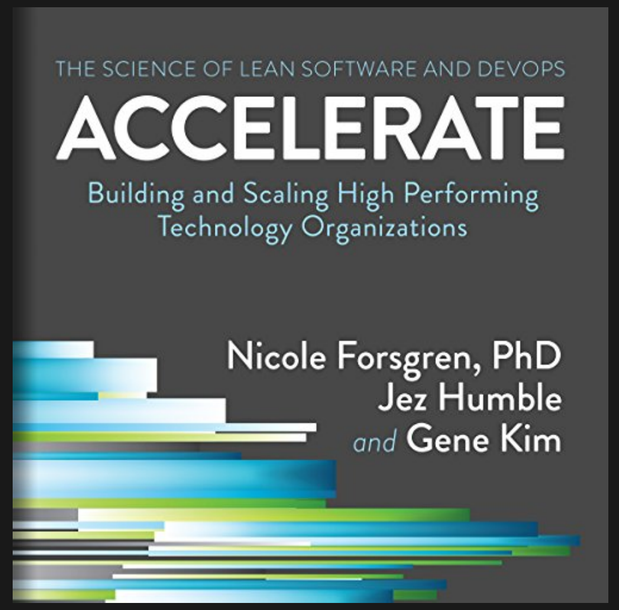
Continuous Deployment with Kubernetes basics

Wojciech Barczyński
wbarczynski.pro@gmail.com

Why

- **Lead Time**
- **Deployment Frequency**
- Mean Time to Recovery
- Change to Fail



See also DevOps Handbook and Pracice of Cloud Sys Administrator

Basics

As in developement, we fight the complexity:

- decoupling
- cutting dependencies
- removing dead code

Conventions

over tools!

- Copy&paste: Makefile, .gitlab-ci.yml, README.md, Dockerfile, helm, ...
- Change few lines
- You are ready to go

Conventions

over tools!

- Tools also leads to rigity [*]
- Rigity and Coupling = Complexity
- Extracting/Discovering tools should be ongoing process

[*] aka shall we extract a common module?

Conventions

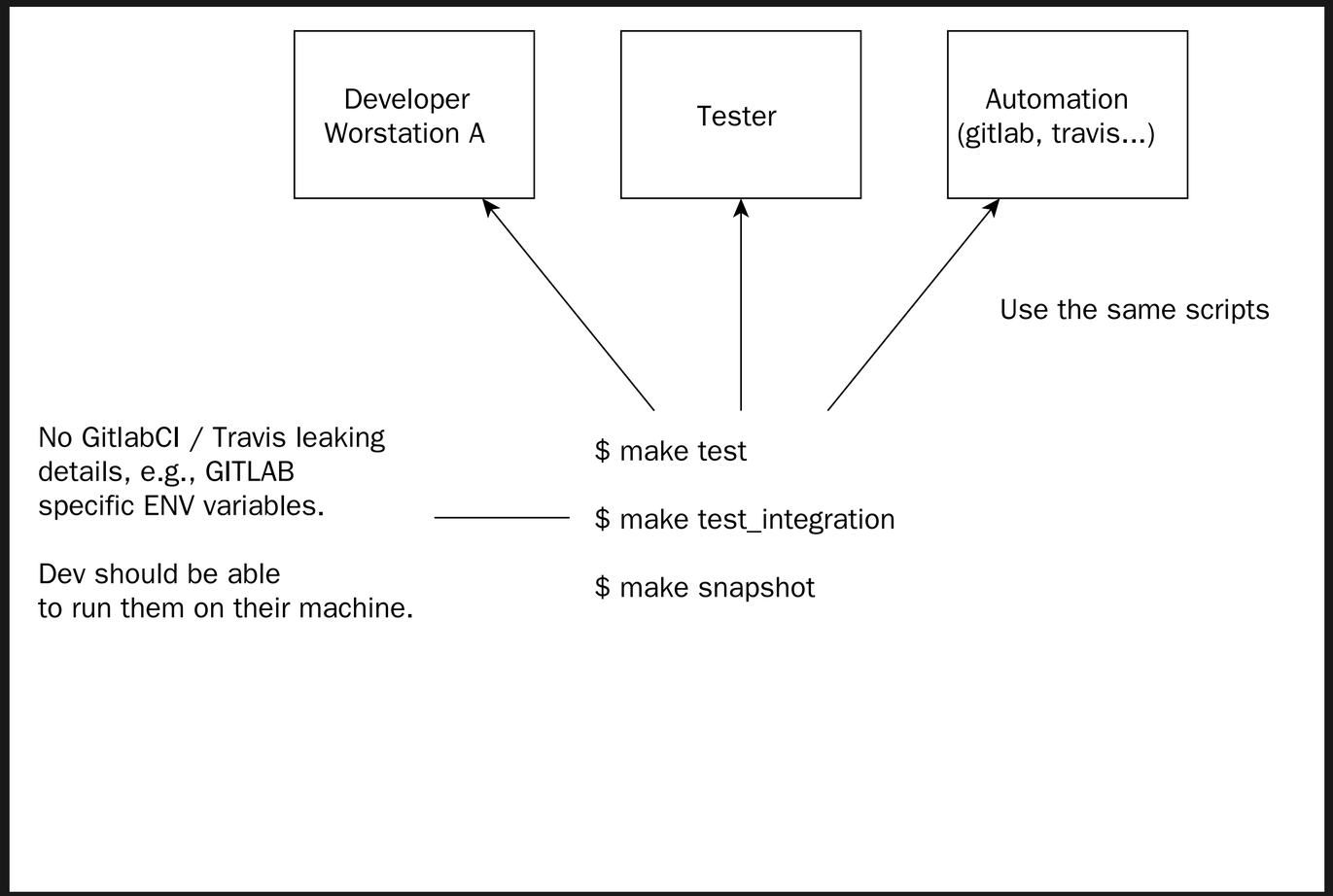
over tools!

As many as possible steps from our CI/CD should be runnable on your laptop.

Principles

- CD starts at the developer workstation
- every dev and tool do things the same way (parity)

Basics



Makefile or your tool of choice

Basics

```
|-.gitlabci/
|     \- ...
|
|- deployment
|     |- kube-service.yaml
|     \- kube-deployment.yaml
|
|- tools/
|     \- Makefile.ext
|
|- Dockerfile
\- Makefile
```

ITERATION 1

- helm or kustomize

ITERATION 2

- helm

ITERATION 3

- helm + ...

Slide 1

Slide 2