Exercise 2.1 Answers

1. **Why is Django so popular among web developers?**

   There are several reasons for Django's success. One is that it's an open-source framework and has a large community of support. That will always draw more developers as it makes for easier learning and troubleshooting. Django also supports overall fast and easy development. It's implemented in Python, a very accessible language, and its architecture is conducive to clean code with good growth potential and scalability.

2. **Examples of companies that use Django.**

   Instagram – a social media platform that has grown immensely over the last decade. Django has served it well as a framework because of its scalability and data management, capable of handling enormous amounts of audience requests. These have grown in numbers exponentially as Instagram's model has shifted from solely image sharing, to reels, live videos and overall content monetization.

   The National Geographic – is just one of several examples of online magazine websites that uses Django. Given that Django's original purpose was to maintain content of an online journal, it makes sense to apply that large-scale to bigger sites. Django is used to manage huge amounts of data storage and present it in an attractive way to the users.

   Mozilla – represents one of the search engines that use Django. As a source of information, a search engine needs to access data quickly, reliably, and maintain flexibility. Because of Django's scalability it became a popular choice among developers to maintain search engines.

   Spotify – the audio streaming service uses Django for its scalability and optimized backend implementation. Though it's an open-source framework, it follows licensing rules for commercial purposes, making it an easy choice for big companies, as they don't have to worry about legal complications.

   Dropbox – this company represents the cloud storage Django clientele. In this specific case, developers used Django to ensure account synchronization across devices and realize the file sharing feature so important to Dropbox's functionality.

3. **Scenarios to use (or not use) Django**

   You need to develop a web application with multiple users.

In this case I would try using Django. Having multiple users means more data to process, regardless of the application purpose. Given Django's data management capabilities it would serve me well as a framework choice.

You need fast deployment and the ability to make changes as you proceed.

This is a good case to use Django. It comes pre-loaded with all the features necessary for fast deployment while maintaining scalability which will account for any changes I would need to make in the future.

You need to build a very basic application, which doesn't require any database access or file operations.

This would be a time to avid setting up Django, simply because I don't need one of its main features – data management and given that it's a simple project, I wouldn't need the structure it provides.

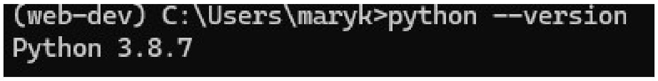
You want to build an application from scratch and want a lot of control over how it works.

In this case I would not choose to use Django. Although it has many benefits, it also heavily dictates how things are to be done. So, if I am looking to have more control in the project, I would pick a less opinionated framework.

You're about to start working on a big project and are afraid of getting stuck and needing additional support.

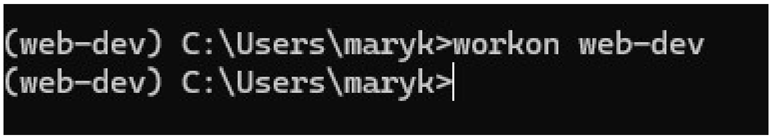
In this scenario, I would use Django. Django supports big projects well and given the wide range of community contributions, I am confident I could find support in solving any issues down the line.

Python Version Check



```
(web-dev) C:\Users\maryk>python --version
Python 3.8.7
```

Virtual Environment Check



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(web-dev) C:\Users\maryk>workon web-dev
(web-dev) C:\Users\maryk>
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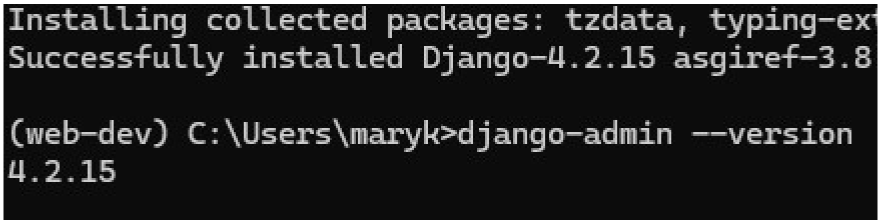
Django Installation



```
Installing collected packages: tzdata, typing-ex
Successfully installed Django-4.2.15 asgiref-3.8

(web-dev) C:\Users\maryk>django-admin --version
4.2.15
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