

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

- Do some research on Django models. In your own words, write down how Django models work and what their benefits are.
 - Django models help manage data in an app by defining how it is stored in the database. They act like templates for database tables and they make it easy to create, update, and retrieve data without writing SQL.
 - How They Work:
 - Models are Python classes that define database tables.
 - Each field in the model represents a column in the table.
 - Django automatically generates the database structure based on the models.
 - Benefits of Django Models:
 - Easy to use – No need to write complex SQL queries.
 - Faster development – Django handles database setup and changes.
 - Admin panel integration – Automatically works with Django’s built-in admin.
 - Data security – Protects against common security risks like SQL injection.
 - 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.
 - Writing test cases early helps catch errors before they become bigger problems. It also makes sure the app works as expected, even when changes are made later.
 - Why Tests Are Important:
 - Saves time – Fixing bugs early is easier than fixing them later.
 - Prevents problems – Catches issues before users see them.
 - Makes code more reliable – Ensures everything keeps working after updates.
 - Acts as documentation – Shows how the code is supposed to work.