Development Tips

CSSE6400

Brae Webb

May 16, 2022

What did we *learn* from the cloud assignment?

What did we *learn* from the cloud assignment?

Answer

Cloud development is *painful*?

How can we make this *less* painful?

Some ideas

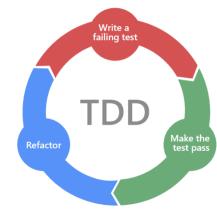
- 1. Gain confidence through *testing*
- 2. Automate what you're repeating
- 3. Tighten feedback loop as much as possible
- 4. Log and monitor what you can

Gain confidence through *testing*

The testing elephant in the room

Test-driven development

TDD in theory



[1]

What do you primarily get from TDD?

1. Regression tests (confidence)

What do you primarily get from TDD?

- 1. Regression tests (confidence)
- 2. Small isolated components

Do you have to use TDD to get these benefits?

Do you have to use TDD to get these benefits?

Answer

No.

Do you have to use TDD to get these benefits?

Answer

No. But it can make it easier.

When should you write a test?

When should you write a test?

Answer

Whenever you are checking manually something often

Checking the endpoints your API.

- Checking the endpoints your API.
- Checking a feature in the frontend of your interface.

Automate what you're repeating

Running tests.

- Running tests.
- Starting locally and running tests locally.

- Running tests.
- Starting locally and running tests locally.
- Deployment (deploy.sh).

- Running tests.
- Starting locally and running tests locally.
- Deployment (deploy.sh).
- Deployment and running tests.

Tighten feedback loop as much as possible

ExamplesContainers

- Containers
- Local database (docker-compose)

- Containers
- Local database (docker-compose)
- Local cloud services (e.g. S3)

Log and monitor what you can

Refer to week 9 content

Enable CloudWatch on EC2

Aside

Environment variables

References

[1] Marsner Technologies.

Why test-driven development (tdd).

https://marsner.com/blog/why-test-driven-development-tdd/.