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Week 12BE Research

Prompts

1. What is the difference between TDD and BDD?

- TDD Focuses on developing a feature of an app where BDD focuses on the behavior of the application.
- In TDD you write the test first which will fail because the method hasn't been written, then write the code that makes that test pass. Usually this is done by the developers and focuses on parts of the program not the program as a whole.
- In BDD you test the software from the users perspective and so that it achieves a user expectation. BDD involves not just developers, but also QA analysts possibly testers.

2. What does mocking a class allow you to do?

- Mocking a class lets you test a method or class without worrying about external dependencies like database connections or a web service. Mocking a class means that you create a fake class that can be given specific return values so you can control the input for your tests.

3. What is the value in separating your code into controller, service, and data access layers rather than keeping it all in the same files?

- It allows for quicker development, because different teams can write each layer.
- It makes the code easier to maintain because each layer is only responsible for one thing
- It allows for better security because the user never interacts with the database directly and the service layer can provide for business rules and verification
- It makes it easier to find and fix bugs because you can isolate which layer is having the problem

4. Why would you want to avoid putting credentials in plaintext in your code?

- Because they are not secure and anyone who can access your code can see them.
- Because it allows for SQLinjection attacks

5. What is one method that can be used to avoid putting plaintext database usernames and passwords into your code?

- https://www.geeksforgeeks.org/store-password-database/
- To prevent SQL injection attacks, we use prepared statements with parameters that get validated before being passed in.

Sources

https://www.geeksforgeeks.org/difference-between-bdd-vs-tdd-in-software-engineering/

https://testrigor.com/blog/tdd-vs-bdd-whats-the-difference-between-tdd-and-bdd/

https://vfunction.com/blog/the-benefits-of-a-three-layered-application-architecture/