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PWD Task 2.1

1. Write two to three sentences on why Django is so popular among web developers.

   o Django is popular among Python web developers because it has many advantages such as fast development and processing. Also, Django is scalable, secure and has a community of contributors for support.

2. After some research, list five large companies that use Django. Specify what the company's product or service is and what they use Django for.

   o Instagram is a photo and video-sharing social media network. Django helps process large amounts of data and user interactions by keeping it simple, not reinventing the wheel and going with solid and proven technologies.

   o Spotify is a music library streaming website. They use Python for backend services and machine learning and Django for the framework.

   o YouTube is a video sharing platform. Django is used to improve performance by creating new functionalities and frequently upgrading.

   o The Washington Post is a news website which uses Django to handle large traffic, providing efficient and fast performance.

   o NASA.gov is the official website for the United States National Aeronautics and Space Administration. Because it is a government website, it uses Django for increased security and reliability, as well as fast loading and performance.

3. For each of the following scenarios, explain if you would use Django (and why or why not):

   o You need to develop a web application with multiple users.

      1. Yes, I would use Django because it is very scalable.

- You need fast deployment and the ability to make changes as you proceed.
    1. Yes, I would use Django because it has fast development and processing because of its MVT architecture.
- You need to build a very basic application, which doesn't require any database access or file operations.
    1. No, I would not use Django because it is built for databases and file management and I cannot modify or remove these Django features. It would be more server intensive, thus heavy on low-bandwidth systems.
- You want to build an application from scratch and want a lot of control over how it works.
    1. No, I would not use Django because there are very few modifications Django will allow you to make. It is not good for customizing how an app works.
- You're about to start working on a big project and are afraid of getting stuck and needing additional support.
    1. Yes, I would use Django because it is open source, very popular and has a large community of contributors.

Source: https://www.netguru.com/blog/django-apps-examples

Screenshots:

```
(web-dev) C:\Users\cmreg\Envs>python --version
Python 3.12.6

(web-dev) C:\Users\cmreg\Envs>mkvirtualenv achievement2-practice
created virtual environment CPython3.12.6.final.0-64 in 6046ms
  creator CPython3Windows(dest=C:\Users\cmreg\Envs\achievement2-practice, clear=False, no_vcs_ignore=False, global=False)
  seeder FromAppData(download=False, pip=bundle, via=copy, app_data_dir=C:\Users\cmreg\AppData\Local\pypa\virtualenv)
    added seed packages: pip==24.3.1
  activators BashActivator,BatchActivator,FishActivator,NushellActivator,PowerShellActivator,PythonActivator

(achievement2-practice) C:\Users\cmreg\Envs>achievement2-practice\Scripts\activate.bat

(achievement2-practice) C:\Users\cmreg\Envs>
```

```
(achievement2-practice) C:\Users\cmreg\Envs>py -m pip install Django
Collecting Django
  Using cached Django-5.1.4-py3-none-any.whl.metadata (4.2 kB)
Collecting asgiref<4,>=3.8.1 (from Django)
  Using cached asgiref-3.8.1-py3-none-any.whl.metadata (9.3 kB)
Collecting sqlparse>=0.3.1 (from Django)
  Using cached sqlparse-0.5.3-py3-none-any.whl.metadata (3.9 kB)
Collecting tzdata (from Django)
  Using cached tzdata-2024.2-py2.py3-none-any.whl.metadata (1.4 kB)
Using cached Django-5.1.4-py3-none-any.whl (8.3 MB)
Using cached asgiref-3.8.1-py3-none-any.whl (23 kB)
Using cached sqlparse-0.5.3-py3-none-any.whl (44 kB)
Using cached tzdata-2024.2-py2.py3-none-any.whl (346 kB)
Installing collected packages: tzdata, sqlparse, asgiref, Django
Successfully installed Django-5.1.4 asgiref-3.8.1 sqlparse-0.5.3 tzdata-2024.2
```