

IS2545: Lecture 24

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Last lecture

Page Object Model

Software is built in an object oriented way, why don't we build our tests in an object oriented way?

Advantages of POM

- Cleaner easier to understand tests.
- Object repository is independent of test cases.
- Less changes to make when refactoring tests.

Hallmarks of POM

- One page object per page in web application.
- Segmentation.
- Every method returns a page object.

Front end unit testing

In the unit testing lecture and deliverable we only built unit tests for back end applications, but most applications are made up of a back end and a front end.

It may seem like front end automation is only a task for automated UI tests such as the ones we built using Selenium, but this is not the case.

Mutation testing

When we talked about unit testing we briefly talked about unit test code coverage.

Unit test code coverage is a good tool for testers to find code they missed during unit testing, but it's not the best metric to use for measuring quality of unit tests.

- Just because code is executed doesn't mean it's well tested.
- Perhaps not enough assertions or inappropriate assertions.
- We need a better way of measuring the quality of our unit tests.

Mutation testing

The practice of intentionally inserting defects into our application with the purpose of determining if our automated testing suite finds them.

Mutation testing may be used to test unit, integration, automated UI, or even manual tests.

Steps:

1. Insert mutations (can be done manually or automatically via a tool).
2. Execute test suite.
3. Insure tests fail.

Static Code Analysis
