

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

Django is a popular choice because it encourages fast and easy development by being a “batteries included” type of framework. Based on its Model View Template architecture, it is also a fast-processing framework and ensures scalability.

2. List five large companies that use Django. Specify what the company’s product or service is and what they use Django for.

Instagram, the photo and video social media platform, uses Django to help perform tasks dealing with the massive amount of data and user interactions that it must process. Pinterest, a type of visual search engine, utilizes Django to manage the speed and scalability of their site. National Geographic, who focuses on science and exploration, used Django to create a content management system to handle the content on their website, such as images and adverts. Spotify, a music/audio streaming platform, uses Python for their backend and then utilizes Django to help maintain functionality for all of their users. Lastly, YouTube, a video-sharing platform, uses Django to speed up the development and release of new features or upgrades.

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

- You need to develop a web application with multiple users.
 - I would say Django would be appropriate to use in this situation because of the built-in authentication and authorization.
- You need fast deployment and the ability to make changes as you proceed.
 - Django encourages fast development with its MVT architecture, so Django would be a valid framework choice for this application.

- You need to build a very basic application, which doesn't require any database access or file operations.
 - Django is not advised to be used for basic applications that don't require any special features, like database access.
- You want to build an app from scratch and want a lot of control over how it works
 - If you're looking for a lot of control over how your app works, Django is not the framework to use since it has a very specific way it works.
- You're about to start working on a big project and are afraid of getting stuck and needing additional support.
 - Django would be a good choice for the project because it has a large community behind it that can offer support if you get stuck or need help.

5. Download and install Python (if you haven't done so already)

```
emily -- zsh -- 114x37
Last login: Thu Aug 15 13:48:45 on ttys031
[emily@Emilys-Air ~ % workon web-dev
(web-dev) emily@Emilys-Air ~ % python3 --version
Python 3.9.19
(web-dev) emily@Emilys-Air ~ %
```

7. Set up and create a virtual environment and name it **achievement2-practice**:

```
A2 | Web Dev and Django -- zsh -- 114x37
Last login: Thu Aug 15 13:48:45 on ttys031
[emily@Emilys-Air ~ % workon web-dev
(web-dev) emily@Emilys-Air ~ % python3 --version
Python 3.9.19
(web-dev) emily@Emilys-Air ~ % cd /Users/emily/Documents/Life/School/CareerFoundry/Specialization/A2\ \|\ Web\ Dev\
\ and\ Django
(web-dev) emily@Emilys-Air A2 | Web Dev and Django % mkvirtualenv achievement2-practice
created virtual environment CPython3.9.19.final.0-64 in 203ms
  creator CPython3macOsBrew(dest=/Users/emily/.virtualenvs/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=/Users/em
ily/Library/Application Support/virtualenv)
    added seed packages: pip==24.1.2, setuptools==70.3.0, wheel==0.43.0
  activators BashActivator, CShellActivator, FishActivator, NushellActivator, PowerShellActivator, PythonActivator
virtualenvwrapper.user_scripts creating /Users/emily/.virtualenvs/achievement2-practice/bin/predeactivate
virtualenvwrapper.user_scripts creating /Users/emily/.virtualenvs/achievement2-practice/bin/postdeactivate
virtualenvwrapper.user_scripts creating /Users/emily/.virtualenvs/achievement2-practice/bin/preactivate
virtualenvwrapper.user_scripts creating /Users/emily/.virtualenvs/achievement2-practice/bin/postactivate
virtualenvwrapper.user_scripts creating /Users/emily/.virtualenvs/achievement2-practice/bin/get_env_details
(achievement2-practice) emily@Emilys-Air A2 | Web Dev and Django %
```

8. Install Django and verify the installation by checking the version:

```
A2 | Web Dev and Django -- zsh -- 114x21
(achievement2-practice) emily@Emilys-Air A2 | Web Dev and Django % django-admin --version
4.2.15
(achievement2-practice) emily@Emilys-Air A2 | Web Dev and Django %
```