Introduction

In this lab you will be creating your first project in Django and run the server.

Goal

To create a Django project inside a virtual environment

Objectives

Learn how to setup a Django project that will be used for creating Django apps

Execute command to start the project and run the server locally

Learner Instructions

Ensure you are in the directory where you want to create your project.

This lab mainly deals with the command line inside the VS Code console present. If not open, go to **Terminal** on your Menu bar at the top of your screen and select **New Terminal**. Add the commands below inside the command line
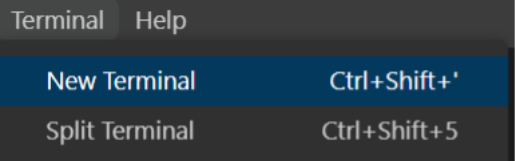
Follow the instructions below and make sure you check the output at every step:

Note: You are present inside the working directory created for setting up your Django project.

Note: Since this is the first lab in the course, we are going to first setup virtual environment inside our shell and then install Django and setup our Django project.

Before performing the instructions, create a directory called **workplace** by clicking on the **New Folder** option besides PROJECT folder as shown in the image.
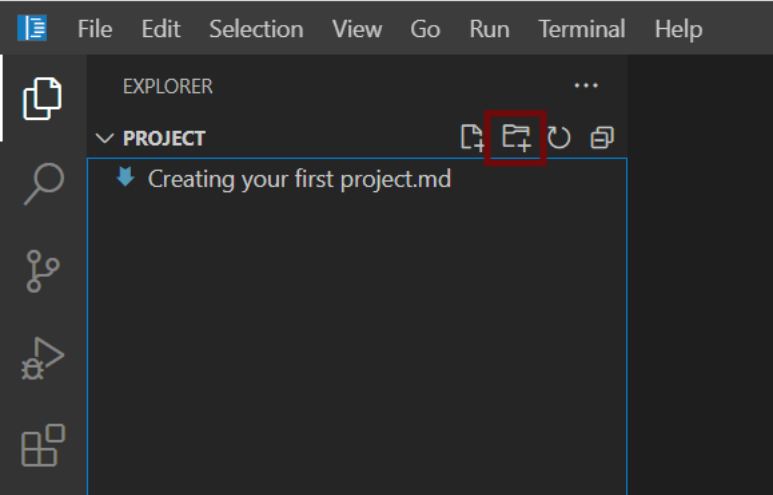
Perform all the below instructions inside the workplace directory. Check if you are in the workplace directory, if not run the change directory command to go inside the dire

```
1    cd workplace
```

Steps

Step 1:

Install the virtual environment if it is not already installed by running the command using pip:

```
1    pip3 install virtualenv
```

Step 2:

Now add the following command inside the terminal window:

```
1    ~/.local/bin/virtualenv django-venv
```

Step 3:

Activate the virtual environment by running the following command:

```
1    source django-venv/bin/activate
```

Note: django-venv is the name of the virtual environment. You can tell that the virtual environment is activated if you see the suffix inside round brackets **(django-venv)** on the command prompt.

Step 4:

Make sure you have Django installed. Use **pip3** to run the following command to install Django.

```
1    pip3 install django
```

You are now ready to use Django and create your first Django project.

Step 5:

Run the command to start, or set up a project called **myproject**.

Note: Once you run the command to start the project **myproject,** check if the **myproject** directory is created inside the project directory from the explorer panel on the left side of VS Code.

Step 6:

Step inside the project directory by typing the following command.

```
1   cd myproject
```

Step 7:

Run the command to create an app called **myapp** using the script from **manage.py.**

Step 8:

Once again, run the command to start the Django development server using the script from **manage.py.**

Step 9:

Finally, the command prompt will generate some text including a link for the localhost URL such as `http://127.0.0.1:8000/`.

Note: You may notice a warning message stating `You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.`
It's safe to ignore this warning for the moment. You will implement this step in a future lab.

```
You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, a
uth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
```

Additional step:

Click on the **Browser Preview** option inside the explorer panel in VS Code.
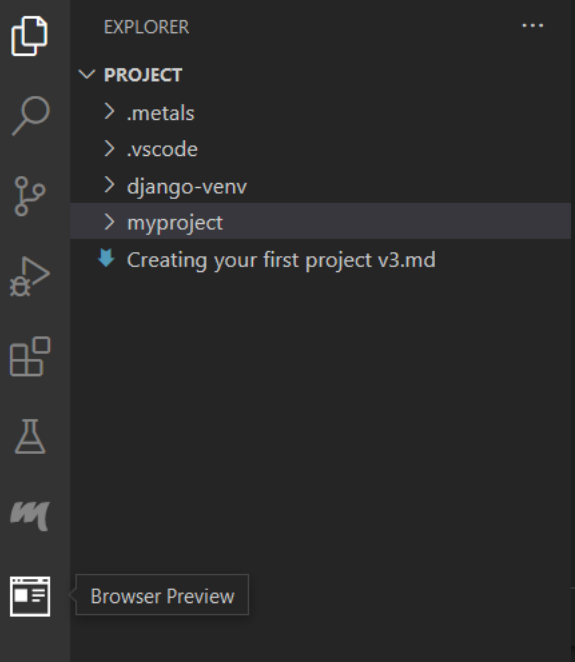
Next, copy the URL `http://127.0.0.1:8000/` and paste it inside the **Browser Window** that has opened inside the VS Code.
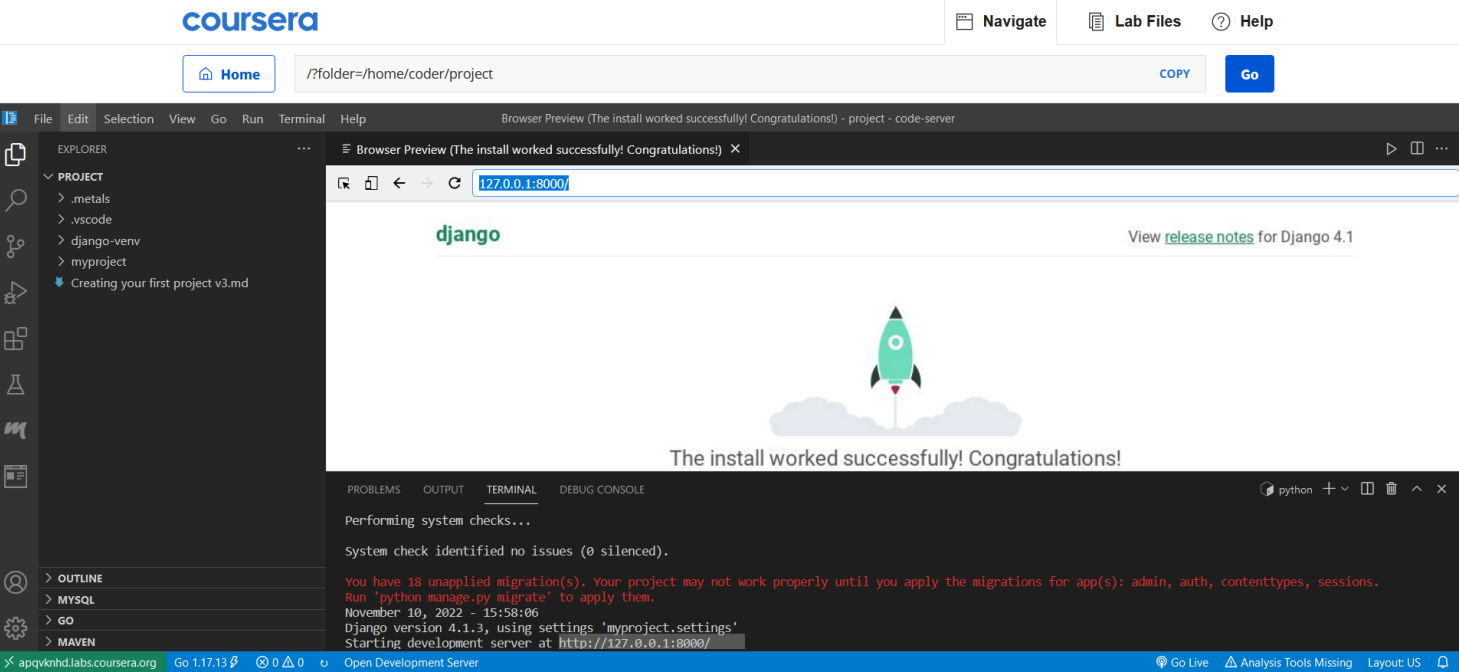
Additional step:

You can try changing the URL in the browser and adding `/admin` to the end. Press enter to load the Django administration page that you will learn about later.

coursera   ⊞ Navigate   ▤ Lab Files   ⍰ Help

File   Edit   Selection   View   Go   Run   Terminal   Help   Browser Preview (Log in | Django site admin) - project - code-server

EXPLORER   ···   ☰ Browser Preview (Log in | Django site admin) ✕   ▷ ⊡ ···

∨ PROJECT   ⇱ ⬚ ← → ↻   127.0.0.1:8000/admin/login/?next=/admin/

  > .metals
  > .vscode
  > django-venv
  > myproject
  ⬇ Creating your first project v3.md

                                                            Django administration

                                                     Username:
                                                     ┌────────────────────────────┐
                                                     │   │
                                                     └────────────────────────────┘

                                                     Password:
                                                     ┌────────────────────────────┐
                                                     │   │
                                                     └────────────────────────────┘

                                                                  Log in

  > OUTLINE   PROBLEMS   OUTPUT   TERMINAL   DEBUG CONSOLE   🐍 python + ∨ ⊟ 🗑 ⌃ ✕
  > MYSQL
  > GO   Run 'python manage.py migrate' to apply them.
  > MAVEN   November 10, 2022 - 15:58:06
                         Django version 4.1.3, using settings 'myproject.settings'
                         Starting development server at http://127.0.0.1:8000/

apqvknhd.labs.coursera.org   Go 1.17.13 ⅄ ⊗ 0 △ 0 ↻   Open Development Server   ◉ Go Live ⚠ Analysis Tools Missing   Layout: US 🔔