

Django and Python in Virtual Environment

1 PROMPT:

How to install Python virtual environment and start the virtual environment

How to start a python Django project

How to start a python Django apps

How to start the Django web server

How to stop the web server and the virtual environment



2 Purpose

The purpose of this document is to install and use Django in a virtual environment

3 Procedure

Running Django in a virtual environment is a good practice as it isolates your project dependencies from other Python projects.

3.1 Creating the virtual environment and install Django

Here's a step-by-step guide on how to set up and run Django in a virtual environment. Execute the commands in a command line.

1. Install virtualenv (if not already installed):
pip install virtualenv
2. Create a new directory for your virtual environment and navigate to it:
mkdir virtuale
cd virtuale
3. Create a new virtual environment:
python -m venv venv
4. Activate the virtual environment:

On Windows:

venv\Scripts\activate

On macOS and Linux:

source venv/bin/activate

5. Install Django in the virtual environment:

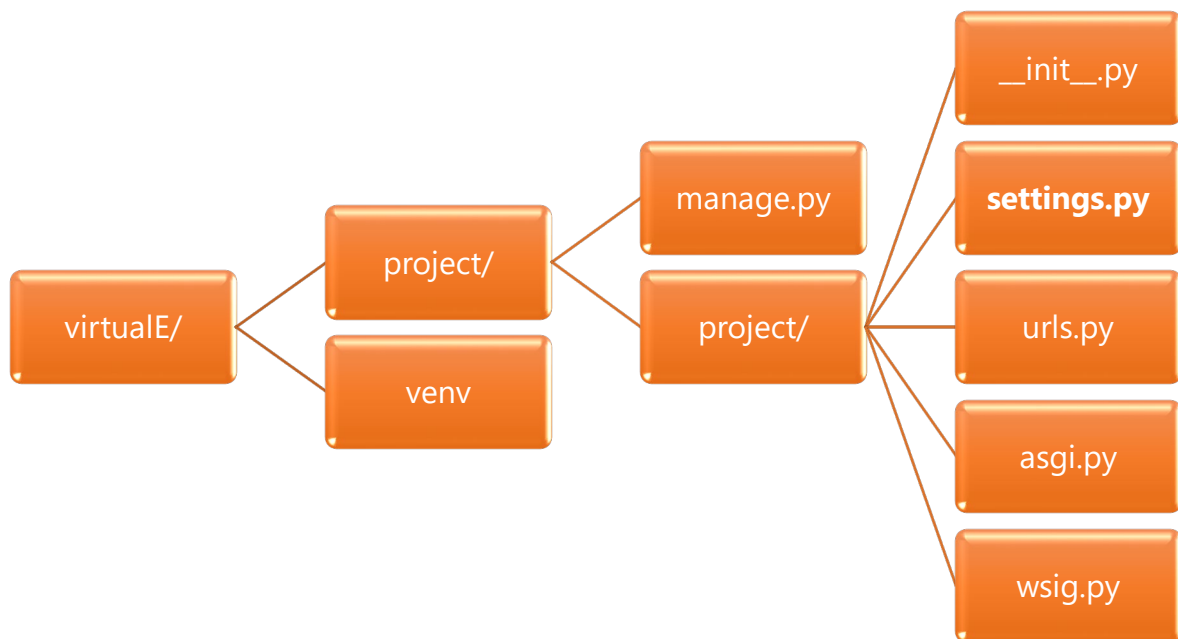
pip install Django

3.2 Creating the Django Project

Now, you're ready to create the Django project.

1. Run this command in the same folder where the **venv** folder is located:
django-admin startproject project

Your folder structure will look like this:



3.3 Create a new app

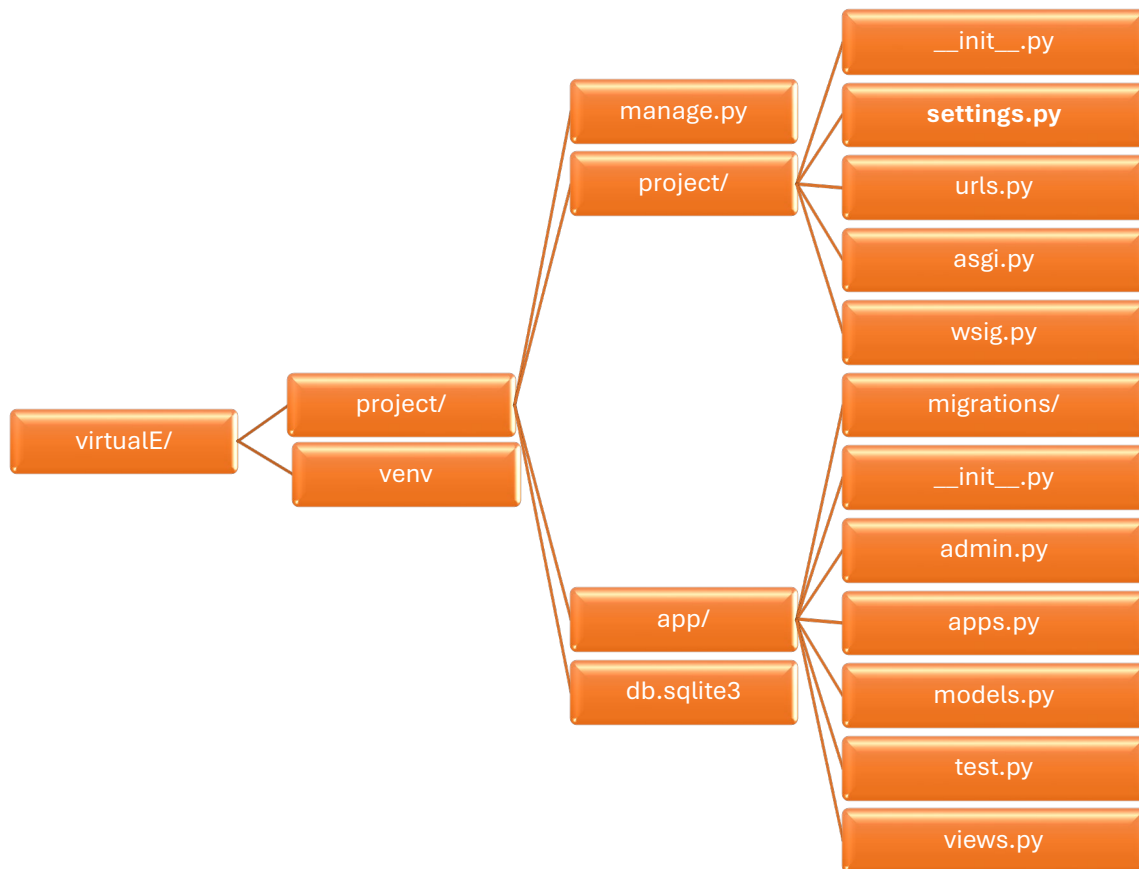
To create a new app, go to the location **virtualE/project/** where the **manage.py** is also located. Follow this command

(because the current folder is virtualE/)

```
cd project  
python manage.py startapp app
```

(or django-admin startapp app)

Note: app is the application name



Note. project/app/urls.py (also known as app urls) is to be created by the user.

The development shall be done under the folder project/app. The configuration of website is under project/project like the project urls.py and settings.py.

4 Run your Django development server:

In the command line, make sure that you are under the folder project/ where manage.py is located before running the command

python manage.py runserver

Using the browser, key in **127.0.0.1:8000**

If wanted to open it to other computers, there is another procedure to do this as it requires to modify the following:

- settings.py** localhost
- running the server with the command in the location **/virtualE/projects**
python manage.py runserver 0.0.0.0:8000

Note: do not close the

5 Stopping the Virtual Environment

When you're done working on your project virtual environment, you can deactivate the virtual environment:

virtualE\venv\scripts\deactivate

To reactivate the virtual environment later, navigate to your project directory and run the activate command again.

```
virtualE\venv\scripts\activate
```

Remember to always activate your virtual environment before working on your Django project. This ensures that you're using the correct versions of Django and other dependencies specific to this project.