Exercise 2.1: Getting Started with Django

Learning Goals

- Explain MVT architecture and compare it with MVC
- Summarize Django's benefits and drawbacks
- Install and get started with Django

Reflection Questions

1. Suppose you're a web developer in a company and need to decide if you'll use vanilla (plain) Python for a project, or a framework like Django instead. What are the advantages and drawbacks of each?

   Django has many designed advantages that make it popular among developers. It is designed to be implemented in Python which is easy to read and has powerful computational features, it facilitates fast development time because it comes pre-loaded with so many features, it is equipped for fast processing which can handle network transmissions and content delivery at high speeds, it follows DRY principles which leads to better overall code, it has robust support for CDNs, and is great for both scalability and security.
   Downsides are the fact that it is a highly structured framework that does not allow for much alteration by the developer and there are very specific steps that must be followed in order to use it called "The Django Way". It isn't always suited for simple projects either, if the project doesn't need file management of database access, then you probably don't need to use it. It's highly structured architecture could slow things down if you have a simple app and don't need all that functionality under the hood.

2. In your own words, what is the most significant advantage of Model View Template (MVT) architecture over Model View Controller (MVC) architecture?

   With MVT you don't have to write the code required to fetch the data from the database and map it to the URL, the MVT architecture does that for you. All you need to do is identify the items that are needed for the user and the framework template will do the rest.

3. Now that you've had an introduction to the Django framework, write down three goals you have for yourself and your learning process during this Achievement. You can reflect on the following questions if it helps:
   - What do you want to learn about Django?
     How to use it effectively.
   - What do you want to get out of this Achievement?
     A better comprehension of how to use Python and Django in a professional setting.
   - Where or what do you see yourself working on after you complete this Achievement?

Going through all my lessons again and working on practice code to deepen my understanding of coding enough to facilitate me getting a job.