Name:-

PRN: -

Class:- Ty (btech)

Batch:

PRACTICAL: 8

AIM: Design a django project for "Weather App"

THEORY

INTRODUCTION:

In this article, we will build a Django app that displays the current weather for various cities. The current weather data will be provided by Open Weather Map API. We will work with a database and create a form.

STARTING THE PROJECT

To initiate a project of Django on Your PC, open Terminal and Enter the following command

```
django-admin the_weather
```

A New Folder with the name projectName will be created. To enter in the project using the terminal enter command

```
cd the_weather
```

Now let's run the server and see everything is working fine or not. To run the server, type the below command in the terminal.

```
python manage.py runserver
```

LOGIN INTO ADMIN DASHBOARD

Next, you will log in to the admin dashboard Django gives you. To accomplish that, first, you have to migrate your database, which means Django will create the pre-defined tables that are needed for the default apps.

```
python manage.py makemigrations
python manage.py migrate
```

The app you are building does not need any users, but having an admin user will allow you to access the admin dashboard.

To create an admin user, you'll run the createsuperuser command in your Terminal:

```
python manage.py createsuperuser
```

CREATING AN APP:

Create an app by following command:

```
python manage.py startapp weather
```

- **Settings.py:**

  Add your app name in settings.py

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

DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.sqlite3',
        'NAME': os.path.join(BASE_DIR, 'db.sqlite3'),
    }
}
```

- **Urls.py:**

  Now add your apps urls in the project

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


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

- **Views.py:**

- **urls.py:**

Create urls.py file in your app file directory

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

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

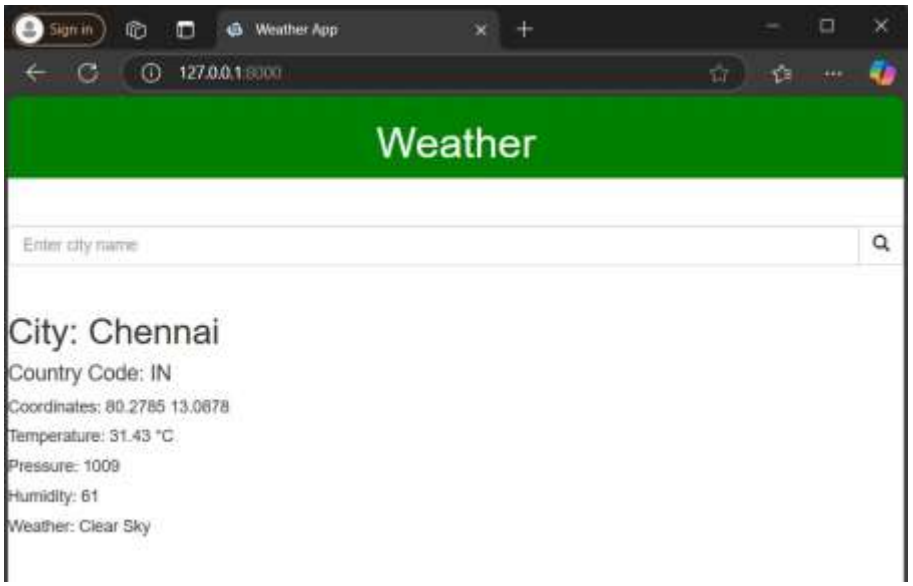
- **index.html:**

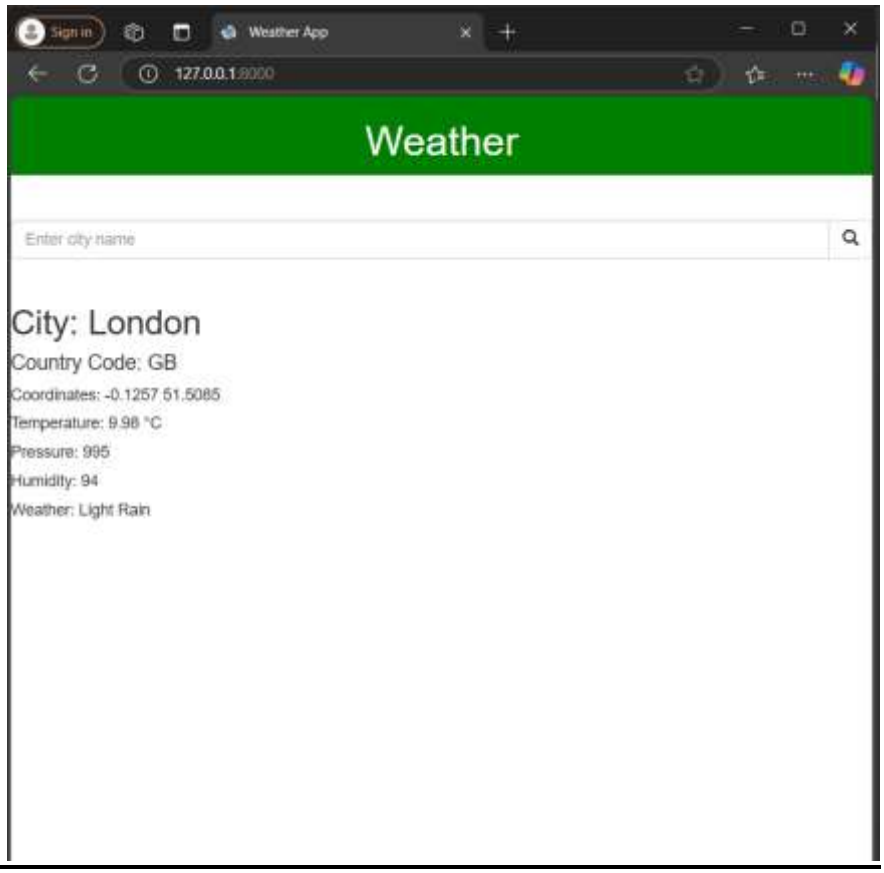
Create a login.html in templates folder.

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Weather App</title>

  <!-- Bootstrap CSS -->
                                        <link                                        rel="stylesheet"
href="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/css/bootstrap.min.css">
  <!-- jQuery library -->
                                                                                                <script
src="https://ajax.googleapis.com/ajax/libs/jquery/3.4.1/jquery.min.js"></script>
  <!-- Bootstrap JS -->
                                                                                                <script
src="https://maxcdn.bootstrapcdn.com/bootstrap/3.4.0/js/bootstrap.min.js"></script
>
</head>

<body>
  <nav class="row" style="background: green; color: white;">
    <h1 class="col-md-3 text-center">Weather</h1>
  </nav>
  <br /><br />

  <center class="row">
    <form method="post" class="col-md-6 col-md-offset-3">
      {% csrf_token %}
      <div class="input-group">
        <input type="text" class="form-control" name="city" placeholder="Enter city
name" required>
       <div class="input-group-btn">
         <button class="btn btn-default" type="submit" title="Search">
           <span class="sr-only">Search</span>
```

```
          <i class="glyphicon glyphicon-search"></i>
        </button>
      </div>
    </div>
  </form>
 </center>

 <br />

 <div class="row">
  {% if data and not data.error %}
    <div class="col-md-6 col-md-offset-3">
      <h2>City: {{ data.city_name }}</h2>
      <h4>Country Code: {{ data.country_code }}</h4>
      <h5>Coordinates: {{ data.coordinate }}</h5>
      <h5>Temperature: {{ data.temp }}</h5>
      <h5>Pressure: {{ data.pressure }}</h5>
      <h5>Humidity: {{ data.humidity }}</h5>
      <h5>Weather: {{ data.weather }}</h5>
    </div>
  {% elif data.error %}
    <div class="col-md-6 col-md-offset-3 text-danger">
      <h4>{{ data.error }}</h4>
    </div>
  {% endif %}
 </div>
</body>
</html>
```

OUTPUT:





CONCLUSION:

Hence, in this practical we learnt to make weather application using django

Sign of Teacher