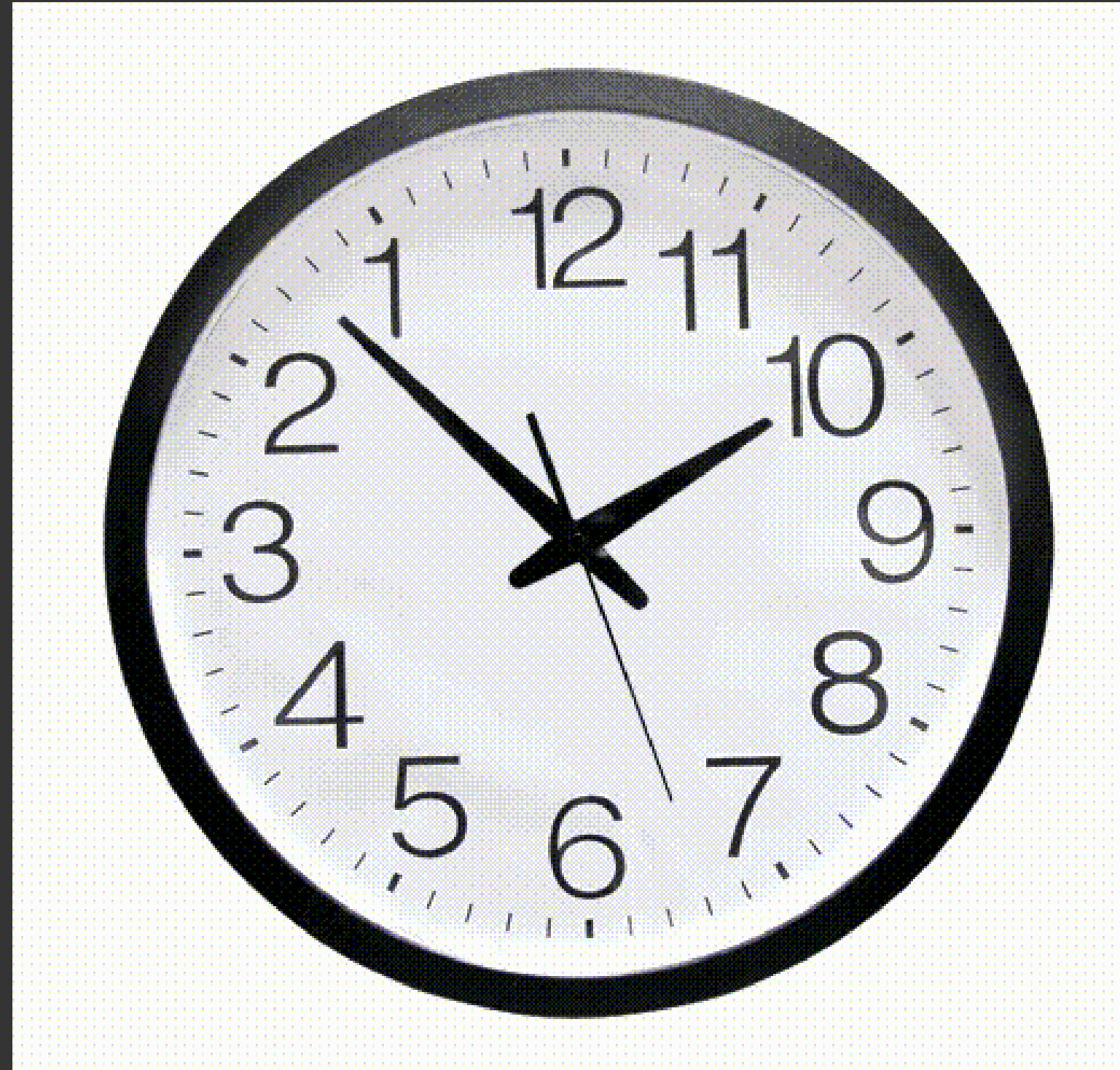


Demystifying CI/CD

TickTock



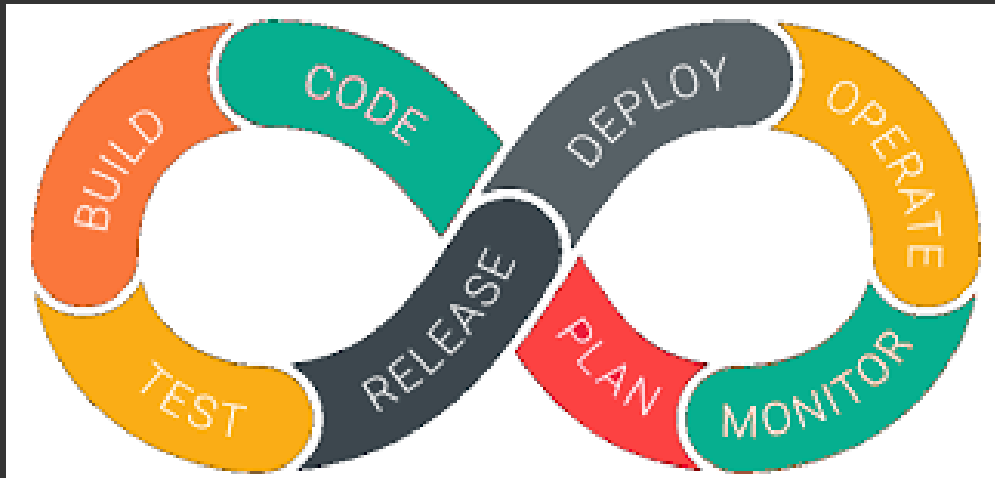


Head of DevRel
 circleci

"DevOps"

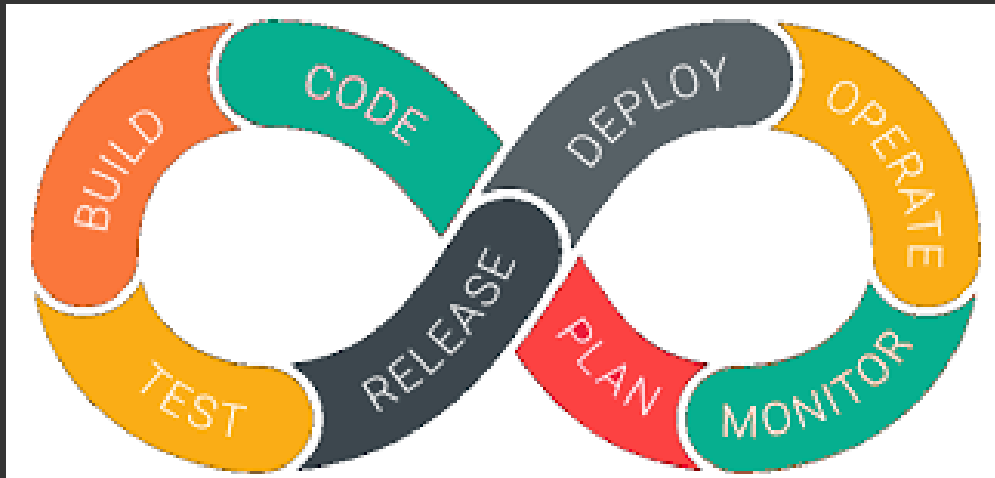


DevOps Lifecycle

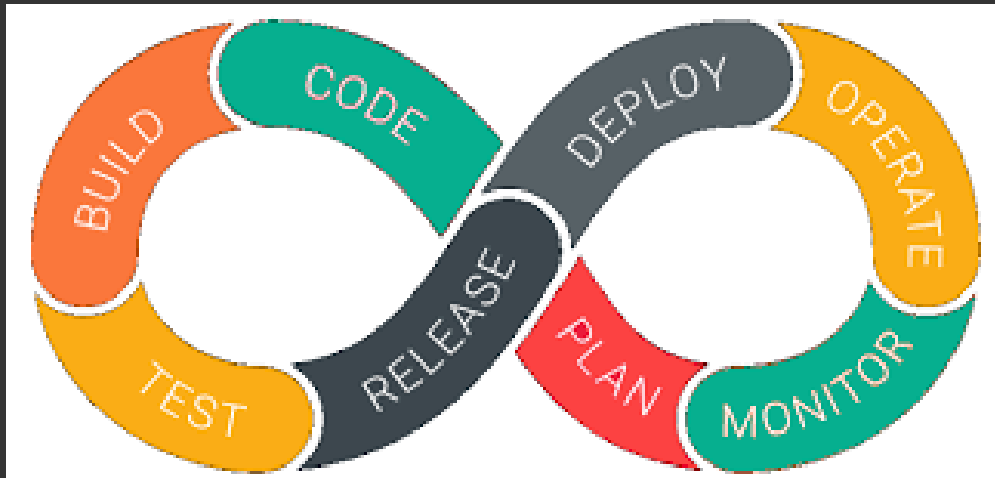


- Plan

DevOps Lifecycle

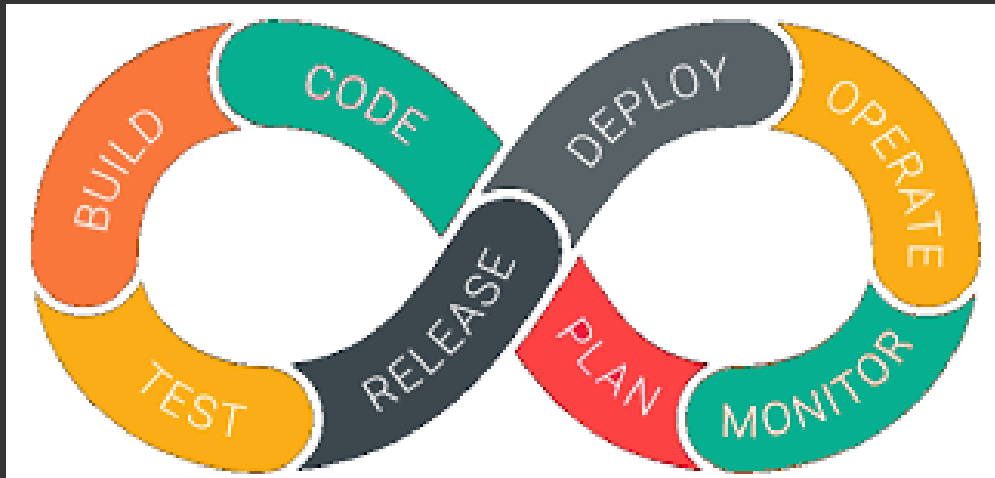


DevOps Lifecycle



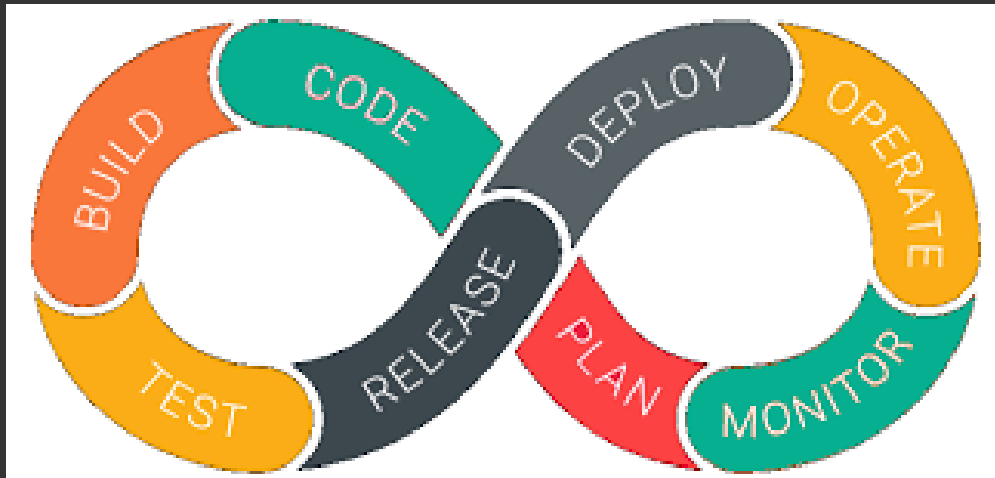
- Plan
- Code

DevOps Lifecycle



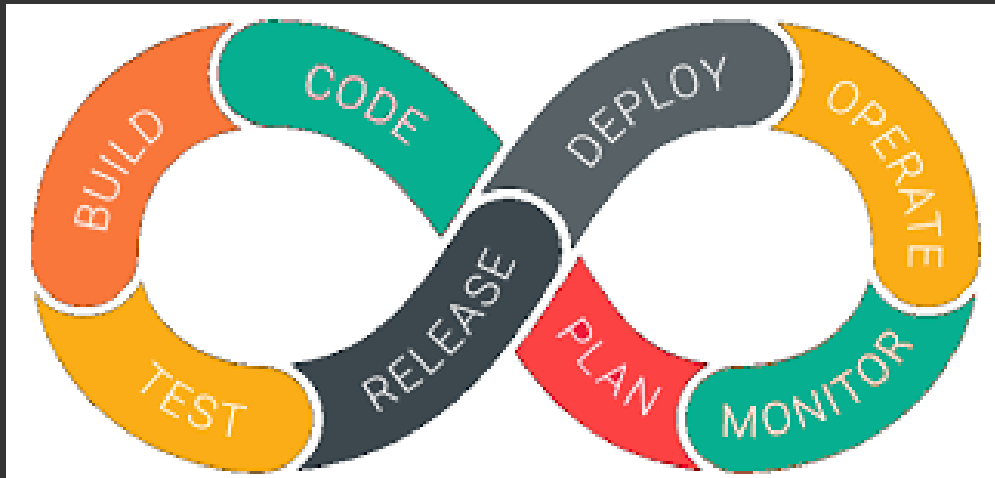
- Plan
- Code
- Build

DevOps Lifecycle



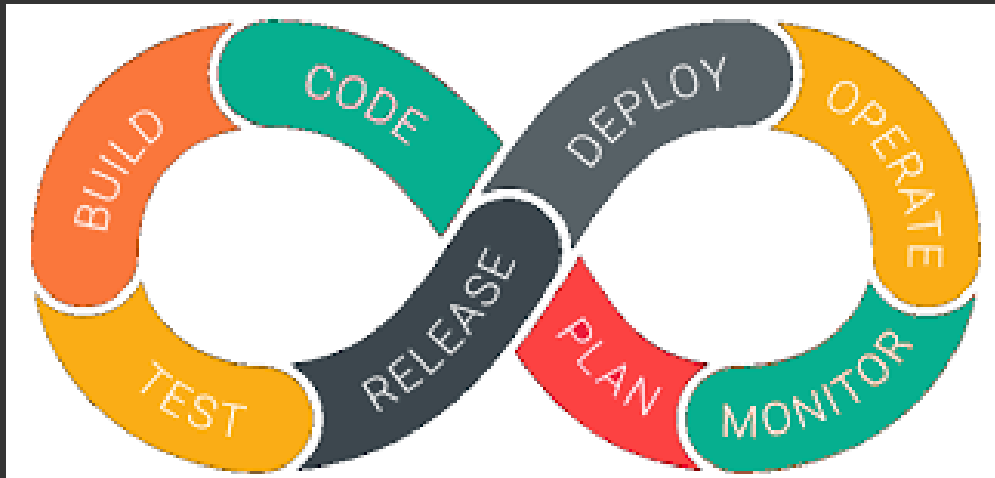
- Plan
- Code
- Build
- Test

DevOps Lifecycle



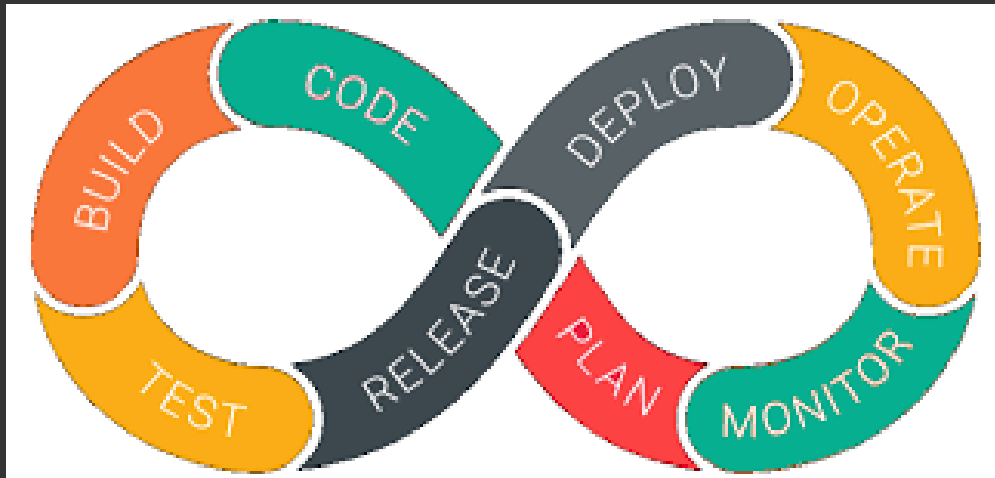
- Plan
- Code
- Build
- Test
- Releases

DevOps Lifecycle



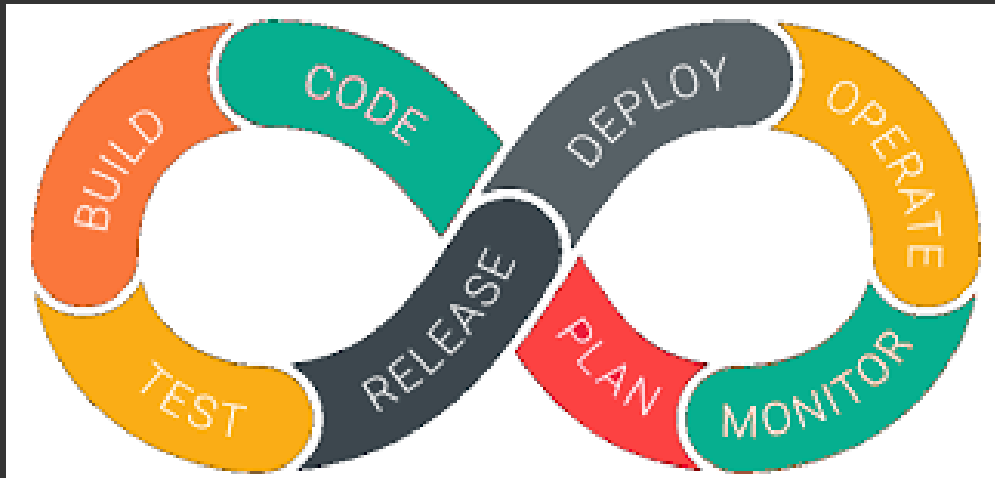
- Plan
- Code
- Build
- Test
- Releases
- Deploy

DevOps Lifecycle



- Plan
- Code
- Build
- Test
- Releases
- Deploy
- Operate

DevOps Lifecycle



- Plan
- Code
- Build
- Test
- Releases
- Deploy
- Operate
- Monitor

Continuous {Integration|Delivery}

"CI"

- Merge code changes often

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- Run automated tests to validate builds

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- Only integrate tested code into code base

"CI"

- Merge code changes often
- Run automated tests to validate builds
- Only integrate tested code into code base
- Changes frequently merged into release branches

"CD"

- Faster release cycles

"CD"

"CD"

- Faster release cycles
- Low-risk releases

"CD"

- Faster release cycles
- Low-risk releases
- Higher quality

"CD"

- Faster release cycles
- Low-risk releases
- Higher quality
- Lower costs

**So now can I
CI/CD?**

CI or CD?

Code creation

Code orchestration

Code logistics

Benefits of CI

Benefits of CI

- Improve team productivity and efficiency

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- Accelerate speed to market

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Benefits of CI

- Improve team productivity and efficiency
- Accelerate speed to market
- Identify product/market fit
- Release higher quality, more stable products
- Increase customer satisfaction
- Keep developers happy and shipping code

Say *WHAT*
about benefits?

I feel the need....
the need for *SPEED*!

I feel the need....
the need for *SPEED!*

1. Customers get access to new features faster

I feel the need.... the need for *SPEED*!

1. Customers get access to new features faster
2. Company gets a faster ROI from new features

**So now we
CI?**

Make sure
everyone is on
the same page

Always start
small

Do what works
for you

Always
measure

Do not try to
automate
everything

Proof of concept

- A rigorous testing practice

Proof of
concept

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- A rigorous testing practice
- Consistent software environments

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- Consistent software environments
- Training on continuous integration practices.

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- A rigorous testing practice
- Consistent software environments
- Training on continuous integration practices.
- Reports to measure key metrics.

CI/CD Better Practices

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- Make testing an integral part of the development process.

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- Ensure that the testing environment mirrors production.
- Use coding better practices, such as pair programming.
- Automate the deploy workflow.

Key CI/CD Metrics

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- Lead time

Key CI/CD Metrics

- Lead time
- Deployment frequency

Key CI/CD Metrics

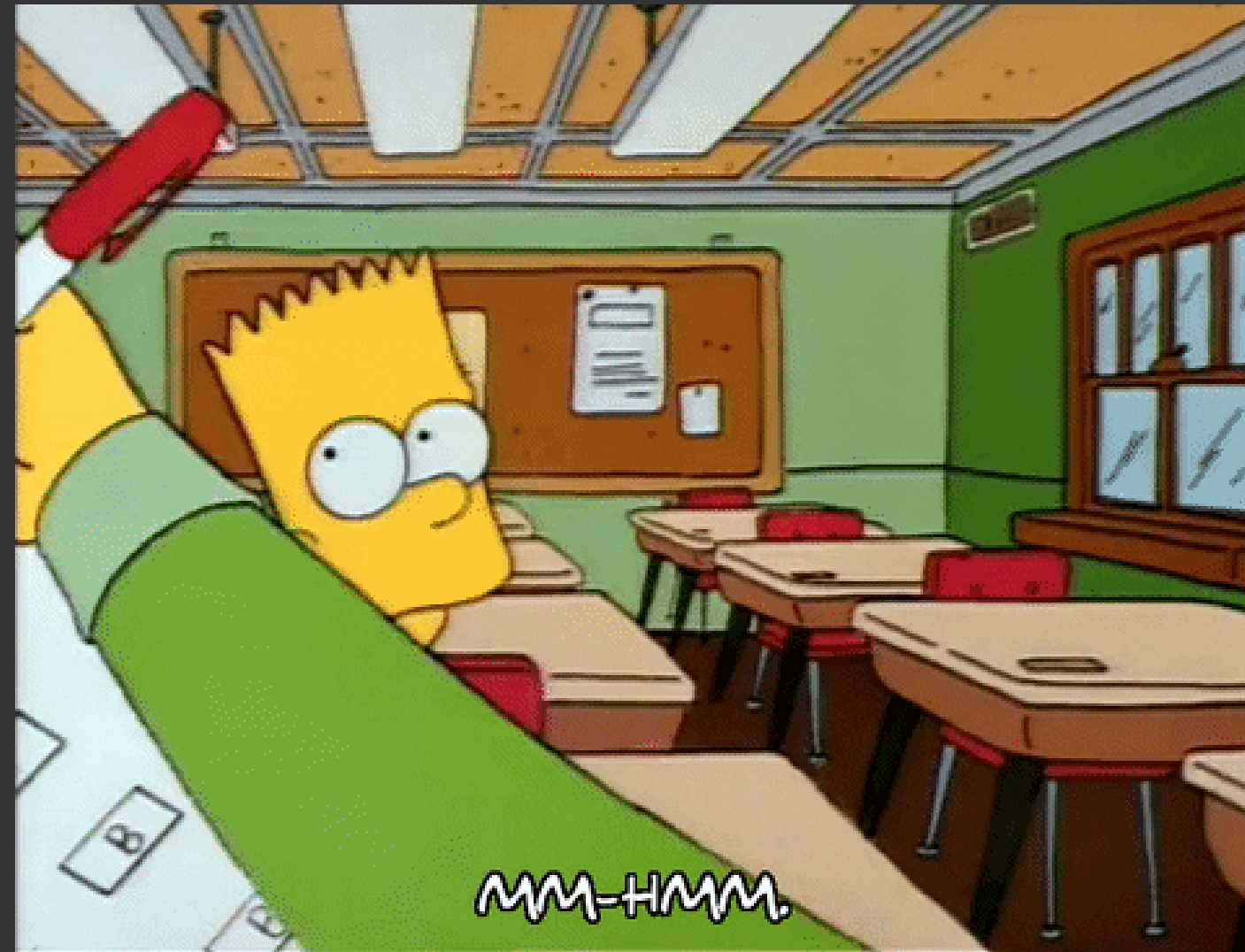
- Lead time
- Deployment frequency
- Mean time to recovery (MTTR)

Key CI/CD Metrics

- Lead time
- Deployment frequency
- Mean time to recovery (MTTR)
- Change fail percentage

Regular
cadence

TESTING



Continuous Testing

Unit/component tests

Integration tests

UI layer testing

Resources

- "DevOps for Dummies" - Emily Freeman
- "Accelerate" by Forsgren, Humble, & Kim
- "The DevOps Handbook" by Kim, Debois, Willis, Humble, & Allspaw
- "Continuous Delivery" - Martin Fowler
- "Continuous Delivery vs Continuous Deployment" - Jez Humble

Thank You

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