# Achievement 2 - Exercise 1

1. One of the reasons why Django has become so popular is due to rapid development and pragmatic, clean design. The availability of packages it has, the huge supportive Django community and the documentation that exists makes the framework high calibre.

2. These companies use Django:

   - **YouTube:** it acts quickly and flawlessly, it helps them to maintain the speed of the website.

   - **Instagram**: it helps to scale the app, process huge amounts of data and manage interactions.

   - **Spotify**: this app uses Python alongside Django, fast backend and machine learning options are the main reasons why they chose this framework.

   - **Bitbucket**: also Python paired with Django, it offers them a considerable amount of "ready-to-implement" solutions.

   - **Pinterest**: it provides the app to scale effectively without affecting its speed and ensures excellent performance.

3. a) Due to Django having built-in functionality for authentication and authorization makes it easy to develop a Multi-User application.

   b) Django's "batteries-included" approach and the emphasis on DRY principle and its structure makes deploying and making changes "on-the-go" an excellent option.

   c) As Django utilises MVT architecture and we have to "stick" with the "rules", it would not be a great option for such a project.

   d) Due to Django's large community and amazing documentation, we would get good support in overcoming any issues and bugs.

4.

```
(web-dev) C:\Users\devle\OneDrive\Documents\CareerFoundry\Specialisation_Course\specialization-course-python>workon web-dev
(web-dev) C:\Users\devle\OneDrive\Documents\CareerFoundry\Specialisation_Course\specialization-course-python>py -m pip install Django
Collecting Django
  Downloading Django-5.0-py3-none-any.whl.metadata (4.1 kB)
Collecting asgiref>=3.7.0 (from Django)
  Downloading asgiref-3.7.2-py3-none-any.whl.metadata (9.2 kB)
Collecting sqlparse>=0.3.1 (from Django)
  Downloading sqlparse-0.4.4-py3-none-any.whl (41 kB)
                                                  41.2/41.2 kB 396.7 kB/s eta 0:00:00Collecting tzdata (from Django)
  Downloading tzdata-2023.3-py2.py3-none-any.whl (341 kB)
                                                  341.8/341.8 kB 5.3 MB/s eta 0:00:00Downloading Django-5.0-py3-none-any.whl (8.1 MB)
                                                  8.1/8.1 MB 28.9 MB/s eta 0:00:00Downloading asgiref-3.7.2-py3-none-any.whl (24 kB)
Installing collected packages: tzdata, sqlparse, asgiref, Django
Successfully installed Django-5.0 asgiref-3.7.2 sqlparse-0.4.4 tzdata-2023.3
(web-dev) C:\Users\devle\OneDrive\Documents\CareerFoundry\Specialisation_Course\specialization-course-python>django-admin --version
5.0
```

# Learning Journal 2.1

1. It certainly depends on the mission of the project, due to Django having a great amount of "built-in" features makes the development cost effective and efficient for the client and developers. Although the disadvantages would be to stick with "The Django Way" and can take some considerable amount of server processing and time if it's for a small project.

2. A notable distinction between MVC and MVT, apart from C (controller) and T (template), is that the scalability and reusability can make a great difference in the development time management, as different layers can be modified or scaled independently without impacting each other, this allows developers to work concurrently on different components facilitating parallel development.

3. > I want to be confident enough to work on a solo project.

   > From this achievement I expect to be proficient in both Python and Django and be able to manage large applications with them.

   > I did my Full Stack Immersion Course, however after studying Python I would like to see myself working as a backend developer.