Test-Driven Development

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Opening Discussion

- Projects
  - John Greene
  - HEB
- Who has used unit testing?
- Who has done test-driven development?
- General questions?

Values of TDD

- Speed
  - Get into a good rhythm.
- Simplicity
  - Don't do things you don't have to.
- Small steps
  - Don't try to do too much at one time.
- Keep focus
  - Don't let other changes distract you. Write code to finish this change even if you know you will undo it soon.

TDD Rhythm

- Add a test.

- Run all tests – The new one fails.

- Make a little change.

- Run all tests – Now they succeed.

- Refactor to remove duplication.

Refactoring

- Updating code without changing functionality.
- After a refactoring the code does exactly the same thing it did before from the user perspective.
- You update smelly code.

TDD Principles

- Test First

- Automated Test

- Test List

- One Step Test

- Fake it ('Til You Make It)

- Production code is driven into existence by tests.

- Triangulation

- Isolated Test

More Principles

- Evident Data – Magic numbers are bad.

- Representative Data

- Assert First

- Obvious Implementation

- Evident Tests

- Break

Closing Comments

- Seen anything cool on the web recently?