

Django setup and command line tool

1. Create directory: `mkdir name_of_dir`
2. Install a virtual environment:
 - if you didn't install virtualenv you should run that command : `pip3 install virtualenv`
 - Create virtual environment : `python3 -m venv env` Or `python3 -m virtualenv env` (according to what package you have)
3. create a requirements.txt file:
 - `touch requirements.txt`
 - if you want to edit from the terminal just type : `vi requirements.txt`
 - to start editing just type in i (stands for INSERT)
 - then write your requirements, for now just write `django==2.2.3`
 - to save the changes type : `esc` and `:wq` (write and quit)
4. activate your virtual environment:
 - activate virtual env : `source env/bin/activate`
 - On Windows : `source env/Scripts/activate`
5. now we'll install django inside our virtual env:
 - `pip3 install -r requirements.txt`

Create a new django project

1. We now want to create our first project. We are going to use some commands.
 - `django-admin startproject myProject` this command creates a new project inside of that project you should see a file called `manage.py` and a folder that has the same name as the project.
 - now go inside if the first folder, here it would be `cd myProject`.
2. Once we created the project we want to create our first app.
 - You should be at the same level of directory as the `manage.py` file. if you need to go back one folder just run `cd ..`
 - and now run that command: `django-admin startapp main_app`
 - you should now see a folder called by the name of your app.

First settings

1. Go to the file called `settings.py` it should be located at `myProject/myProject/settings.py`
 - You should see a list of `INSTALLED_APPS` just add the name of your app right after the other ones
2. Go now to this file : `myProject/myProject/urls.py` :
 - this is the paths that lead to your apps.
 - add this modules : `from django.urls import path, include`
 - add this line inside the `urlpatterns`: `path(' ', include('main_app.urls'))`

- you could also right something like this : `path('main_app/' , include('main_app.urls'))`
- this is the url that leads to the paths of your app.
- it means that if you are running your website on localhost, this url : `http://localhost:8000/` (or if you wrote the other line : `http://localhost:8000/main_app/`) will lead to the routes inside of your app.

3. Inside of your app create a new file calle `urls.py` .

- inside of that file copy those line below:

Creating the first view

Entrée []:

```
1 from django.urls import path
2 from . import views
3
4 app_name = 'main_app'
5
6 urlpatterns = [
7 ]
```

1. Inside of `urlpatterns` copy this line `path('', views.index, name='index')`,

- this is the first path to a view that is going to be rendered when you'll call `http://localhost:8000/`

2. As you can see we are calling something called `views.index`

- go inside your `views.py` file
- there you should create a function called `index` and render your first template.
- it should look like that:

Entrée [2]:

```
1 def index(request):
2     return render(request, 'index.html')
```

3. inside you app folder create a new directory called `templates`.

4. inside this folder create a file called `index.html`

- write whatever html you want inside that file.

Making the server run and seeing our view

1. inside your terminal run those commands:

2. `python3 manage.py migrate` : this will create the background for the database of your website

3. `python3 manage.py createsuperuser` : this command will create a user that can have every rights and can access the admin view

4. `python3 manage.py runserver` : you should now see your server running. You can now see all the request and every operation that your website is going to do inside of your terminal

Entrée []:

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