

# Development Tips

CSSE6400

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Question

What did we *learn* from the cloud assignment?

### Question

What did we *learn* from the cloud assignment?

### Answer

Cloud development is *painful*?

Question

How can we make this *less* painful?

## Some ideas

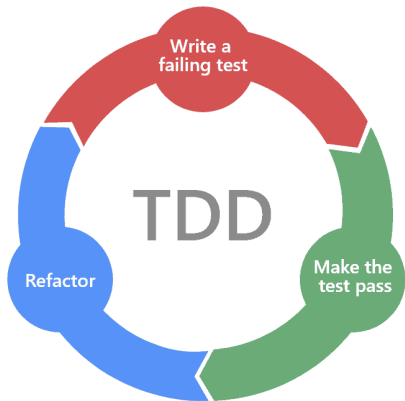
1. Gain confidence through *testing*
2. *Automate* what you're repeating
3. *Tighten feedback loop* as much as possible
4. *Log and monitor* what you can

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)

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

Question

Do you have to use TDD to get these benefits?

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Answer

No.

### Question

Do you have to use TDD to get these benefits?

### Answer

No. But it can make it easier.

Question

When should you write a test?

Question

When should you write a test?

Answer

Whenever you are checking manually something often

## Examples

- Checking the endpoints your API.



## Examples

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

*Automate* what you're repeating

## Examples

- Running tests.

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- Starting locally and running tests locally.

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- Deployment (`deploy.sh`).

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- Deployment (`deploy.sh`).
- Deployment and running tests.

*Tighten feedback loop* as much as possible

## Examples

- Containers



## Examples

- Containers
- Local database (docker-compose)

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

*Log and monitor* what you can

Refer to week 9 content

Tip

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/>.