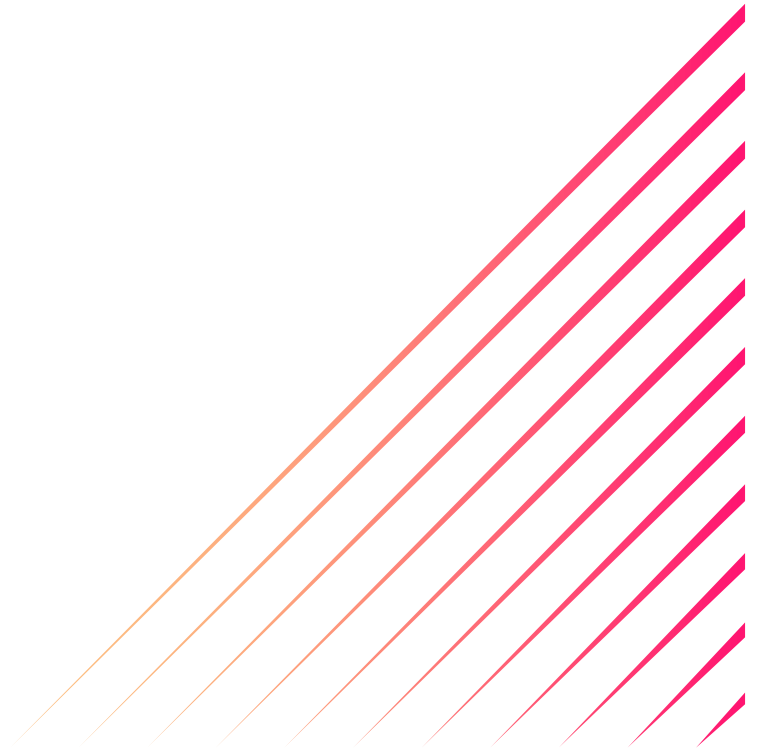# Django Task 2

Create a virtual environment and install Django in it- attach a screen shot?

```
Microsoft Windows [Version 10.0.19045.4046]
(c) Microsoft Corporation. All rights reserved.

C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo>pip install virtualenv
Collecting virtualenv
  Downloading virtualenv-20.25.1-py3-none-any.whl.metadata (4.4 kB)
Collecting distlib<1,>=0.3.7 (from virtualenv)
  Downloading distlib-0.3.8-py2.py3-none-any.whl.metadata (5.1 kB)
Collecting filelock<4,>=3.12.2 (from virtualenv)
  Downloading filelock-3.13.1-py3-none-any.whl.metadata (2.8 kB)
Collecting platformdirs<5,>=3.9.1 (from virtualenv)
  Downloading platformdirs-4.2.0-py3-none-any.whl.metadata (11 kB)
Downloading virtualenv-20.25.1-py3-none-any.whl (3.8 MB)
   ———————————————————————————— 3.8/3.8 MB 8.9 MB/s eta 0:00:00
Downloading distlib-0.3.8-py2.py3-none-any.whl (468 kB)
   ———————————————————————————— 468.9/468.9 kB 14.8 MB/s eta 0:00:00
Downloading filelock-3.13.1-py3-none-any.whl (11 kB)
Downloading platformdirs-4.2.0-py3-none-any.whl (17 kB)
Installing collected packages: distlib, platformdirs, filelock, virtualenv
Successfully installed distlib-0.3.8 filelock-3.13.1 platformdirs-4.2.0 virtualenv-20.25.1
```

```
Successfully installed distlib-0.3.8 filelock-3.13.1 platformdirs-4.2.0 virtualenv-20.25.1

C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo>py -m virtualenv demopro
ject
created virtual environment CPython3.12.2.final.0-64 in 14194ms
  creator CPython3Windows(dest=C:\Users\HP\OneDrive\Documents\python demo\Python Projects beine
x\demo\demoproject, clear=False, no_vcs_ignore=False, global=False)
  seeder FromAppData(download=False, pip=bundle, via=copy, app_data_dir=C:\Users\HP\AppData\Loc
al\pypa\virtualenv)
    added seed packages: pip==24.0
  activators BashActivator,BatchActivator,FishActivator,NushellActivator,PowerShellActivator,Py
thonActivator

C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo>demoproject\scripts\acti
vate

(demoproject) C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo>pip instal
l django
Collecting django
  Using cached Django-5.0.3-py3-none-any.whl.metadata (4.2 kB)
Collecting asgiref<4,>=3.7.0 (from django)
  Using cached asgiref-3.7.2-py3-none-any.whl.metadata (9.2 kB)
Collecting sqlparse>=0.3.1 (from django)
  Using cached sqlparse-0.4.4-py3-none-any.whl.metadata (4.0 kB)
Collecting tzdata (from django)
```

Create a Django project and app, explain the files of the project and app folders.

```
(demoproject) C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo\demo>pytho
n manage.py runserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you apply the migr
ations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
March 12, 2024 - 11:34:30
Django version 5.0.3, using settings 'demo.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.

[12/Mar/2024 11:34:33] "GET / HTTP/1.1" 200 10629
Not Found: /favicon.ico
[12/Mar/2024 11:34:34] "GET /favicon.ico HTTP/1.1" 404 2108
C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo\demo>python manage.py ma
kemigrations
No changes detected

C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo\demo>python manage.py ru
nserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
March 12, 2024 - 11:50:19
Django version 5.0.3, using settings 'demo.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.

[12/Mar/2024 11:50:22] "GET / HTTP/1.1" 200 10629
```

Project Folder
- The project folder is the main directory of your Django project. It typically contains settings, URL configurations, and other project-level configurations.
- Common files and folders found in the project folder include:
    - **settings.py**: This file contains all the settings for your Django project, including database configuration, static files configuration, middleware, etc.
    - **urls.py**: This file defines the URL patterns for your Django project, mapping URLs to views.
    - **wsgi.py** and **asgi.py**: These files are used to run your Django application in production using WSGI or ASGI servers.
    - **manage.py**: This is a command-line utility that lets you interact with your Django project. You can use it to run development server, create migrations, run tests, and perform other administrative tasks.

App Folder
- In Django, an app is a web application that performs a specific functionality within your project. Each app can be reused in other projects.
- An app typically contains models, views, templates, static files, and possibly other components related to a specific functionality.
- The app folder typically includes:
    - **models.py**: This file defines the database models for your app using Django's ORM (Object-Relational Mapper).
    - **views.py**: This file contains the views or controllers that handle HTTP requests and responses for your app.
    - **urls.py**: This file defines URL patterns specific to your app. These URL patterns can be included in the project's **urls.py** file.
    - **templates/**: This folder contains HTML templates used to render views and generate dynamic content.
    - **static/**: This folder contains static files such as CSS, JavaScript, images, etc., used by your app.
    - **migrations/**: This folder contains database migration files generated by Django's migration system. Migrations manage changes to your database schema as your app evolves.

Run the Django project- attach screen shots of the Django admin panel and site?

```
C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo\demo>python manage.py ma
kemigrations
No changes detected

C:\Users\HP\OneDrive\Documents\python demo\Python Projects beinex\demo\demo>python manage.py ru
nserver
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
March 12, 2024 - 11:50:19
Django version 5.0.3, using settings 'demo.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.

[12/Mar/2024 11:50:22] "GET / HTTP/1 1" 200 10629
```
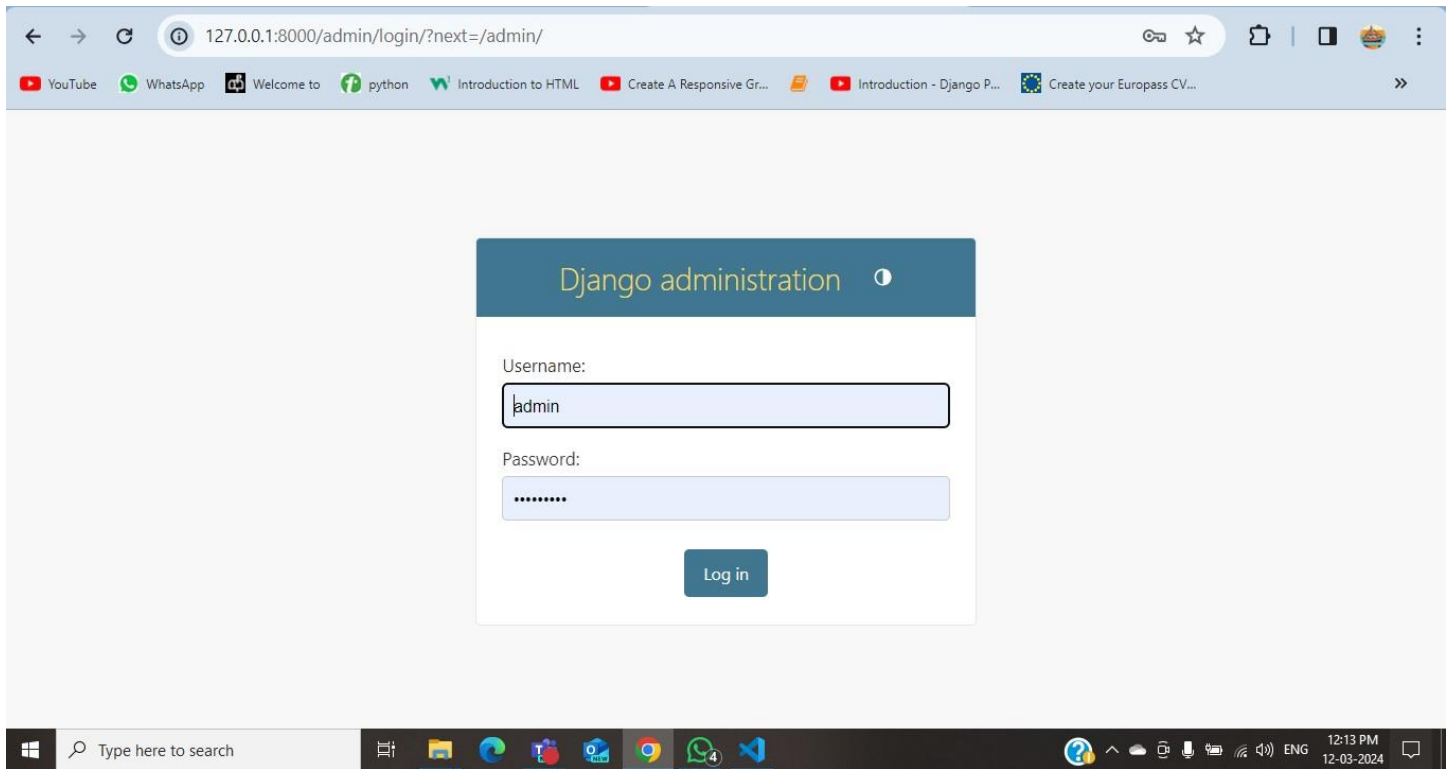
RUNNING DJANGO

django   View release notes for Django 5.0

The install worked successfully! Congratulations!

You are seeing this page because DEBUG=True is in your
settings file and you have not configured any URLs.

WEB PAGE LOADED SUCCESSFULLY

SUPERUSER CREATED