

Exercise 2.3: Django Models

Learning Goals

Discuss Django models, the “M” part of Django’s MVT architecture
Create apps and models representing different parts of your web application
Write and run automated tests

Reflection Questions

1. Do some research on Django models. In your own words, write down how Django models work and what their benefits are. Django models are Python objects that Django use to access and manage data. They define the structure of a database table. Models work by firstly **defining** the model. At this step, you define what will be included in the columns of your table. Secondly, **registering** the model in the admin.py. This allows you to see the model under the Django site. Next, **migrating** which will create your tables in the database. This is achieved by running makemigrations and migrate in the terminal. Finally then **running the server** via the browser.

The benefits of using models are they make it easier to write unit tests, enforces consistency and ability to work with data in Python instead of needing to write raw SQL data.

2. In your own words, explain why it is crucial to write test cases from the beginning of a project. You can take an example project to explain your answer.

It is crucial to write test cases at the beginning of a project for many reasons. These reasons include:

- tests help prevent problems from occurring. This can help lessen the amount of bugs that need to be fixed as development continues
- tests save time later down the track. When tests are created prior to development, code is regularly monitored. This is particularly helpful as

applications grow overtime and issues in development are inevitable.

- tests support readability and when collaborating in larger projects, tests help as documentation about the project and special features