

Task 2.1

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

Django is popular as it enables fast development and processing via its MVT architecture which also provides great scalability. Django follows the DRY principle which helps and encourages developers to keep the code organised. Other benefits of using Django includes its secure deployment and support of CDNs and content management via its admin interface which allows easy set up.

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

1. YouTube:

Django ensures that new features and updates are added in short period of time and eliminates the risk of making massive flaws while implementing

2. Instagram:

Django helps to process its large amount of data and perform user interaction rapidly under billion of daily usage

3. Spotify:

Django is used to handle Spotify's large amount of library with the huge amount of data which is accessible from any device

4. Pinterest:

Django is used to ensure the app's best performance with 250 million of users a month

5. Mozilla:

Django is used to manage high traffic and to improve efficiency under the heavy usage

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

- You need to develop web application with multiple users

I would use Django in this case as Django's MVT architecture allows the app easy to scale up (or down) according to the number of users

- You need fast deployment and the ability to make changes as you proceed
I would use Django in this case as the benefits of using Django includes its easy scalability and fast deployment
- You need to build a very basic application, which doesn't require any database access or file operations
I wouldn't use Django in this case as the app doesn't require any database interaction. Django's pre-written code is more server intensive and isn't suitable for simple app
- You want to build an application from scratch and want a lot of control over how it works
I wouldn't use as Django as it is a highly structured framework which requires certain steps and an exact manner, meaning that you have a less control over the internals of the system
- You are about to start working on a big project and are afraid of getting stuck and needing additional support
I would use Django as Django is designed for the rapid deployment and is suitable for large-scale project. Django also has a huge number of contributors which makes it easy to get support in case of encountering a problem

Checking Python's version:

```
PS C:\Users\mikia> py --list
Installed Pythons found by C:\WINDOWS\py.exe Launcher for Windows
-3.10-64 *
-3.8-64
```

Creating and activating the virtual environment, installing Django:

```
PS C:\Users\mikia\OneDrive\Desktop\CF-python\EX2.1> py -m venv achievement2-practice
PS C:\Users\mikia\OneDrive\Desktop\CF-python\EX2.1> .\achievement2-practice\Scripts\activate
(achievement2-practice) PS C:\Users\mikia\OneDrive\Desktop\CF-python\EX2.1> pip install django
Collecting django
  Downloading Django-4.2-py3-none-any.whl (8.0 MB)
    8.0/8.0 MB 10.9 MB/s eta 0:00:00Collecting asgiref<4,>=3.6.0
  Downloading asgiref-3.6.0-py3-none-any.whl (23 kB)
Collecting tzdata
  Downloading tzdata-2023.3-py2.py3-none-any.whl (341 kB)
    341.8/341.8 KB 20.7 MB/s eta 0:00:00Collecting sqlparse>=0.3.1
  Downloading sqlparse-0.4.3-py3-none-any.whl (42 kB)
    42.8/42.8 KB ? eta 0:00:00Installing collected packages: tzdata, sqlparse, asgiref, django
Successfully installed asgiref-3.6.0 django-4.2 sqlparse-0.4.3 tzdata-2023.3
WARNING: You are using pip version 22.0.4; however, version 23.1 is available.
You should consider upgrading via the 'C:\Users\mikia\OneDrive\Desktop\CF-python\EX2.1\achievement2-practice\Scripts\python.exe -m pip insta
ll --upgrade pip' command.
(achievement2-practice) PS C:\Users\mikia\OneDrive\Desktop\CF-python\EX2.1> django-admin --version
4.2
```

