# DevOps

CIS 640 Guest Lecture
Spring 2022

software DEVelopment

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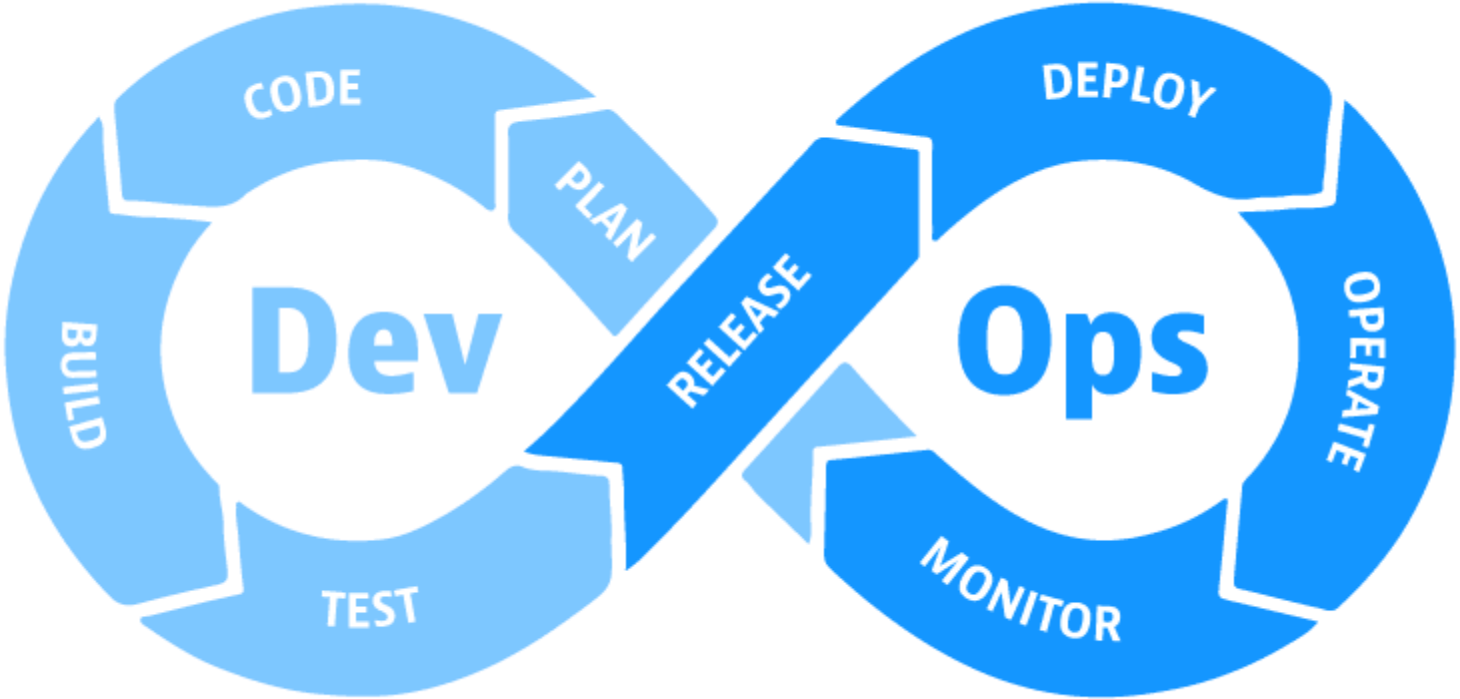
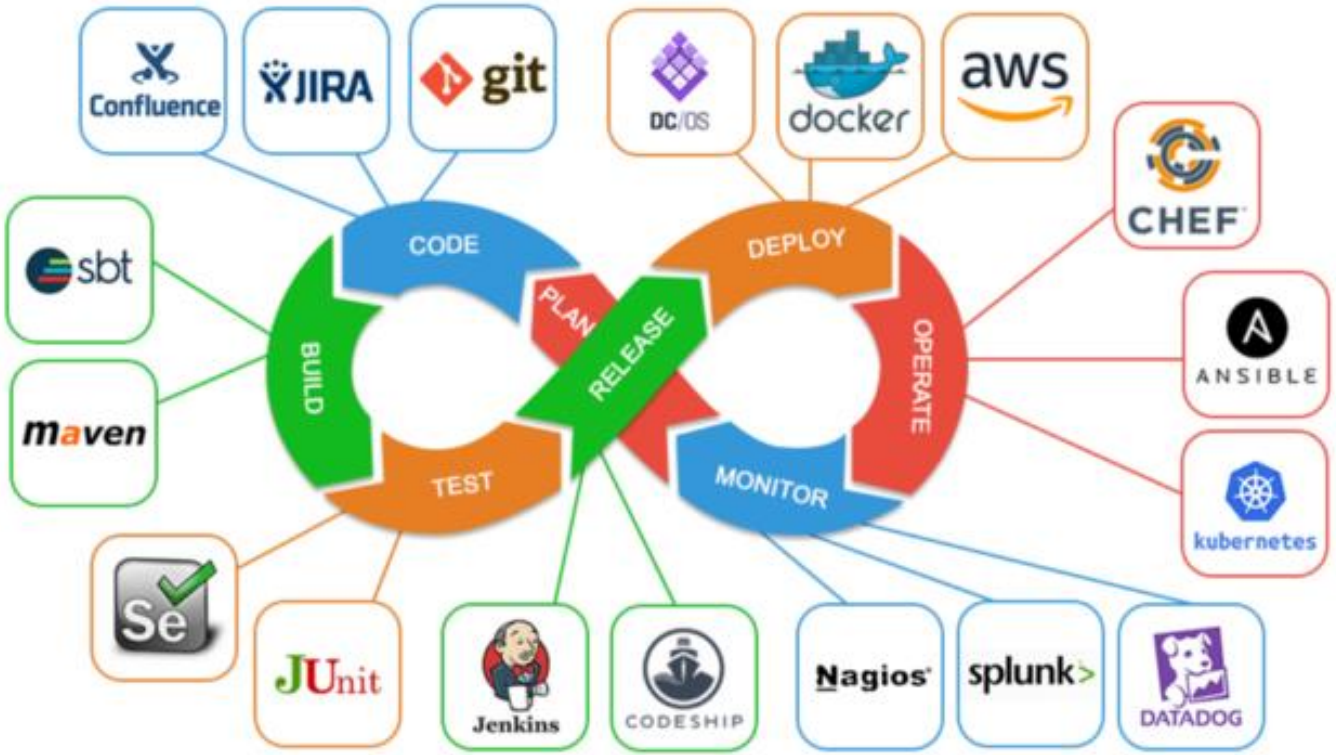
DevOps

https://en.wikipedia.org/wiki/DevOps

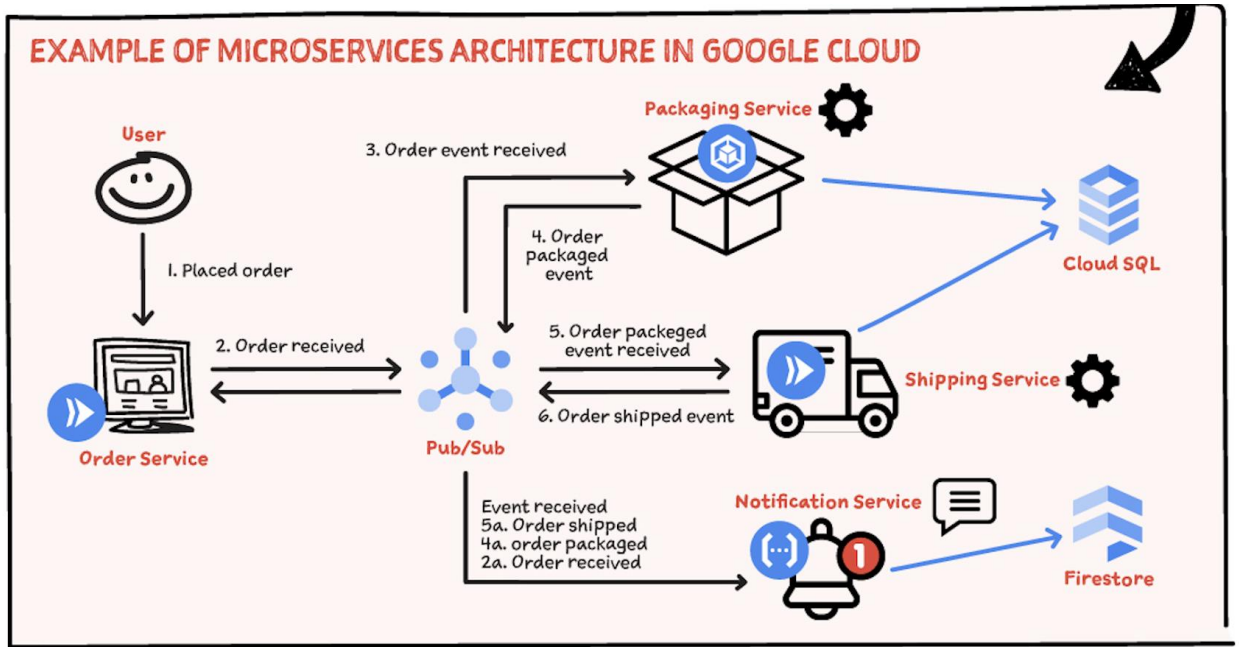



https://www.dynatrace.com/news/blog/what-is-devops/



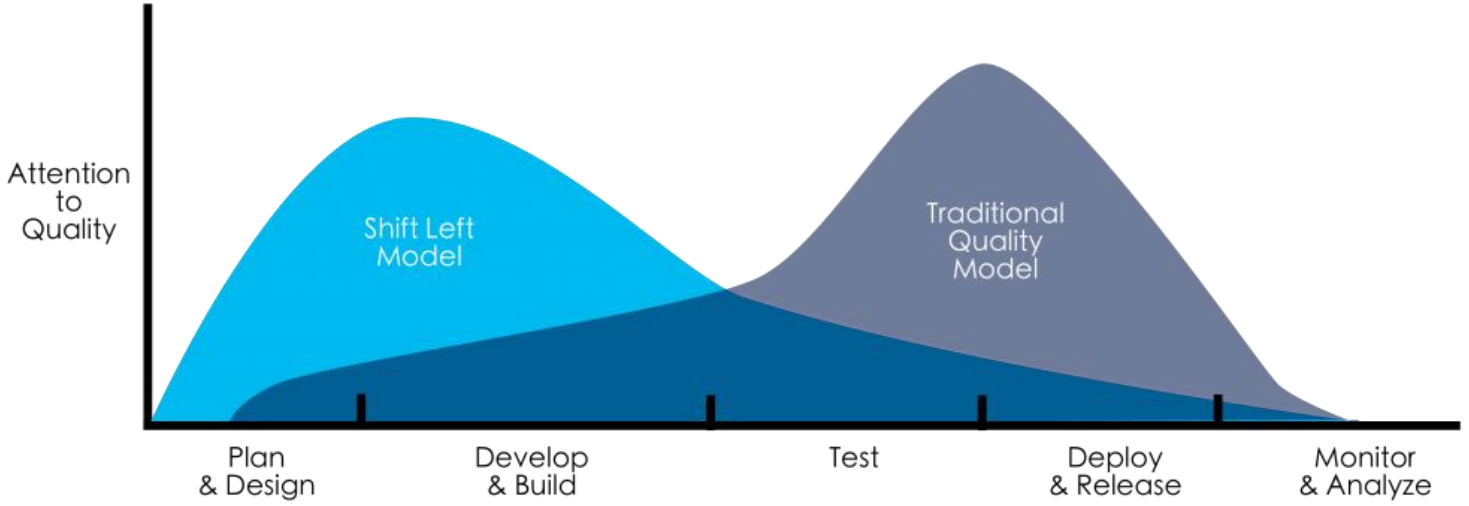

https://medium.com/swlh/how-to-become-an-devops-engineer-in-2020-80b8740d5a52

# Plan: Microservices



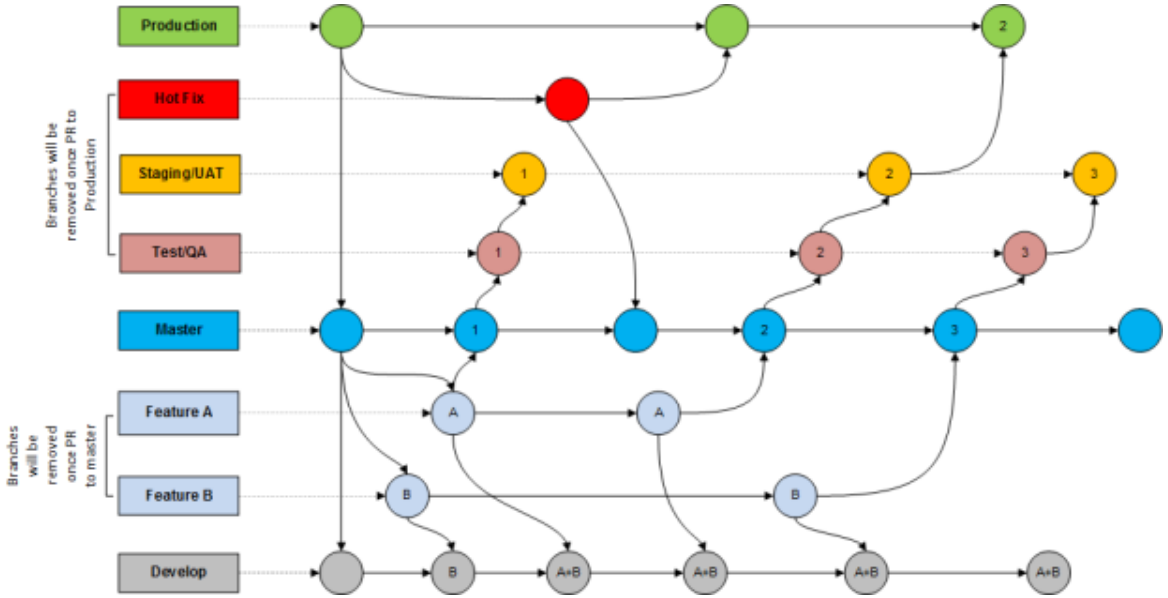

https://cloud.google.com/blog/topics/developers-practitioners/microservices-architecture-google-cloud

# Shift Left



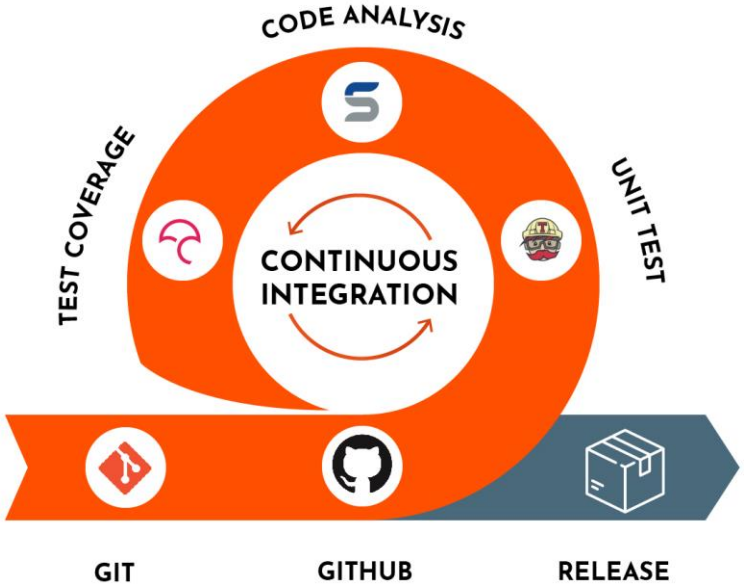

https://devopedia.org/shift-left

# Code: Branching Strategy



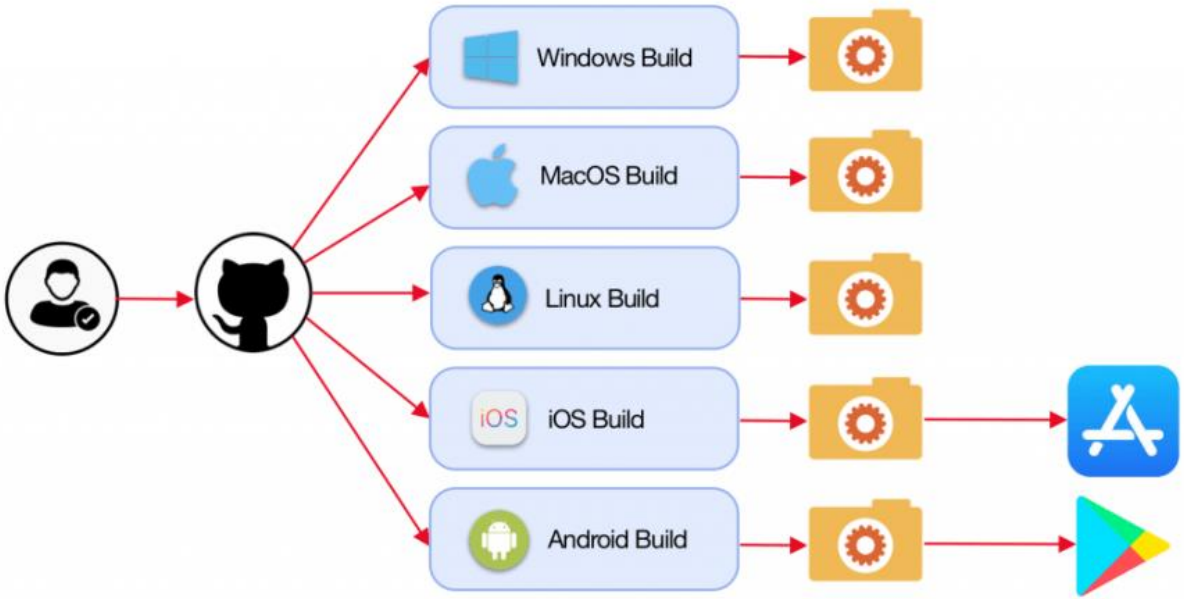

https://born4joy.wordpress.com/2019/05/10/sitecore-devops-a-b-c/

# Continuous Integration



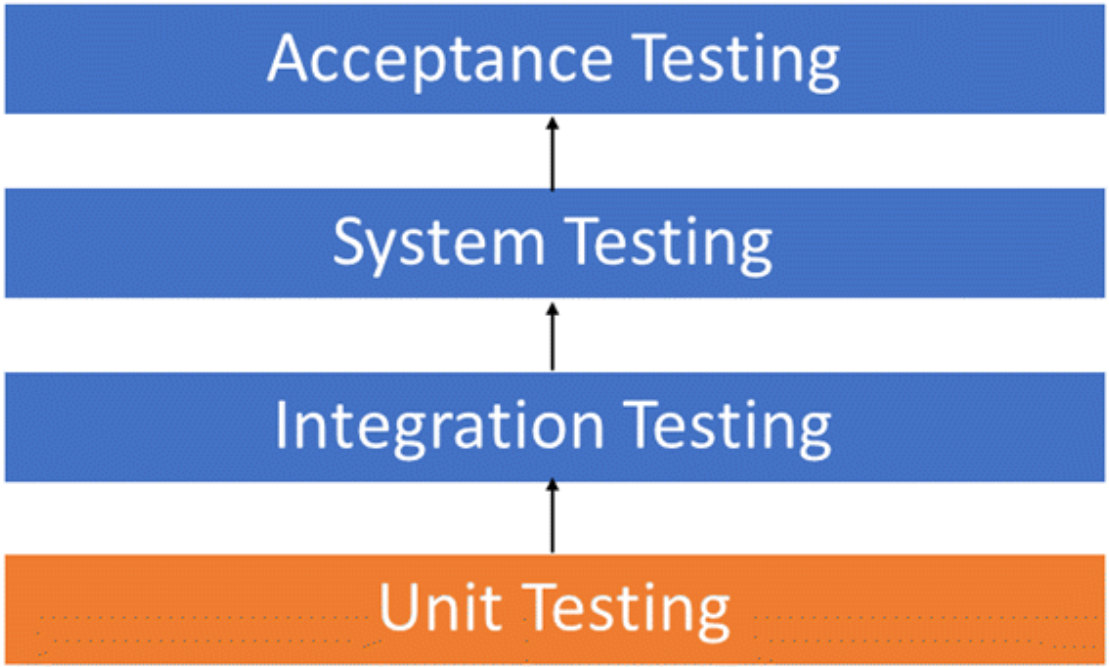

https://en.wikipedia.org/wiki/Continuous_integration
https://www.devonblog.com/continuous-delivery/continuous-integration-best-practices/

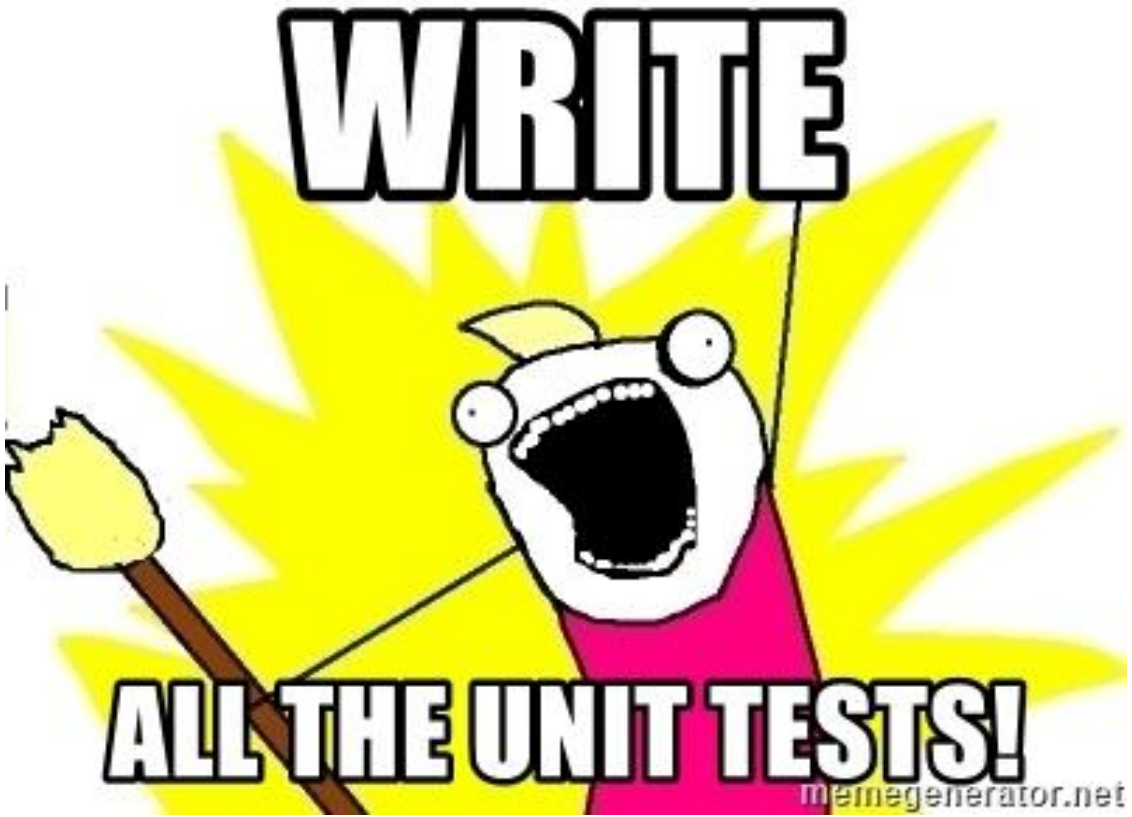
# **Build**: Automation

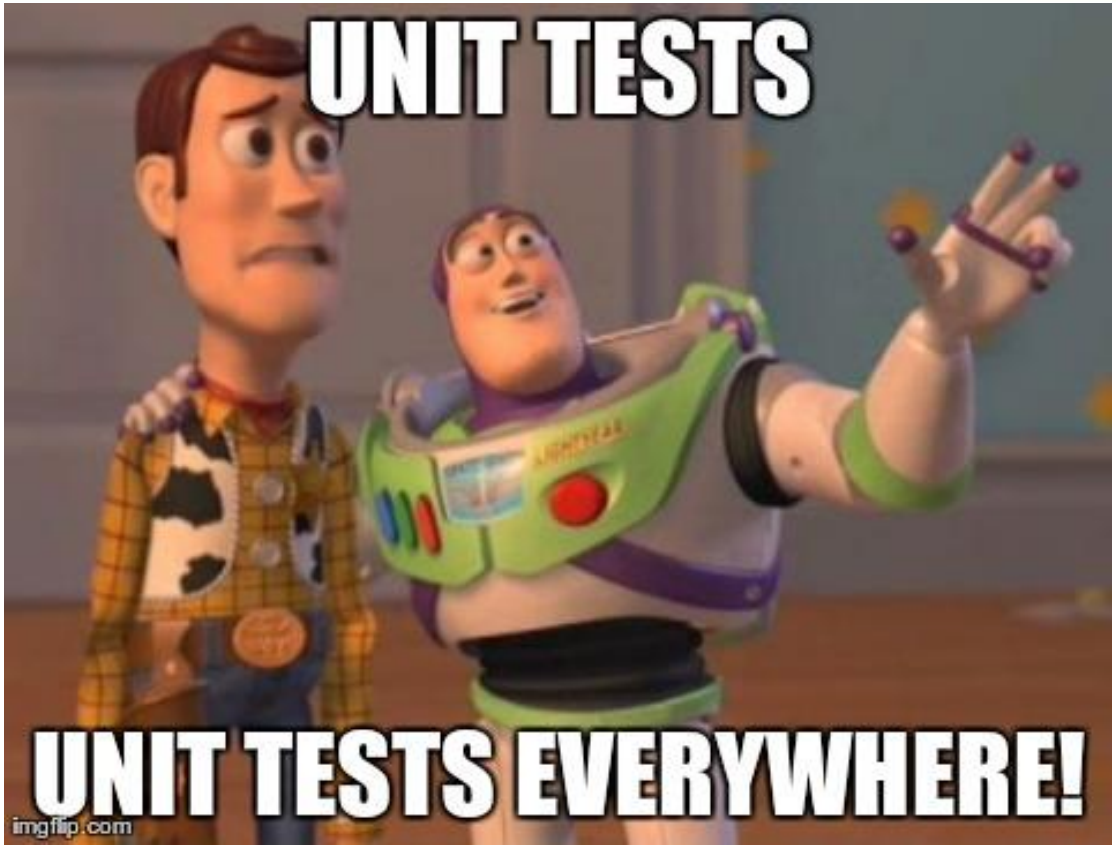


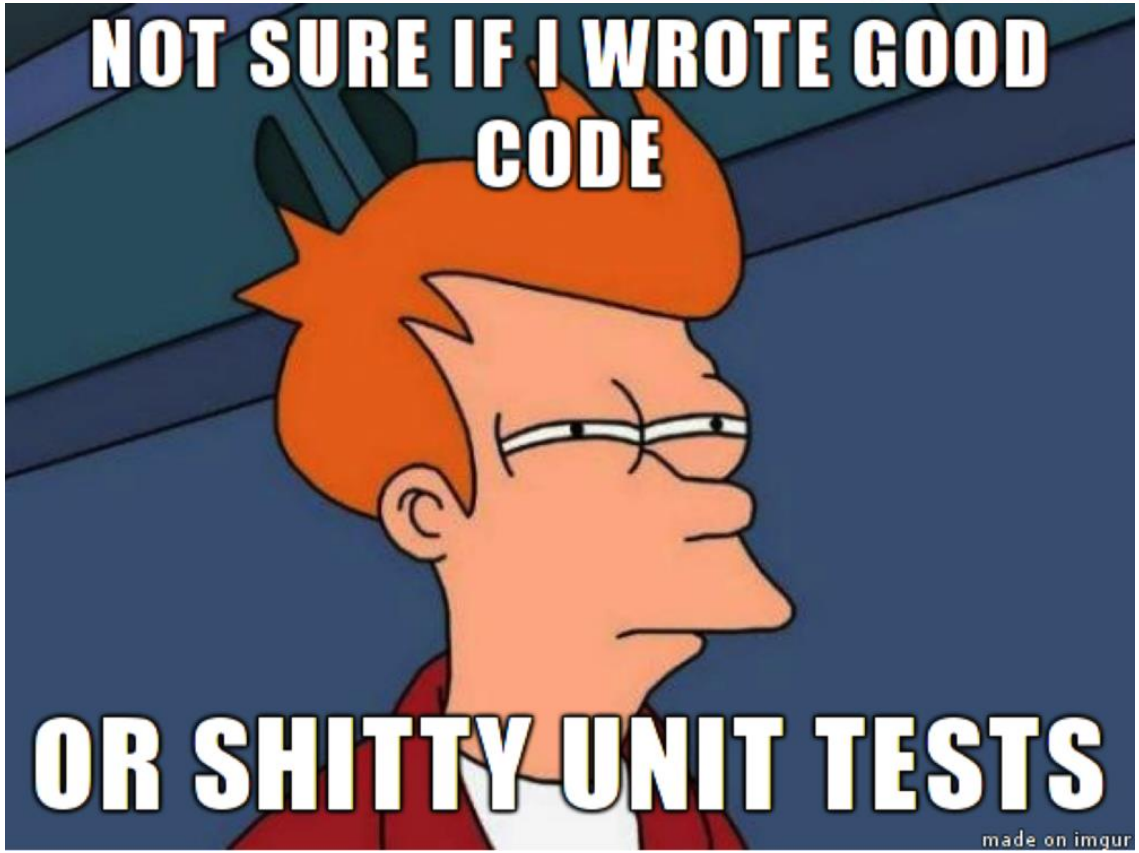

https://gluonhq.com/use-github-actions-to-automate-your-gluon-build-and-release-cycle/

# Test: Full Test Suites

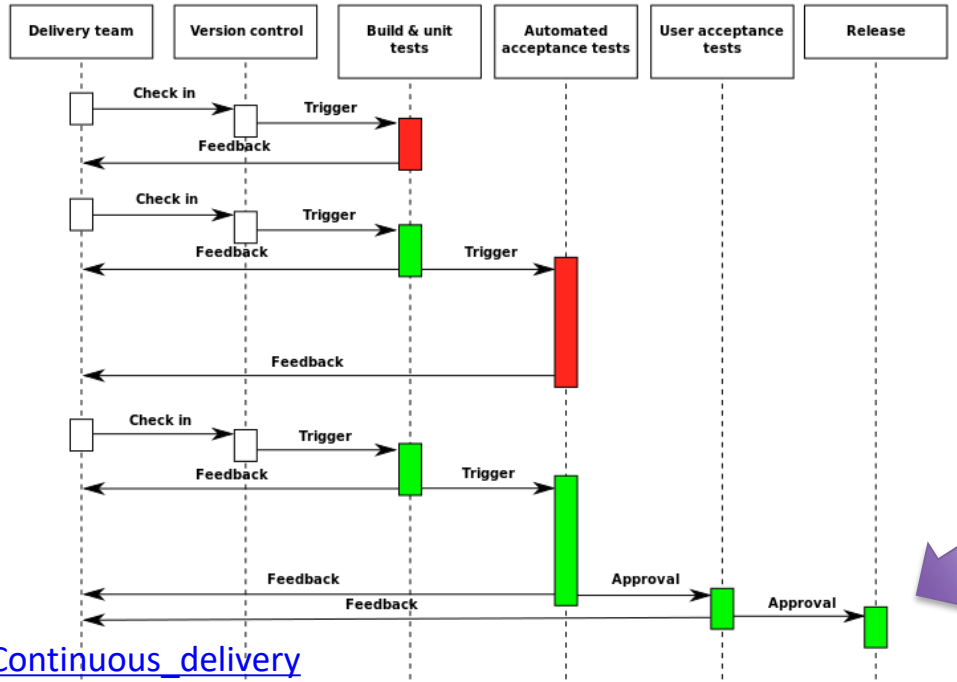



WRITE
ALL THE UNIT TESTS!
memegenerator.net


UNIT TESTS
UNIT TESTS EVERYWHERE!
imgflip.com


NOT SURE IF I WROTE GOOD CODE
OR SHITTY UNIT TESTS
made on imgur

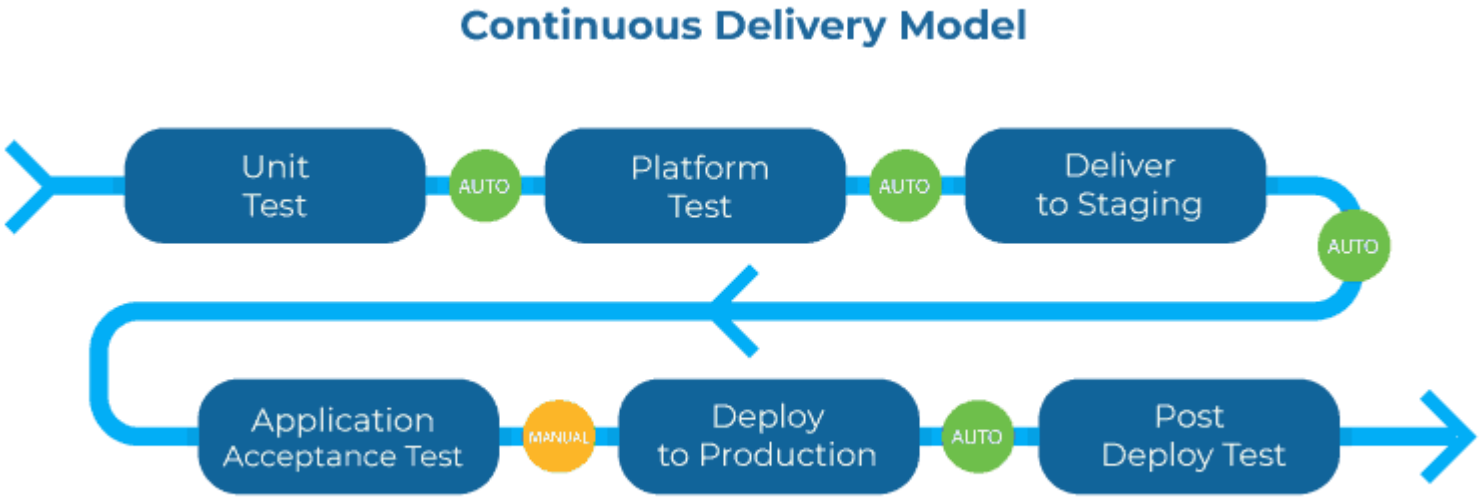
# Release: Only if Tests Pass




That's this part here

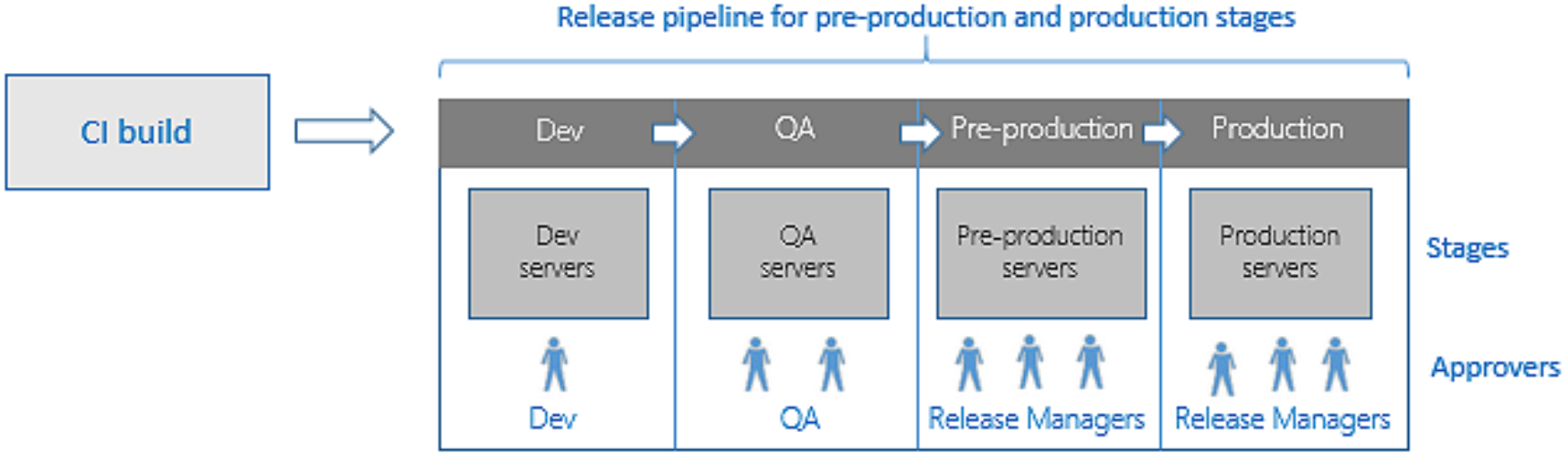
https://en.wikipedia.org/wiki/Continuous_delivery

# Continuous Delivery




https://www.plutora.com/blog/continuous-delivery-model

# Deploy: Environments

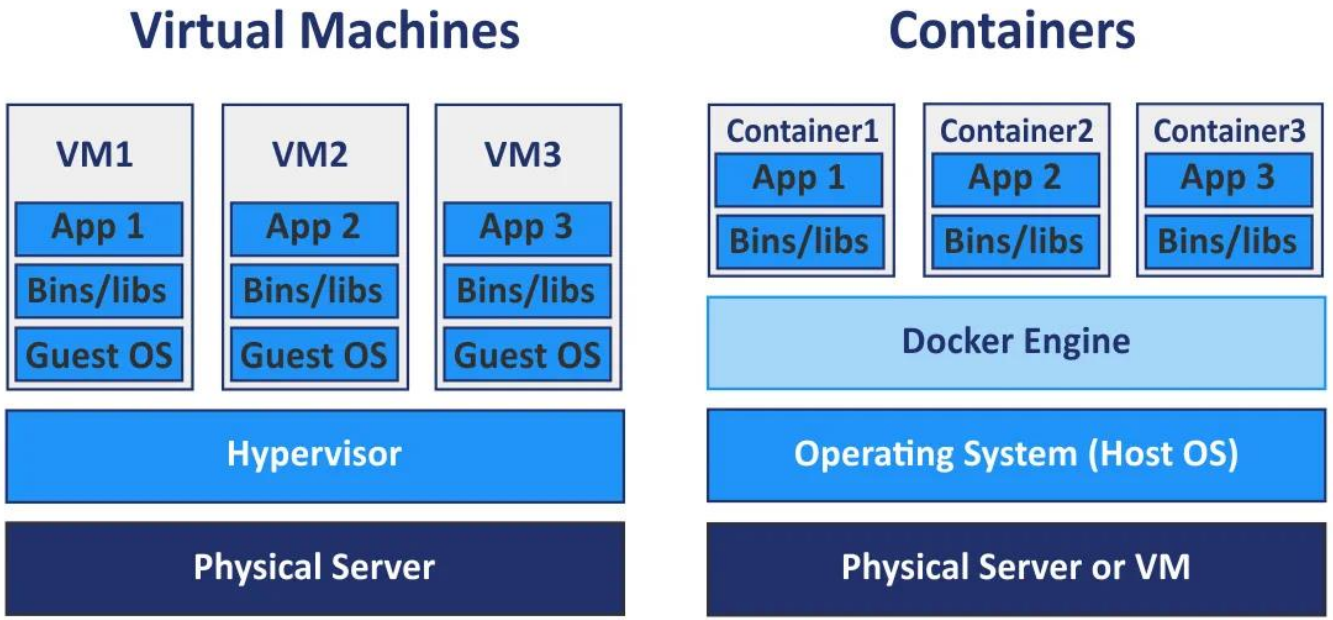



https://docs.microsoft.com/en-us/azure/devops/pipelines/release/?view=azure-devops

# **Operate**: Infra as Code

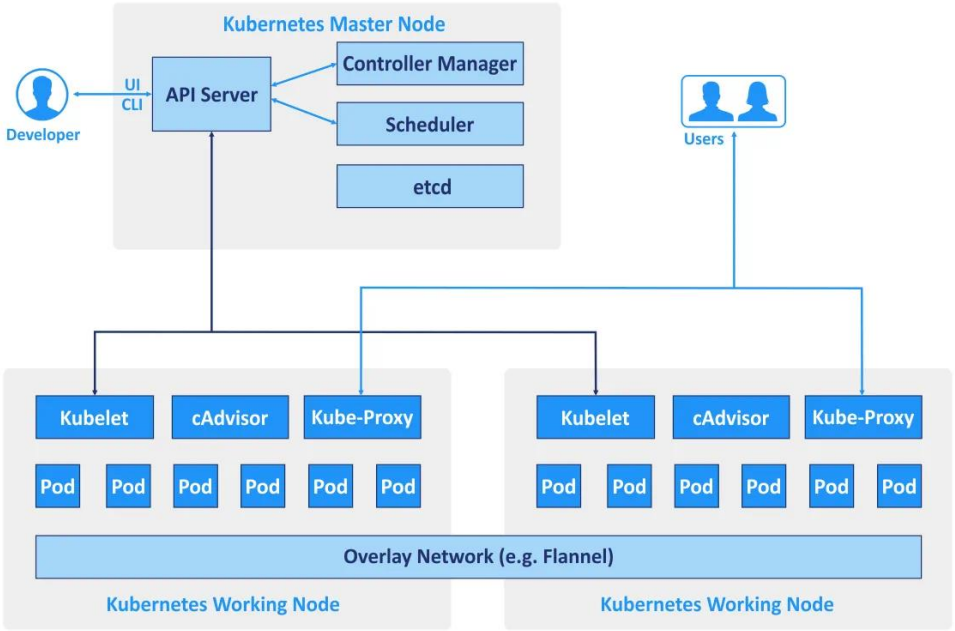
https://dzone.com/articles/5-principles-of-infrastructure-as-code-iac

# Docker



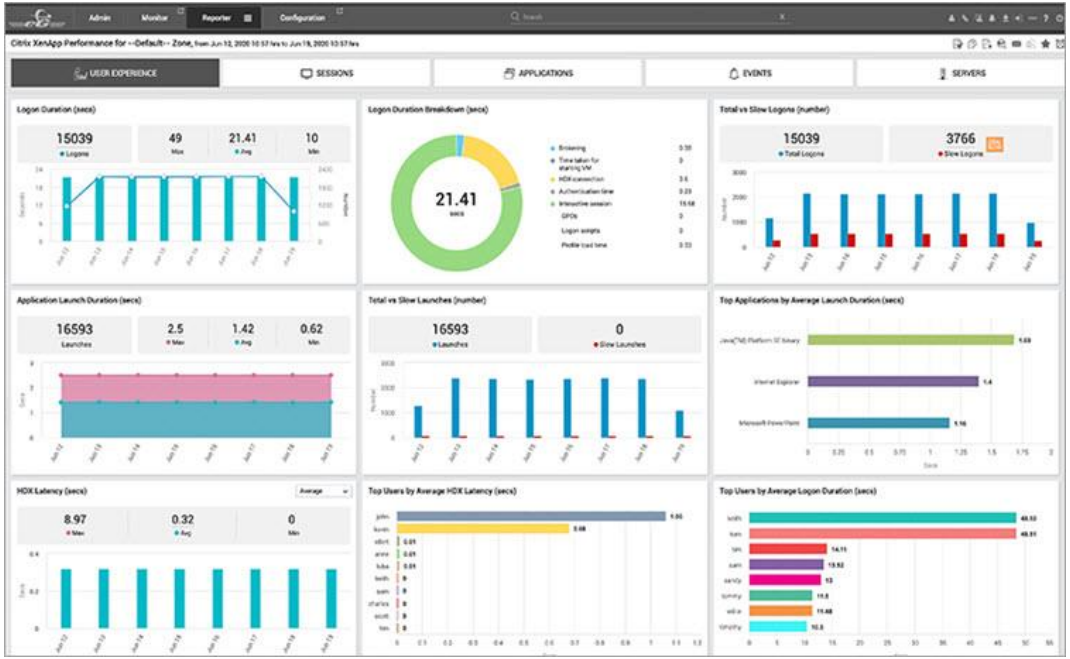

https://www.nakivo.com/blog/docker-vs-kubernetes/

# Kubernetes



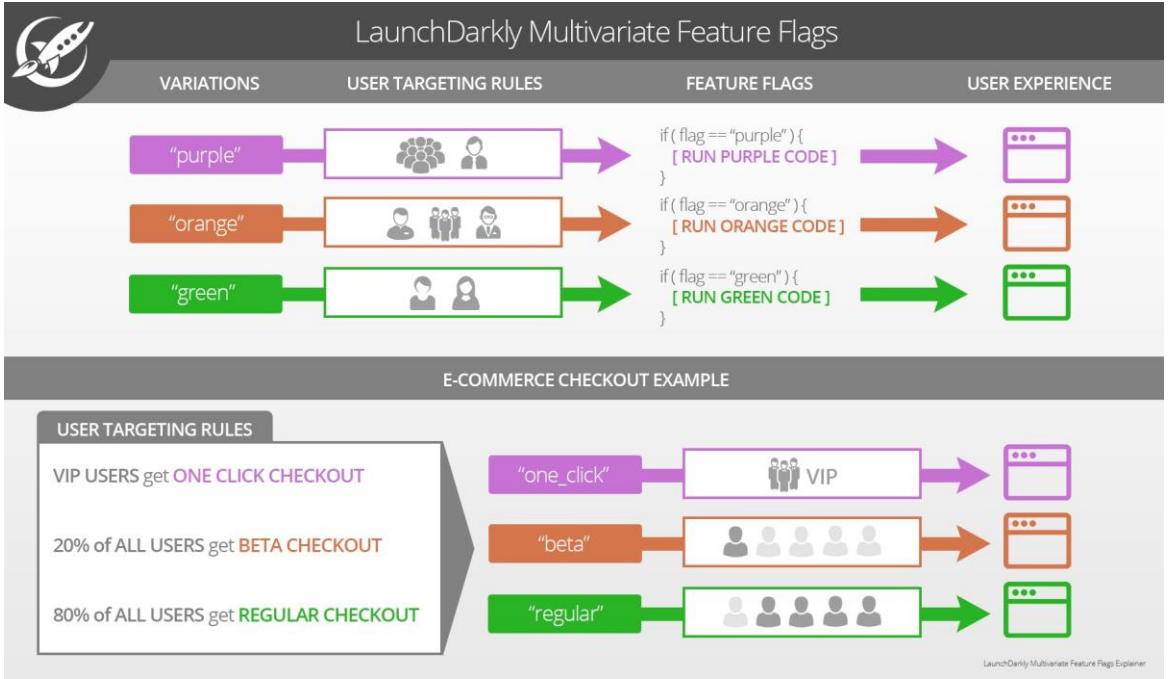

https://www.nakivo.com/blog/docker-vs-kubernetes/

# Monitor: Is it Working?



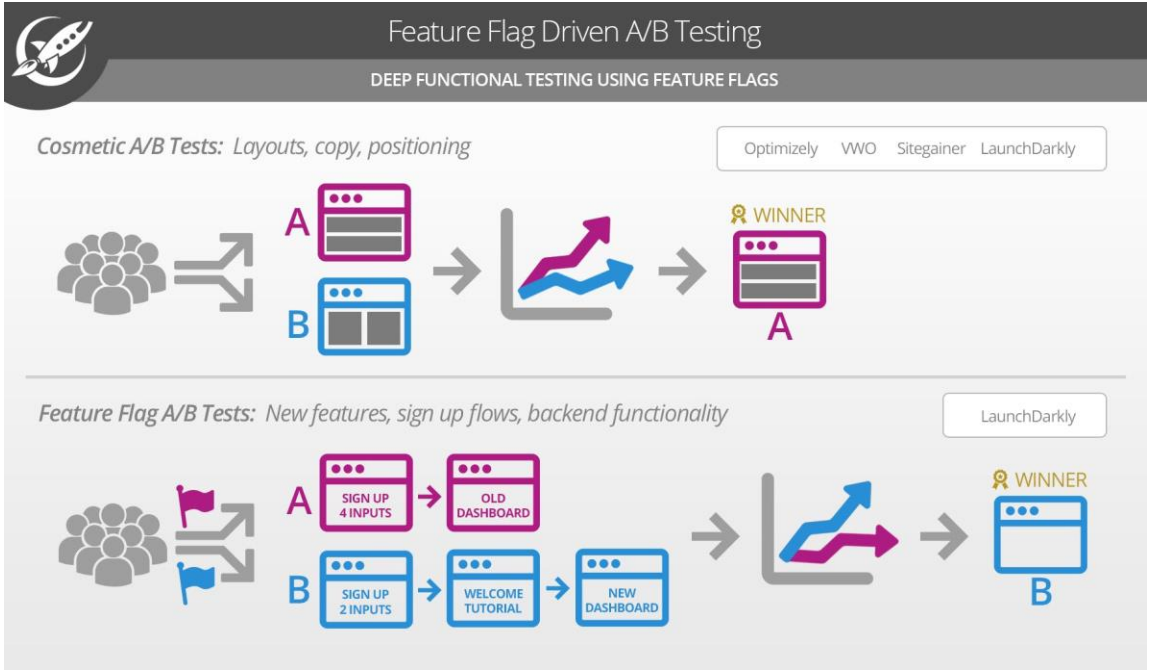

https://www.softwaretestinghelp.com/system-monitoring-software/

# Feature Flags




https://launchdarkly.com/blog/feature-flag-driven-development/

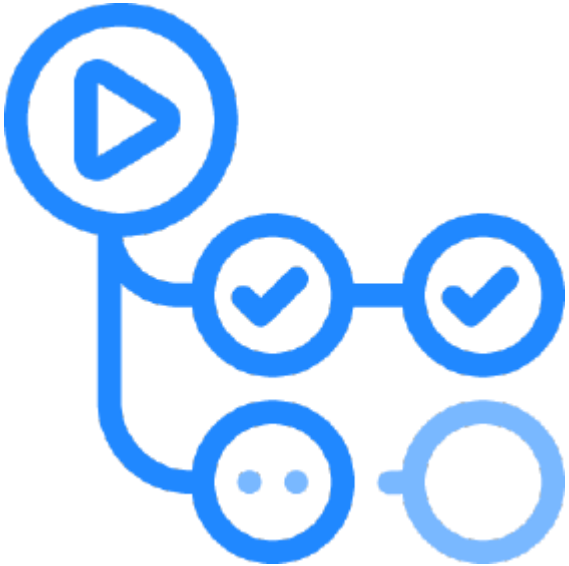
# Feature Flags




https://launchdarkly.com/blog/feature-flag-driven-development/

# Demo Time

## GitHub Actions



## GitLab Runner

# Demo Time

## GitHub Actions

- YML Configuration
- **JavaScript &** Docker
- **Marketplace**
- Workflows & Jobs
- Triggers
- GitHub API Access

## GitLab Runner

- YML Configuration
- Docker
- **Shell Scripts**
- Workflows & Jobs
- Triggers
- GitLab API Access

# Follow Along!

https://russfeld.me/talks