

Exercise 2.1

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

Django is popular among web developers due to its high-level, robust framework that encourages rapid development and clean, pragmatic design. It comes with a plethora of built-in features like an ORM, authentication, and an admin interface, which help developers save time on routine tasks and focus on building unique functionalities. Additionally, Django's strong emphasis on security and scalability makes it an excellent choice for both small and large-scale projects.

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. Here are a list of five large companies that use Django:

- **Instagram:** Instagram is a social media platform focused on photo and video sharing. Django is used to handle the massive amounts of data and user interactions, as well as for rapid feature deployment and scaling.
- **Spotify:** Spotify is a music streaming service that offers users access to millions of songs and podcasts. Django is employed for backend services, particularly for handling the web applications and data processing tasks.
- **Pinterest:** Pinterest is a visual discovery and bookmarking tool that allows users to find and save ideas for various projects and interests.
- **Mozilla:** Mozilla, known for the Firefox web browser, uses Django for a variety of its web applications, including the Mozilla Developer Network (MDN), which is a resource for developers to learn about web technologies.
- **Dropbox:** Dropbox is a file hosting service that offers cloud storage, file synchronization, and personal cloud services.

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 choose Django for this project because it allows for rapid app deployment and offers scalability to enhance the user experience over time.
- You need fast deployment and the ability to make changes as you proceed.
 - One of Django's key features is its fast deployment speed and seamless scalability, making it an ideal choice for this project.
- You need to build a very basic application, which doesn't require any database access or file operations.
 - I would not use Django here because this application does not require a database.
- You want to build an application from scratch and want a lot of control over how it works.
 - Django would not be a good pick here because the developer wants a lot of control and Django requires a batteries-included framework. I will lose some of control for building the application.
- You're about to start working on a big project and are afraid of getting stuck and needing additional support.
 - I would use Django for this project because its built-in libraries and tools provide support if I encounter issues, and it allows for smooth scaling down with minimal flaws.

Checking the Python version:

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

Creating the virtual environment and activating it and installing Django and checking

the version:

```
(achievement2-practice) C:\Users\Josh>django-admin --version
4.2.14
```