Django

Introduction

What is django?

- Django is a high-level Python web framework.
- It's free and open source.
- Built by experienced developers, it takes care of much of the hassle of web development, so you can focus on writing your app without needing to reinvent the wheel.

https://www.djangoproject.com/start/overview/

Django Documentation

https://docs.djangoproject.com/en/4.1/

Installation

1. In the terminal,

pipenv shell -> This creates the pipfile for you and launches a virtual environment.

2. Install Django

https://docs.djangoproject.com/en/4.1/topics/install/#installing-official-release

https://pypi.org/project/Django/

3. Verify installation

Run the first application

https://docs.djangoproject.com/en/4.1/intro/tutorial01/

1. Create the project

    A folder will be created in the name of your project along with manage.py file.

2. Run the application
3. Quit the server (ctrl+c)

Important Files

manage.py: A command-line utility that lets you interact with this Django project in various ways.

__init__.py: An empty file that tells Python that this directory should be considered a Python package.

settings.py: Settings/configuration for this Django project.

urls.py : The URL declarations for the Django project

Connect to Database

Prerequisite : MySQL installed and running

1. Open settings.py
2. Search for databases.

    Default database: sqlite3

3. Install `API client`
4. Update configurations for database of your choice
5. Run the app

Perform Migrations

Migrations are Django's way of propagating changes we make.

https://docs.djangoproject.com/en/4.1/topics/migrations/

1. python manage.py makemigrations
2. python manage.py migrate

migrate -> responsible for applying and unapplying migrations.

makemigrations -> responsible for creating new migrations based on the changes you have made to your models.