

# Django Tutorials

November 28, 2022

Use Django to build a crud application

## 1 Setup python environment

```
# Create the root directory align (any name you want) and cd into it.
$ mkdir align
$ cd .\align

# Create python virtual environment in folder env.
$ python -m venv .\env

# Activate the virtual environment and pip install django.
$ .\env\scripts\activate.ps1 # ps1 stands for powershell, use the appropriate script f
$ pip install django
```

## 2 Setup the project directory

```
# Create a folder for your project and cd into it.
$ mkdir crud
$ cd crud
$ django-admin startproject mproj .

# Data migration (setting up database integration)
$ python manage.py makemigrations
$ python manage.py migrate

# create super user (after migration, for using the django built-in admin utility)
$ python manage.py createsuperuser
```

```
# runserver
$ python manage.py runserver
# open localhost:8000 (127.0.0.1)
```

At this point, your folder structure should look like this:



the env folder is not listed.

### 3 create an app

the app can be seen as a module.

```
# cd into the crud directory, create the core (any name you want)
$ python manage.py startapp core

# create the base template directory under crud
$ mkdir templates
$ touch .\templates\base.html

# create module specific template directory under core/
$ mkdir -p .\core\templates\core

# register core module in mproj/settings.py,
# see installed_apps, templates dirs key for detail
```

At this point, your folder structure should look at this (files excluded):



## 4 Create models, views, etc.

Follow the tutorial for details.

Note that whenever we update the data models, we need to rerun migrations:

```
python manage.py makemigrations
```

```
python manage.py migrate
```