

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 classes that define the structure of the related database tables. Each model represents a single table, and each attribute of the model becomes a column in that table. When a model is defined and migrated to the database Django's ORM handles all of the database communication, meaning the developer does not need to write any code that directly communicates with the database. This also allows for a consistent approach for writing code that will define the structure of a database table regardless of the specific database type's (e.g., SQLite, MySQL, PostgreSQL) syntax.

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.

Writing tests early on in the development of a project is important as this practice helps uncover and prevent bugs before they become larger, more time consuming problems to address later on in the project's development. Tests are also very useful for checking things like low-level details, such as making sure attribute max_length properties are set to the correct value, which could easily be overlooked if a developer is more focused on higher level concepts within a project.