Test Driven Development

Suren Shrestha

Automated Test

- What is it?

  - a bunch of code making sure another bunch of code work

Automated Test

- Why do we need it?
  - its DRY
  - can be reused in future
  - automated tests are the sensors for checking the health of software components
  - manual tests are tedious, imagine doing it in a system with 100s of requirements

Test Driven Development

- What is it?
  - practice where we write tests before we implement a feature
  - test against our design decisions

Test Driven Development

- Why do we need it?
    - It encourages us to design a system first
        - a well designed system is likely to have fewer bugs and more stable
    - It encourages us to test every possible aspects of a component
        - e.g. Validation of user's name during registration

Tips

- Tools
  - Pytest
    - integrates well with frameworks like Django.
    - shows extra details on test failure
    - https://pytest.org/
  - Code coverage
    - tools which display reports on % of code being covered by the tests
  - Model Mommy -
    - auto generates data for model fields
    - https://github.com/vandersonmota/model_mommy

Performance

- use in memory database e.g. SQLite
- reuse database
- use mocks

Thank You

- https://github.com/ludbek
- sth.srn@gmail.com