



Weather app using Django | Python

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In this tutorial, we will learn how to create a Weather app that uses Django as backend. Django provides a Python Web framework based web framework that allows rapid development and clean, pragmatic design.

Basic Setup –

Change directory to weather –

```
cd weather
```

Start the server –

```
python manage.py runserver
```

To check whether the server is running or not go to a web browser and enter `http://127.0.0.1:8000/` as URL. Now, you can stop the server by pressing

```
ctrl-c
```

Implementation :

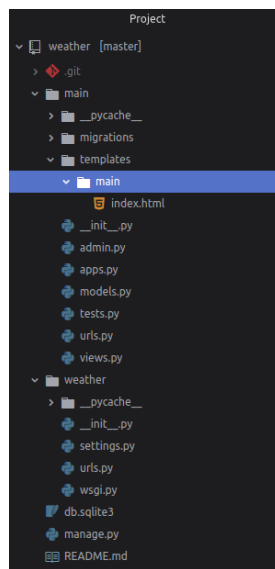
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Goto main/ folder by doing :

```
cd main
```

and create a folder with `index.html` file: `templates/main/index.html`

Open the project folder using a text editor. The directory structure should look like this :



Now add main app in settings.py

```
# Application definition

INSTALLED_APPS = [
    'main',
    'django.contrib.admin',
    'django.contrib.auth',
    'django.contrib.contenttypes',
    'django.contrib.sessions',
    'django.contrib.messages',
    'django.contrib.staticfiles',
]

MIDDLEWARE = [
```

Edit urls.py file in weather :

```
from django.contrib import admin
from django.urls import path, include
```

```
urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('main.urls')),
]
```

edit urls.py file in main :

```
from django.urls import path
from . import views

urlpatterns = [
    path('', views.index),
]
```

edit views.py in main :

```

from django.shortcuts import render
# import json to load json data to python dictionary
import json
# urllib.request to make a request to api
import urllib.request

def index(request):
    if request.method == 'POST':
        city = request.POST['city']
        ''' api key might be expired use your own api_key
            place api_key in place of appid = "your_api_key_here " '''

        # source contain JSON data from API

        source = urllib.request.urlopen(
            'http://api.openweathermap.org/data/2.5/weather?q ='
            + city + '&appid = your_api_key_here').read()

        # converting JSON data to a dictionary
        list_of_data = json.loads(source)

        # data for variable list_of_data
        data = {
            "country_code": str(list_of_data['sys']['country']),
            "coordinate": str(list_of_data['coord']['lon']) + ' '
            + str(list_of_data['coord']['lat']),
            "temp": str(list_of_data['main']['temp']) + 'k',
            "pressure": str(list_of_data['main']['pressure']),
            "humidity": str(list_of_data['main']['humidity']),
        }
        print(data)
    else:
        data = {}
    return render(request, "main/index.html", data)

```

You can get your own API key from : [Weather API](#)

Navigate to templates/main/index.html and edit it: [link to index.html file](#)

Make migrations and migrate it:

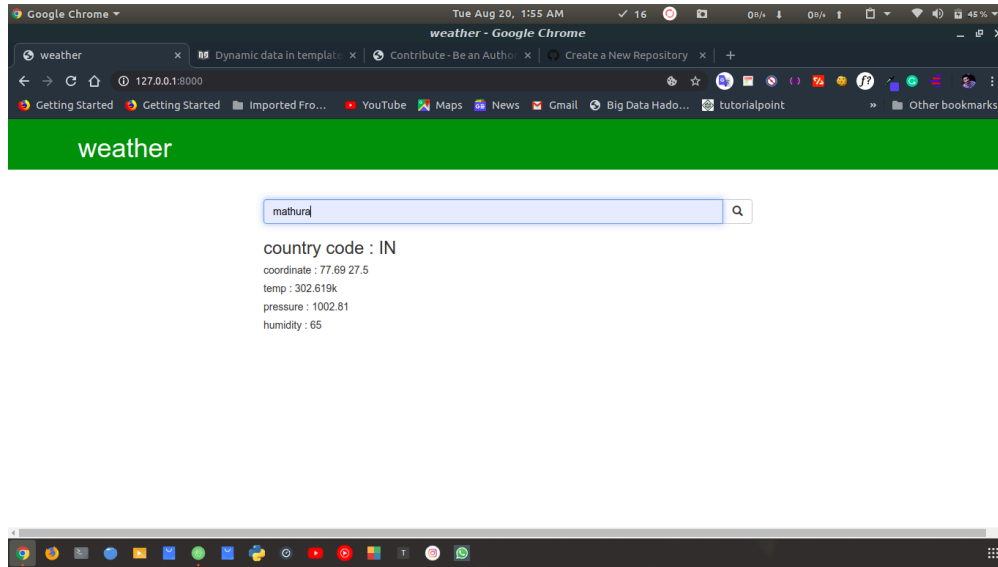
```

python manage.py makemigrations
python manage.py migrate

```

now let's run the server to see your weather app.

```
python manage.py runserver
```



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