

Exercise - 2.1

Django is very popular amongst web developers because of its scalability, flexibility, and security. Django can handle large amounts of data and user traffic efficiently making it one of the best frameworks for applications with high usage. Django also comes with high levels of security features built in to protect against common vulnerabilities like XSS and SQL injection.

5 Large companies that use Django are Spotify, Instagram, Pinterest, Mozilla, and AWS.

- **Spotify** - Use django for personalization and functionality to create personalized experience for users and increase apps services.
 - **Instagram** - Uses Django for their backend stack for scalability and rapid development.
 - **Pinterest** - Pinterest started off using Django for the back-end of their application then migrated to a mix of python and java using a service oriented architecture.
 - **Mozilla** - Mozilla uses Django as part of their add-ons, Firefox sync-server and their internal tools and services.
 - **AWS** - AWS provides extensive support for django applications through its cloud services.
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- You need to develop a web application with multiple users.
 - I would use Django because Django supports applications that require a lot of demand. Django is easily scalable and can handle large amounts of data and traffic.
 - You need fast deployment and the ability to make changes as you proceed.
 - I would use Django because Django comes with all the tools to make changes and deploy quickly with the built-in panel and ORM.
 - You need to build a very basic application, which doesn't require any database access or file operations.
 - I wouldn't use Django for a very basic application since it might be a bit overkill for such a simple application. If there's no database or file operation it doesn't seem logical to use Django.
 - You want to build an application from scratch and want a lot of control over how it works.
 - I could use Django here but there's a lot of other information missing that could help me make a better decision on which framework to use. As I'm not

experienced in python back-end frameworks I would still use Django since I am learning how to use it.

- You're about to start working on a big project and are afraid of getting stuck and needing additional support.
 - I would use Django because Django is widely supported and there is tons of documentation to read and learn for help. Also many huge companies use Django which helps because of all the information that can be found online when trying to solve problems.

```
C:\Users\zorbo>python --version
Python 3.8.7

C:\Users\zorbo>
```

```
C:\Users\zorbo>mkvirtualenv achievement2-practice
created virtual environment CPython3.8.7.final.0-64 in 3073ms
  creator CPython3Windows(dest=C:\Users\zorbo\Envs\achievement2-practice, clear=False, no_vcs_ignore=False, global=False)
  seeder FromAppData(download=False, pip=bundle, setuptools=bundle, wheel=bundle, via=copy, app_data_dir=C:\Users\zorbo\AppData\Local\pypa\virtualenv)
    added seed packages: pip==24.3.1, setuptools==75.3.0, wheel==0.45.1
  activators BashActivator,BatchActivator,FishActivator,NushellActivator,PowerShellActivator,PythonActivator

(achievement2-practice) C:\Users\zorbo>cd achievement2-practice\Scripts\activate
The system cannot find the path specified.

(achievement2-practice) C:\Users\zorbo>cd envs\achievement2-practice\

(achievement2-practice) C:\Users\zorbo\Envs\achievement2-practice>cd Scripts\activate
The directory name is invalid.

(achievement2-practice) C:\Users\zorbo\Envs\achievement2-practice>cd Scripts

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

```
(achievement2-practice) C:\Users\zorbo\Envs\achievement2-practice>pip install django
Collecting django
  Downloading Django-4.2.19-py3-none-any.whl.metadata (4.1 kB)
Collecting asgiref<4,>=3.6.0 (from django)
  Downloading asgiref-3.8.1-py3-none-any.whl.metadata (9.3 kB)
Collecting sqlparse>=0.3.1 (from django)
  Downloading sqlparse-0.5.3-py3-none-any.whl.metadata (3.9 kB)
Collecting backports.zoneinfo (from django)
  Downloading backports.zoneinfo-0.2.1-cp38-cp38-win_amd64.whl.metadata (4.7 kB)
Collecting tzdata (from django)
  Downloading tzdata-2025.1-py2.py3-none-any.whl.metadata (1.4 kB)
Collecting typing-extensions>=4 (from asgiref<4,>=3.6.0->django)
  Using cached typing_extensions-4.12.2-py3-none-any.whl.metadata (3.0 kB)
Downloading Django-4.2.19-py3-none-any.whl (8.0 MB)
  8.0/8.0 MB 70.9 MB/s eta 0:00:00
Downloading asgiref-3.8.1-py3-none-any.whl (23 kB)
Downloading sqlparse-0.5.3-py3-none-any.whl (44 kB)
Downloading backports.zoneinfo-0.2.1-cp38-cp38-win_amd64.whl (38 kB)
Downloading tzdata-2025.1-py2.py3-none-any.whl (346 kB)
Using cached typing_extensions-4.12.2-py3-none-any.whl (37 kB)
Installing collected packages: tzdata, typing-extensions, sqlparse, backports.zoneinfo, asgiref, django
Successfully installed asgiref-3.8.1 backports.zoneinfo-0.2.1 django-4.2.19 sqlparse-0.5.3 typing-extensions-4.12.2 tzdata-2025.1

[notice] A new release of pip is available: 24.3.1 -> 25.0.1
[notice] To update, run: python.exe -m pip install --upgrade pip

(achievement2-practice) C:\Users\zorbo\Envs\achievement2-practice>django-admin --version
4.2.19
```