Setting Up & installing Django

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************ Django Tutorial ***********

Steps to create any Django project and run it on server:

1) Install Pythonv3.8 or newer

2) Install Virtual Environment

3) Create Virtual environment

4) Activate Virtual Environment

5) Install Django

6) Create Project

7) Run the project on server

 Let's take you step by step :)

Install & Set Up Django

First: Install Pythonv3.8 or newer

- you need to have a **Python Version not older than 3.8**

- Because it contains **pip** and this is where your whole work is …

Second: Install Virtual Environment

- You'll need to work on a **virtual environment** to separate your work on your code editor from the outside hardware so when you import libraries or anything else, no conflicts happen, and so on ..

to install your virtual environment:

after you install a *Python Version NOT older than v3.8*, open your terminal and write this :

For windows :

pip install virtualenv

For Mac / Linux :

pip3 install virtualenv

To start a new project —> create a new virtual environment

Step 3 : Create Virtual environment

Method 1 :

virtualenv name

EX : virtualenv test

Method 2 :

On WIndows :

python -m venv name

EX : python -m venv test

On Ubuntu :

install the python3 venv package first —>

sudo apt install python3.10-venv

then create a new venv :

python3 -m venv project_name

EX : python3 -m venv test

Now you have created a new folder with the the name of the virtual environment, and this folder contains some packages like lib, pip, ….

Step 4 To activate your venv :

- **cd** to your created virtual environment folder (but if you're there, then it's gonna be **a dot "."**) , then type :

O**n Windows :**

name\Scripts\activate … and S in Scripts is Capital

EX : test\Scripts\activate

On Linux :

source name/bin/activate

EX : source test/bin/activate

Step 5 : now you can install django …

pip install django

Step 6 : Now to start a new project

cd to your venv folder, then type :

django-admin startproject project_name

EX : django-admin startproject project

You'll realize a new folder is created with your project name, and if you open it, it contains two files, one of them is called **manage.py**

Step 7 : Now to run your django server,

cd to your newly created project name folder, and type :

python3 manage.py **runserver** **(now yk python3 is for linux and for windows it's python)**

this is gonna appear :

Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
October 06, 2023 - 18:30:00
Django version 4.2.6, using settings 'project.settings'

Starting development server at **http://127.0.0.1:8000/**
Quit the server with CONTROL-C.

See the **http://127.0.0.1:8000/ ? This is your localhost server !**

However, your built in files haven't been installed yet because of this message : You have 18 unapplied migration(s). Your project may not work properly until you apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.

This has something to do with the database you haven't created it. You're gonna learn about it later, but to ignore it, press :

ctrl + c

then type :

python3 manage.py migrate

now your files are installed, and you can open your project in Visual Studio Code by typing :

code .

now open your VSC terminal, either using : **ctrl + `** or by choosing **Terminal** from the menu above, then **New Terminal**

and now you can run your server again : **python3 manage.py runserver**