

## 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?
  - a. Vanilla python without any extra layers or abstraction, which can be great for small, simple tasks. We'll need to handle configurations and setups that frameworks like Django automate, such as URL routing, server setups, and security features.
  - b. Django is designed for rapid development. It comes with many built-in features, such as an admin panel, user authentication, and database schema migrations, which can significantly speed up development time. Django's conventional setup and structure might be restrictive.
2. In your own words, what is the most significant advantage of Model View Template (MVT) architecture over Model View Controller (MVC) architecture?
  - a. The most significant advantage of the MVT over the MVC is how it handles the presentation layer. In MVT, the "Template" directly manages the presentation logic, separating the view logic more cleanly from the business logic compared to MVC, where views can sometimes become overly entangled with controller logic. This separation in MVT promotes more readable and maintainable code, particularly in web applications where the presentation layer often changes separately from the business logic.

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?
  - I aim to gain a comprehensive understanding of Django's built-in components like the ORM (Object-Relational Mapping), authentication systems, and its templating engine.
- What do you want to get out of this Achievement?
  - By the end of this achievement, I want to successfully implement at least one major project using Django, which could serve as a portfolio piece. This project should incorporate elements like user handling, database interactions, and perhaps integration with other web technologies.
- Where or what do you see yourself working on after you complete this Achievement?
  - I can see myself working on more Django based projects and further enhancing my skills.