents/Past UCCS Classes/Spring 2024/CS 3300 Intro to Software Engineering/cs3300"

**Django Portfolio App Set-Up**

**2.1 Create Virtual Environment and Django Project**

Check your python version:

python3 —version



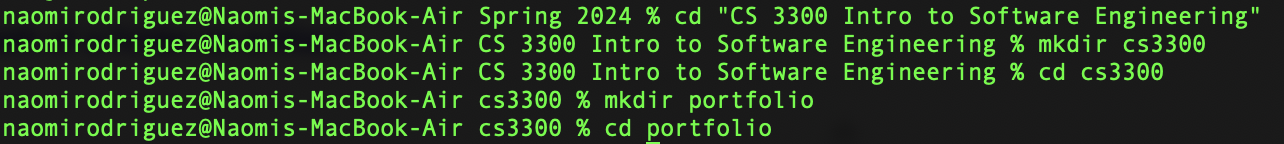
Create a cs3300 and a portfolio folder in your location of choice:

**mkdir cs3300**

**cd cs3300**

**mkdir portfolio**

**cd portfolio**



Create and activate virtual environment:

**python3 -m venv djvenv**

**source djvenv/bin/activate**

Install Django version 4.2 in virtual environment and confirm installation:

**pip install Django==4.2**

**python -m django —version**

A computer screen with green text

Description automatically generated

Upgrade pip:

**python3 -m pip install —upgrade pip**

A computer screen with green text

Description automatically generated

Create django project:

**django-admin startproject django\_project**

Reformat the directory:

**mv django\_project/manage.py ./**

**mv django\_project/django\_project**

**rm -r django\_project/django\_project/**

Should go from portfolio -> django\_project, djvenv -> bin, include, etc…

A screenshot of a computer

Description automatically generated

Run server, ignore migration warnings:

**python manage.py runserver**

A screen shot of a computer program

Description automatically generated

Check to see if installation worked by going to <http://localhost:8000/>

A screenshot of a computer

Description automatically generated

Open multiple terminal tabs

*\*\* Tip: \*\**

*- On Mac shortcut to open multiple tabs:*

*cmd-t*

*I had to recreate and activate venv:*

***python3 -m venv djvenv***

***source djvenv/bin/activate***

Display packages:

**pip list**

Create a requirements.txt file

**pip freeze > requirements.txt**

A black screen with green text

Description automatically generated

*Our team is using PyCharm, make sure you’ve been approved with your student license so you have full access to PyCharm’s features:* [*https://www.jetbrains.com/community/education/#students*](https://www.jetbrains.com/community/education/#students)

In PyCharm go to File —> Open and open the Portfolio folder we created.

A screenshot of a computer

Description automatically generated

**2.2 Create Local Git and GitHub Repository**

Go to GitHub and create a repository separate from the team one

Initialize your local directory/folder and add files to repository:

**git init**

**touch .gitignore** Needed otherwise you’ll get a .DS\_Store error

**git add .**

**git commit -m “Initial Commit”**

Commit changes and link local repository to GitHub repository:

**git remote add origin http://github.com/*username/repository***

Push changes:

**git push -u origin main**

**A screenshot of a computer program

Description automatically generated**

**2.3 Create Portfolio App**

Create and switch to new branch called sprint01:

**git branch sprint01**

**git checkout sprint01**

Activate your virtual environment (back in your portfolio folder):

**source djvenv/bin/activate**

**Django-admin startapp portfolio\_app**

PyCharm now has a portfolio\_app section:

A screenshot of a computer

Description automatically generated

Edit settings.py in the Django\_project folder:

A screen shot of a computer code

Description automatically generated

**2.4 Define URI path and view**

Open django\_project/urls.py and add another path to the patterns:

A screen shot of a computer code

Description automatically generated

Open and update portfolio\_app/views:

A screen shot of a computer

Description automatically generated

Create a urls.py file in portfolio\_app and add the following:

A screenshot of a computer program

Description automatically generated

In your virtual environment,

Run Start server command:

**python manage.py runserver**

A screen shot of a computer program

Description automatically generated

Open [http://127.0.0.1:8000](http://127.0.0.1:8000/) and you should see ‘home page’

A screenshot of a phone

Description automatically generated

Update portfolio\_app/views.py:

A screenshot of a computer

Description automatically generated

Open [http://127.0.0.1:8000](http://127.0.0.1:8000/)

A screenshot of a computer

Description automatically generated

What happened?

* <https://developer.mozilla.org/en-US/docs/Learn/Server-side/Django/Home_page>

**2.5 Create HTML Template**

In PyCharm-

Create a folder called templates in portfolio\_app:

In templates, create a folder called portfolio\_app:

A screenshot of a computer

Description automatically generated

Create a base\_template.html file in the templates/portfolio\_app folder:

A screenshot of a black screen

Description automatically generated

In the base\_template file, paste the following code:

<!DOCTYPE html>  
<html lang="en">  
 <head>  
 <title>UCCS CS Students</title>  
 <meta charset="utf-8">  
 <meta name="viewport" content="width=device-width, initial-scale=1">  
 <title>Bootstrap demo</title>  
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-4bw+/aepP/YC94hEpVNVgiZdgIC5+VKNBQNGCHeKRQN+PtmoHDEXuppvnDJzQIu9" crossorigin="anonymous">  
 </head>  
  
  
 <body>  
 <div class="container-fluid">  
  
  
 <!-- Navbar-->  
 <nav class="navbar navbar-expand-lg bg-body-tertiary">  
 <a class="navbar-brand" href="#">Navbar</a>

<div class="container-fluid">  
 <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNavAltMarkup" aria-controls="navbarNavAltMarkup" aria-expanded="false" aria-label="Toggle navigation">  
 <span class="navbar-toggler-icon"></span>  
 </button>  
 <div class="collapse navbar-collapse" id="navbarNavAltMarkup">  
 <div class="navbar-nav">  
 <!-- {% url 'index' %} is defined in url path to dynamically create url -->  
 <a class="nav-link active" aria-current="page" href="{% url 'index' %}">Home</a>  
 <a class="nav-link" href="#">Menu 2</a>  
 <a class="nav-link" href="#">Menu 3</a>  
 {% if user.is\_authenticated %}  
 <a class="nav-link" href="{% url 'logout' %}?next={{ request.path }}">Logout {{user}}</a>  
 {% else %}  
 <a class="nav-link" href="{% url 'login' %}?next={{ request.path }}">Login</a>  
 {% endif %}  
 </div>  
 </div>  
 </div>  
 </nav>  
  
  
 <div class="col-sm-10">  
 <!-- add block content from html template -->  
 {% block content %}  
 {% endblock %}  
 </div>  
 </div>  
 </div>  
 </body>  
</html>

Create an index.html file in the templates/portfolio\_app folder:

A screenshot of a computer

Description automatically generated

And paste the following code into it:

<!-- inherit from base.html-->  
{% extends "portfolio\_app/base\_template.html" %}  
  
<!-- Replace block content in base\_template.html -->  
{% block content %}  
<h1>Computer Science Portfolios</h1>  
   
<h2>More to come from [and your name goes here]</h2>  
  
{% endblock %}

This will be the home page for the app.

\*\* I did have to modify portfolio\_app/urls.py file otherwise a NoReverseMatch at / Error occurs with line 35 in base\_template.html \*\*

A screenshot of a computer program

Description automatically generated

Remember to have your server running (**python manage.py runserver)**

Open  [http://127.0.0.1:8000](http://127.0.0.1:8000/), you should see your index.html file displayed.

A screenshot of a computer

Description automatically generated

Version and update sprint01 and remote repository (I used git):

A screenshot of a computer

Description automatically generated

**2.6 Add static files**

In your portfolio folder-

Create a static folder:

Create an images folder in the static folder:

Add a logo to the images folder. I used [UCCS logo](https://brand.uccs.edu/sites/g/files/kjihxj1416/files/inline-images/uccs-signature-email.gif):

A screenshot of a computer

Description automatically generated

In the django\_project file-

Open settings.py and add the os library:

A black background with white text

Description automatically generated

Add the following code below the STATIC\_URL = ‘static/’ line:

A screen shot of a computer

Description automatically generated

In base\_template.html, paste:

{% load static %}  
  
  
<!DOCTYPE html>  
<html lang="en">  
 <head>  
 <title>UCCS CS Students</title>  
 <meta charset="utf-8">  
 <meta name="viewport" content="width=device-width, initial-scale=1">  
 <title>Bootstrap demo</title>  
 <link href="https://cdn.jsdelivr.net/npm/bootstrap@5.3.1/dist/css/bootstrap.min.css" rel="stylesheet" integrity="sha384-4bw+/aepP/YC94hEpVNVgiZdgIC5+VKNBQNGCHeKRQN+PtmoHDEXuppvnDJzQIu9" crossorigin="anonymous">  
 </head>  
  
  
 <body>  
 <div class="container-fluid">  
  
  
 <!-- Navbar-->  
 <nav class="navbar navbar-expand-lg bg-body-tertiary">  
 <img src="{% static 'images/uccs\_logo.gif' %}">  
 <div class="container-fluid">  
 <button class="navbar-toggler" type="button" data-bs-toggle="collapse" data-bs-target="#navbarNavAltMarkup" aria-controls="navbarNavAltMarkup" aria-expanded="false" aria-label="Toggle navigation">  
 <span class="navbar-toggler-icon"></span>  
 </button>  
 <div class="collapse navbar-collapse" id="navbarNavAltMarkup">  
 <div class="navbar-nav">  
 <!-- {% url 'index' %} is defined in url path to dynamically create url -->  
 <a class="nav-link active" aria-current="page" href="{% url 'index' %}">Home</a>  
 <a class="nav-link" href="#">Menu 2</a>  
 <a class="nav-link" href="#">Menu 3</a>  
 {% if user.is\_authenticated %}  
 <a class="nav-link" href="{% url 'logout' %}?next={{ request.path }}">Logout {{user}}</a>  
 {% else %}  
 <a class="nav-link" href="{% url 'login' %}?next={{ request.path }}">Login</a>  
 {% endif %}  
 </div>  
 </div>  
 </div>  
 </nav>  
  
  
 <div class="col-sm-10">  
 <!-- add block content from html template -->  
 {% block content %}  
 {% endblock %}  
 </div>  
 </div>  
 </div>  
 </body>  
</html>

The only changes made were the top of the document has {% load static %} and line 21 is replaced with <img src="{% static 'images/uccs\_logo.gif' %}">.

Open [http://127.0.0.1:8000](http://127.0.0.1:8000/) and your logo will be added to the Navbar:

A screenshot of a computer

Description automatically generated