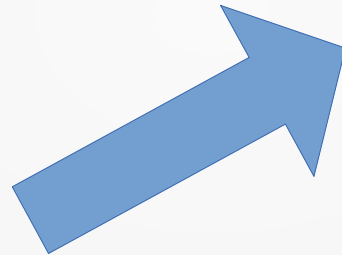


Nowoczesne Techniki Dostarczania Oprogramowania

Sławek Piotrowski

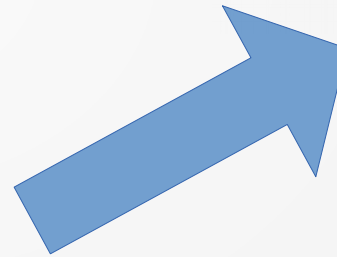
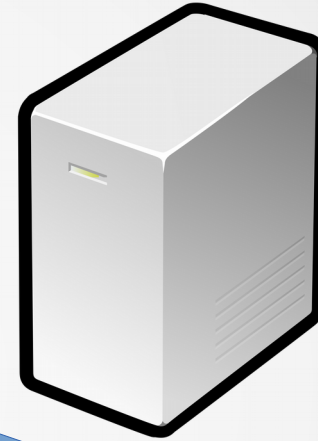
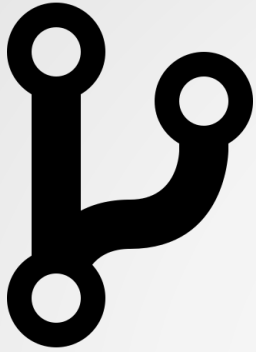
At the beginning there was a...



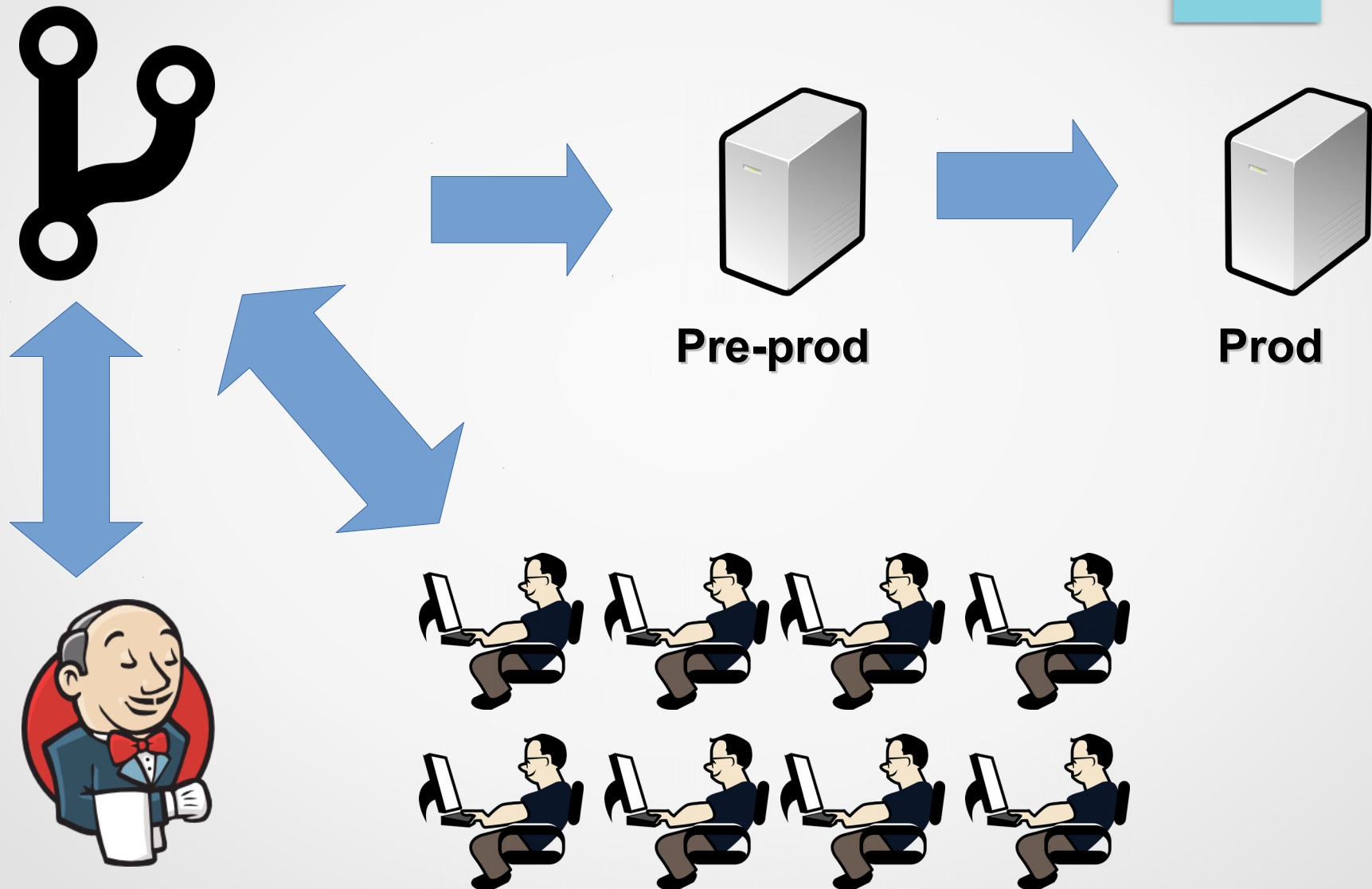
Programmers and servers



We are growing



We are growing



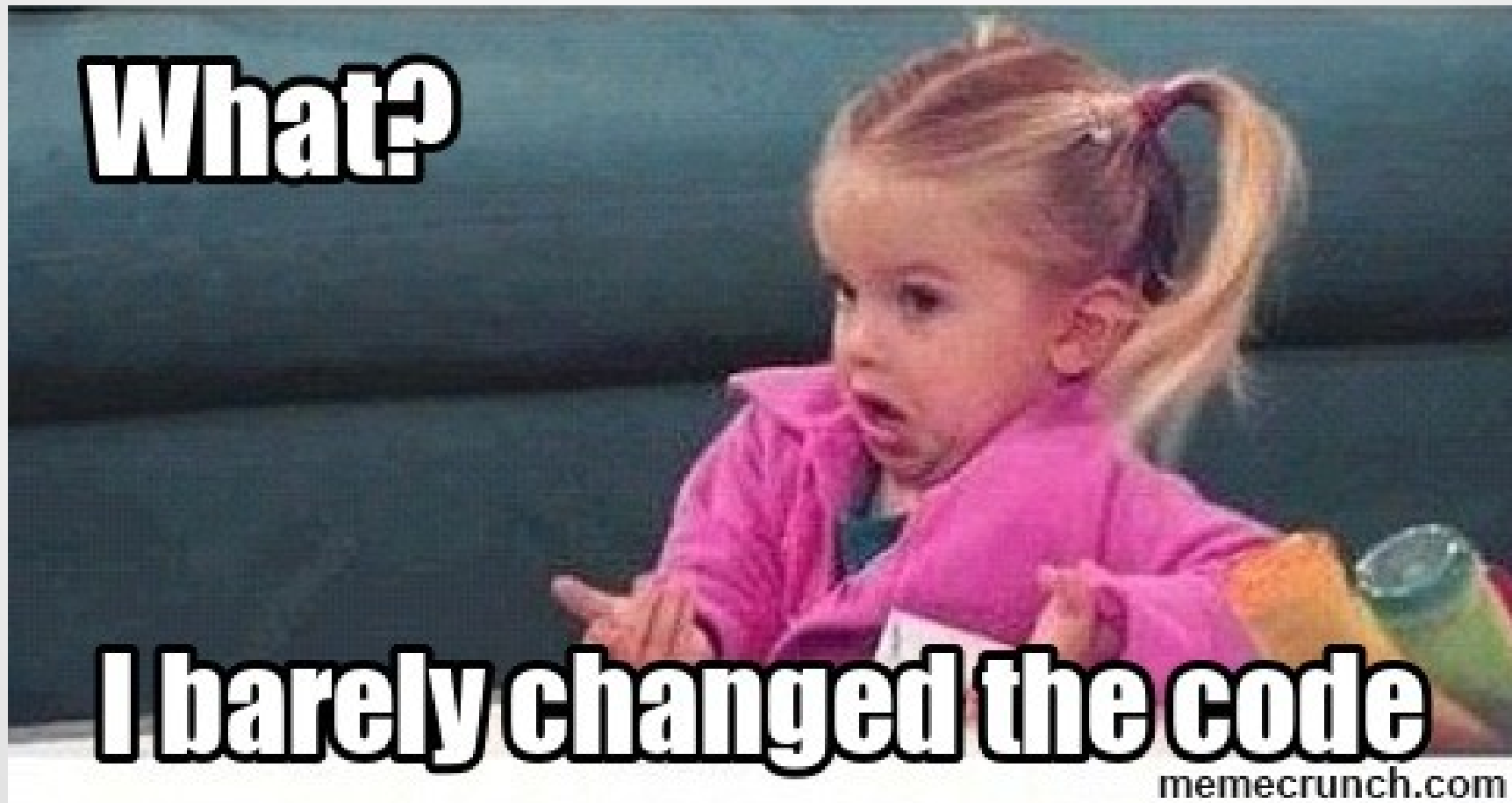
Broken build



Broken build



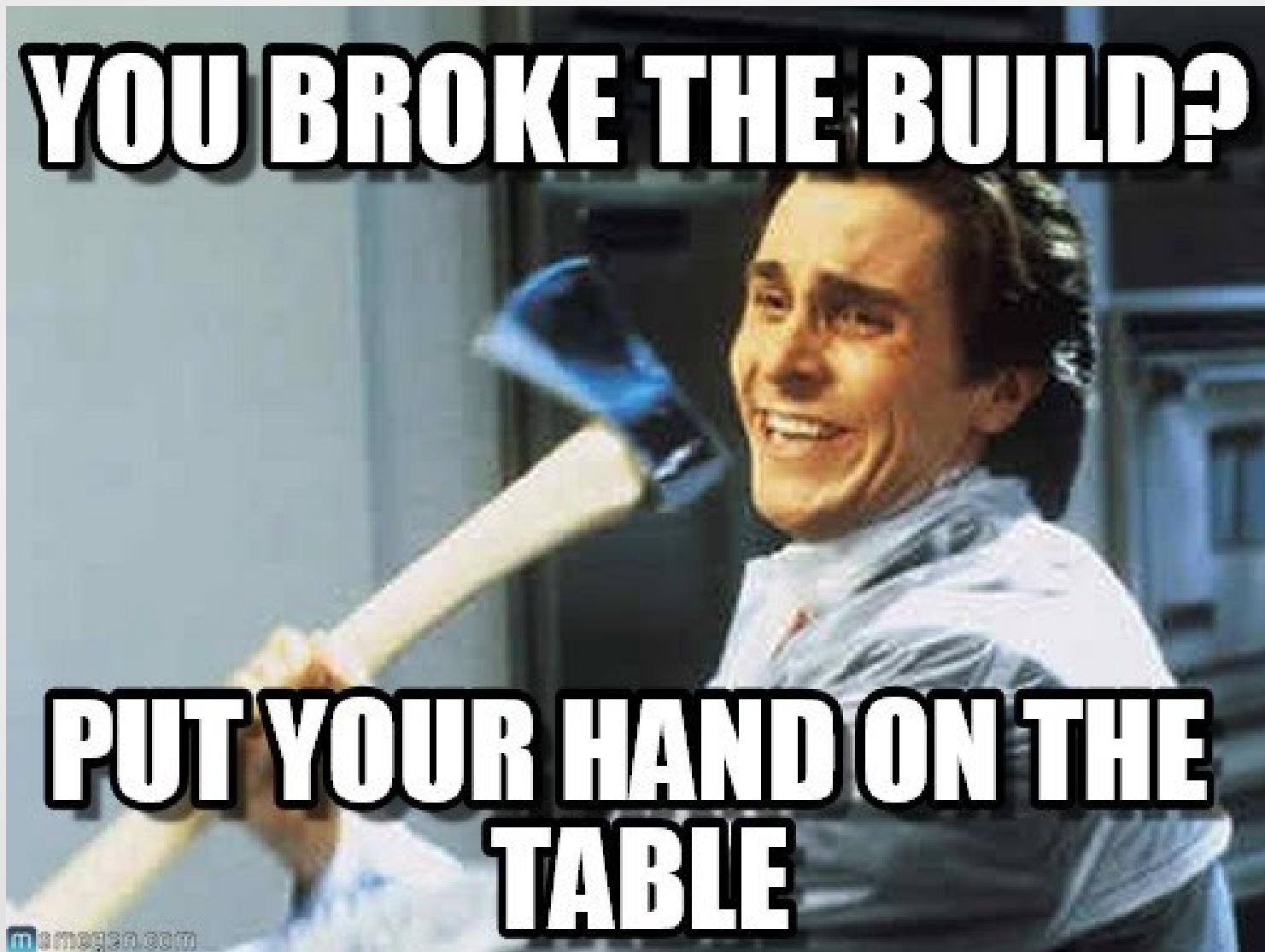
Broken build



Broken build



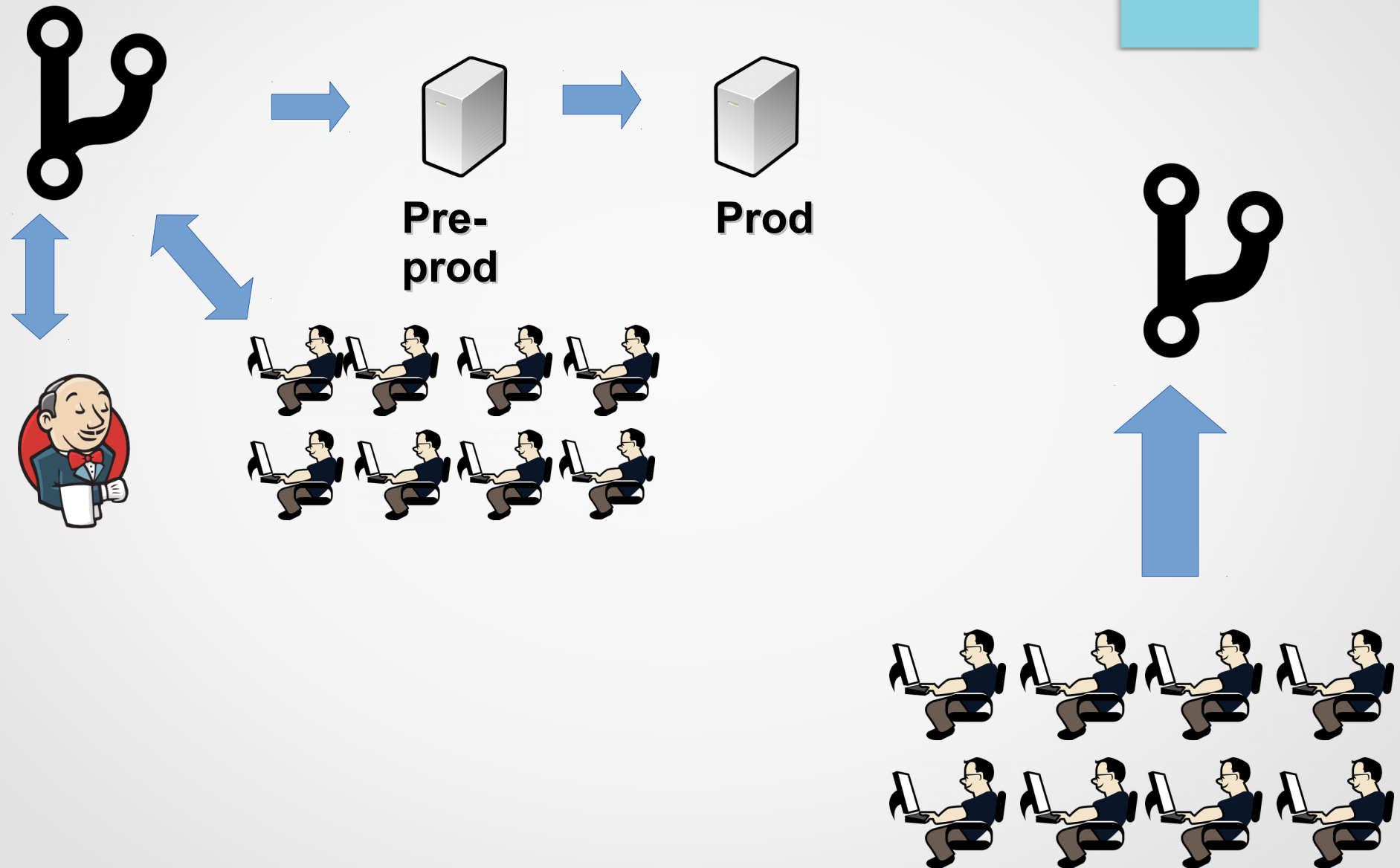
Broken build



Broken build



Continuous Disintegration



What is wrong

- **One person can block everyone**
- **Slow feedback**
- **Appliction is not deployable**

Wrong notion of done



1. `git commit`

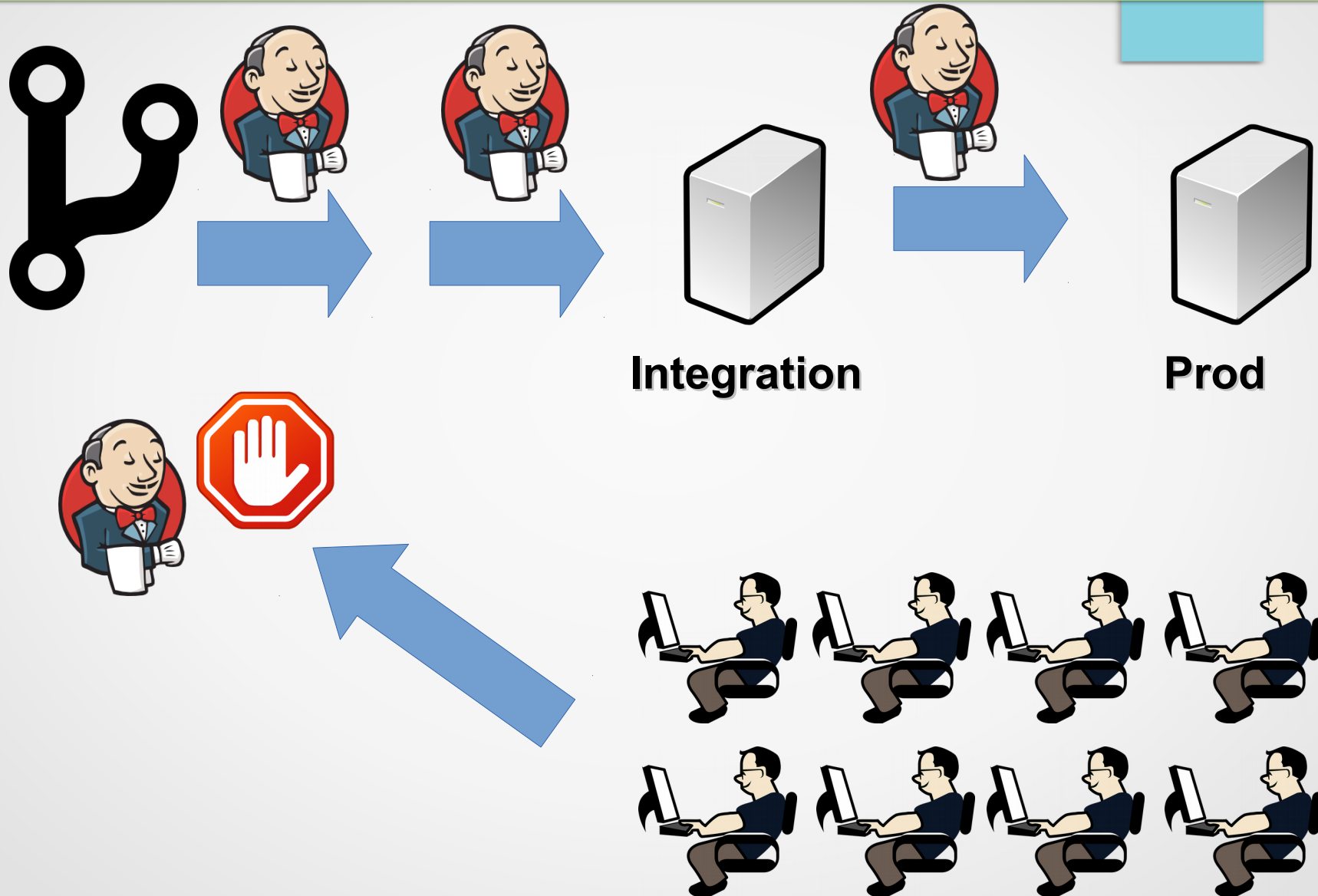


2. `git push`



3. leave building

Deployment pipeline



Continuous Integration

- **Compilation**
- **Unit Tests**
- **Code Review**
- **Static analysis (PMD, FindBugs)**
- **Code Formatting Style (Checkstyle)**
- **Build Docker container**
- **Integration tests on running container**
- **Database migration scripts test**

Pre-submit

All of that before your code goes to master

Code Review

- **Do not try to find the bugs**
- **Check unit tests**
- **Check for „good taste“**
- **Learn from your colleagues**

Continuous Deployment

All from CI plus:

- **Deployment to integration environment**
- **Execution of database migration scripts**
- **Long integration and performance tests**
- **Deployment to production environment**

CI/CD

All from CI plus:

- **Deployment to integration environment**
- **Execution of database migration scripts**
- **Long integration and performance tests**
- **Deployment to production environment**

CI/CD

I built CI/CD solutions in 2 companies.

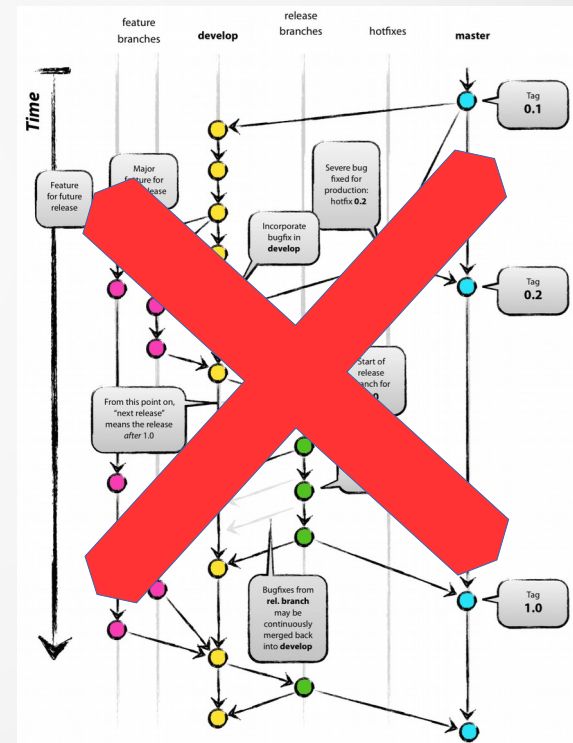
- **It takes time**
- **Everyone wants that**

JFactory

- **final solution for CI/CD**
- **based on Docker and Docker Compose**

Tips

- Small changes is small risk
- No feature branches
- Keep everything in code



Tips

- feature flags, see: **togglz**
- componentization, see: **SOA**

A few statistics

More than 1000 reviews

- Patchsets per review: 2,26
- Comments per review: 1,09
- Merged 86%
- Abandoned: 10%

TODO

- **Docker 1.12 support (Jenkins plugin broken)**
- **Gerrit upgrade**
- **Static analysis as Gerrit comments**
- **Templates for frameworks and languages**
- **Unit tests should fail without implementation**
- **Incremental compilation**

Questions