

Task 2.1:

1. Why is Django popular among web developers?

Django is popular among web developers because it is a high-level Python web framework that encourages rapid development and clean, pragmatic design. It includes a lot of built-in features like an ORM, authentication, and an admin interface, which help developers build complex web applications quickly and with fewer lines of code. Additionally, Django has a strong community and extensive documentation, which make it easier to get support and learn best practices.

2. Five large companies that use Django

Instagram: A social media platform for sharing photos and videos. They use Django to handle web traffic and implement various features on their website.

Spotify: A music streaming service. Django is used for backend services that handle web traffic and data analysis.

YouTube: A video-sharing platform owned by Google. Django is used for managing and serving their extensive content.

Dropbox: A file hosting service. They use Django for some of their web-based services and backend functionality.

Pinterest: A visual discovery and bookmarking platform. Django helps them manage user data and serve web content efficiently.

3. Scenarios for using Django

Developing a web application with multiple users: Yes, use Django because it has built-in support for user authentication and authorization, making it easier to manage multiple users securely.

Fast deployment and making changes as you proceed: Yes, Django supports rapid development and has features like migrations to handle database changes, which make it suitable for projects where requirements might evolve.

Building a very basic application without database access or file operations: No, Django might be overkill for very basic applications. A simpler framework like Flask could be more appropriate in this case.

Building an application from scratch with a lot of control: No, Django comes with a lot of built-in functionality, which can be restrictive if you want complete control over the architecture and components of your application. Consider using Flask or another microframework for more flexibility.

Starting a big project and needing additional support: Yes, Django is well-documented and has a strong community, which is very helpful for large projects where you might need guidance and support.

Check Python version:

```
PS D:\Fullstack-WD-Bootcamp\Tasks\Python\1.1\cf-python\Exercise 1.1\Exercise 2.1> python --version
Python 3.12.3
```

Check Django version:

```
(achievement2-practice) PS D:\Fullstack-WD-Bootcamp\Tasks\Python\1.1\cf-python\Exercise 1.1\Exercise 2.1> django-admin --version
5.0.6
```

Creating environment:

```
>>
PS D:\Fullstack-WD-Bootcamp\Tasks\Python\1.1\cf-python\Exercise 1.1\Exercise 2.1> achievement2-practice\Scripts\activate
>>
(achievement2-practice) PS D:\Fullstack-WD-Bootcamp\Tasks\Python\1.1\cf-python\Exercise 1.1\Exercise 2.1> 
```