

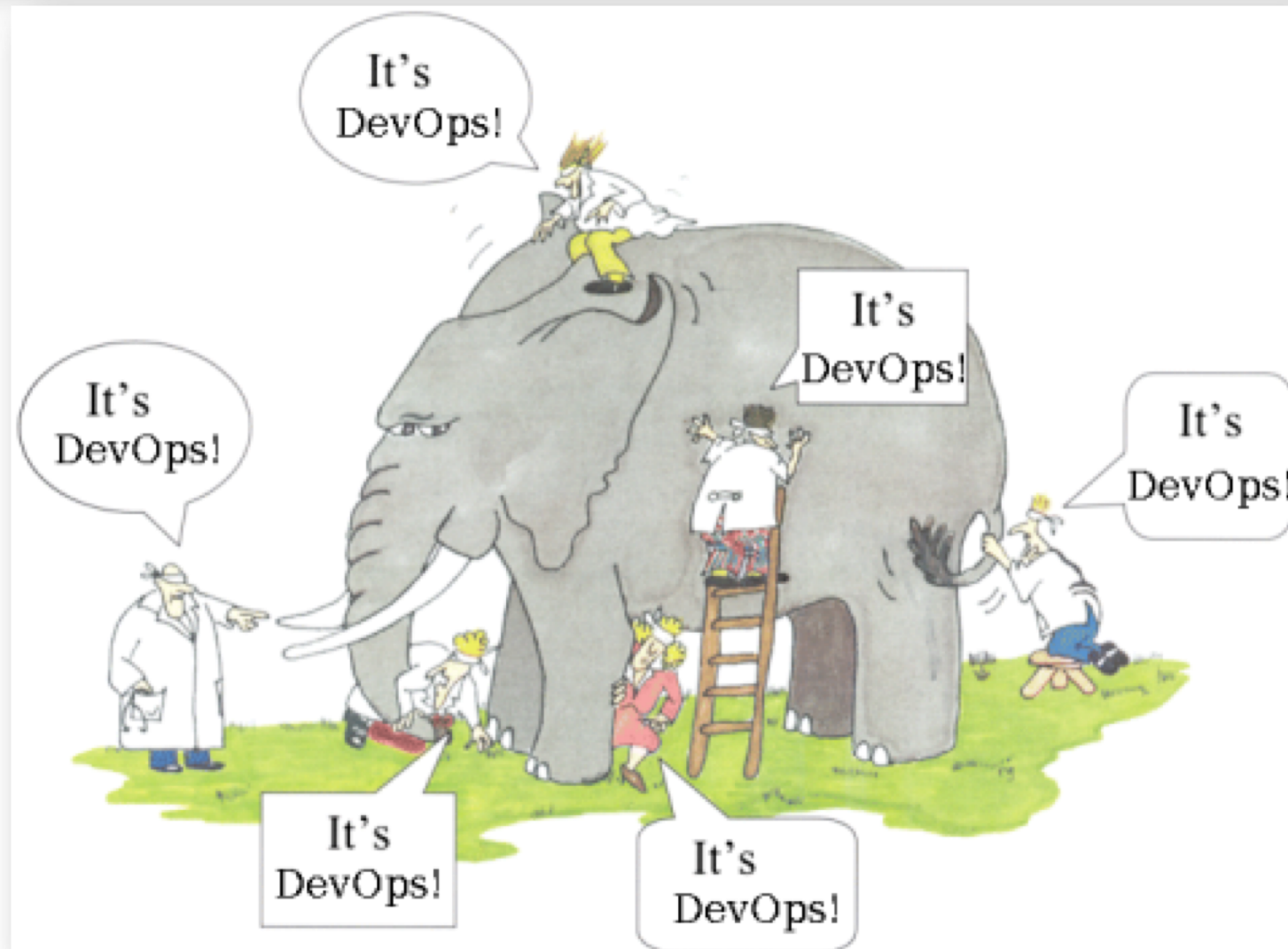


DevOps Much?

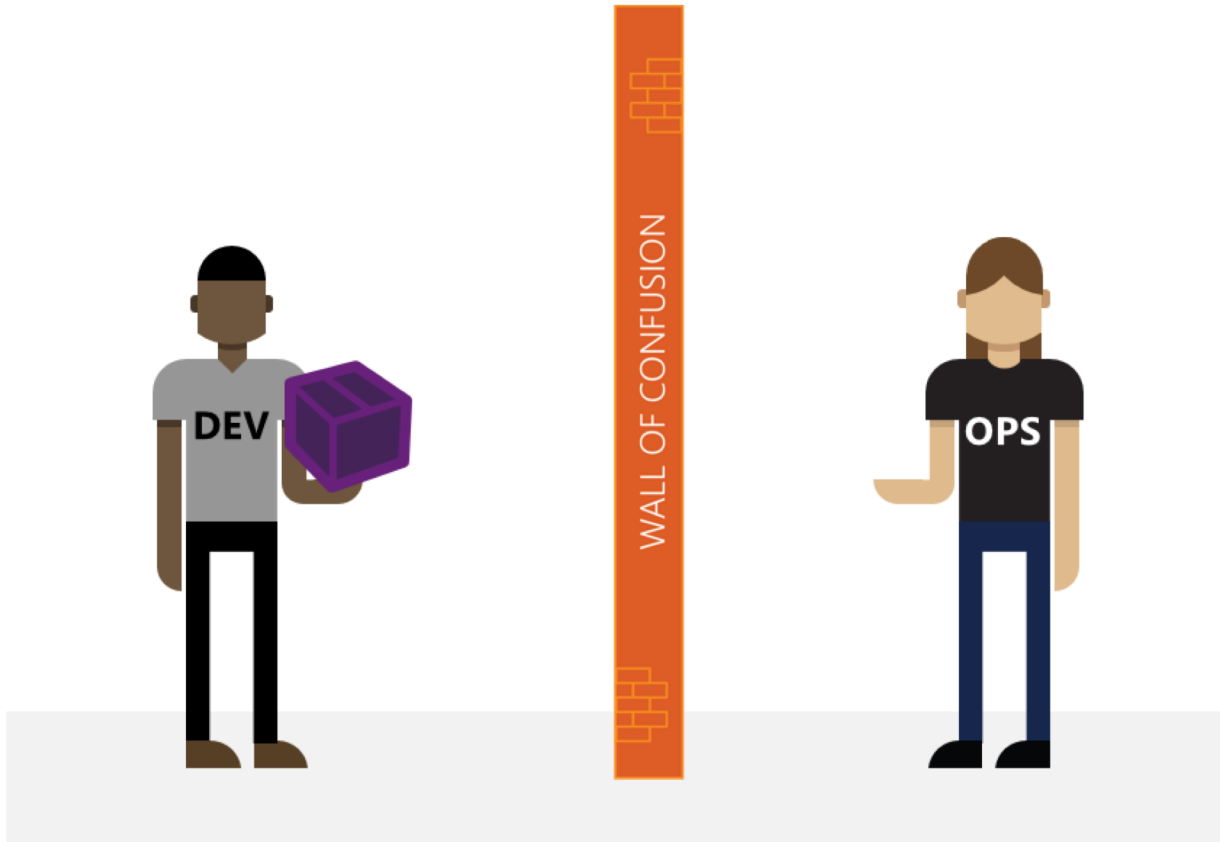
Presented By: Chris Lawson

Co-Founder | CTO

What Exactly is DevOps?

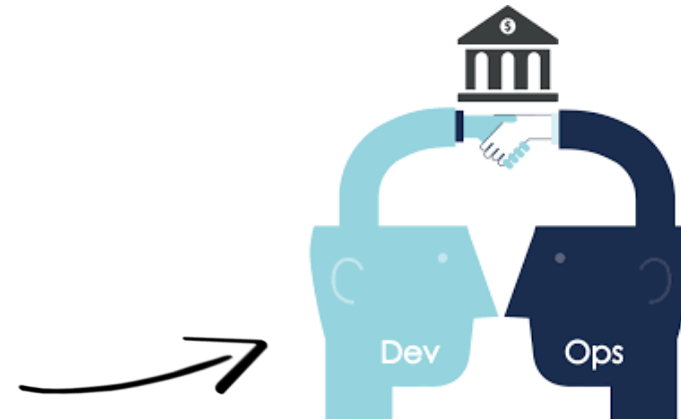


What is DevOps Really?



Source: MSDN Blogs - Microsoft

It's All About Sharing and Collaboration



DevOps is...

CAMS

- Culture
- Automation
- Measurement
- Sharing

- Reusable deployment patterns and testing patterns for building applications or services.
- Configurations managed by configuration management tools.
- Monitoring and alerting configurable by the team operating the service.
- Teams contributing improvements to tooling provided by other teams.

Source: Puppet + Splunk - Foundational DevOps Practices

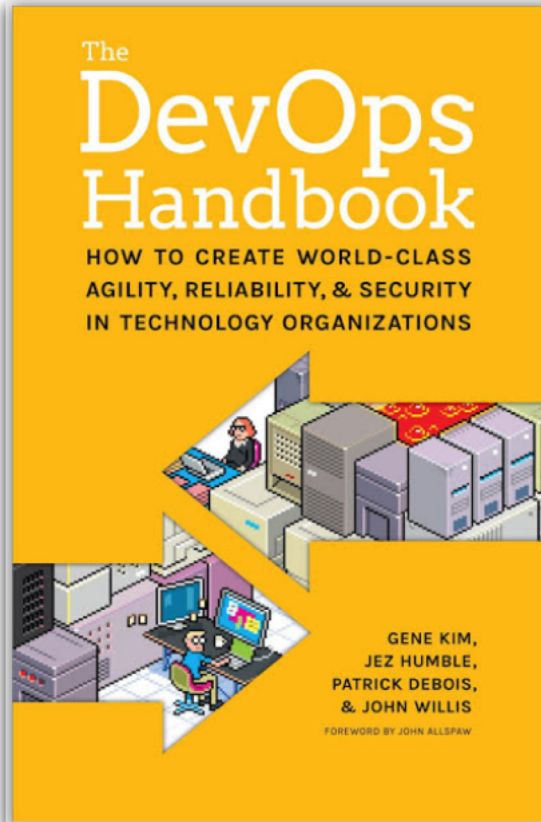
DevOps is **NOT** Ineffective Quality Controls

- Requiring another team to complete tedious, error-prone, and manual tasks that could be easily automated and run as needed by the team who needs the work performed
- Requiring approvals from busy people who are distant from the work, forcing them to make decisions without an adequate knowledge for the work or the potential implications, or to merely rubber-stamp their approvals
- Creating large volumes of documentation of questionable detail which become obsolete shortly after they are written
- Pushing large batches of work to teams and special committees for approval and processing and then waiting for responses



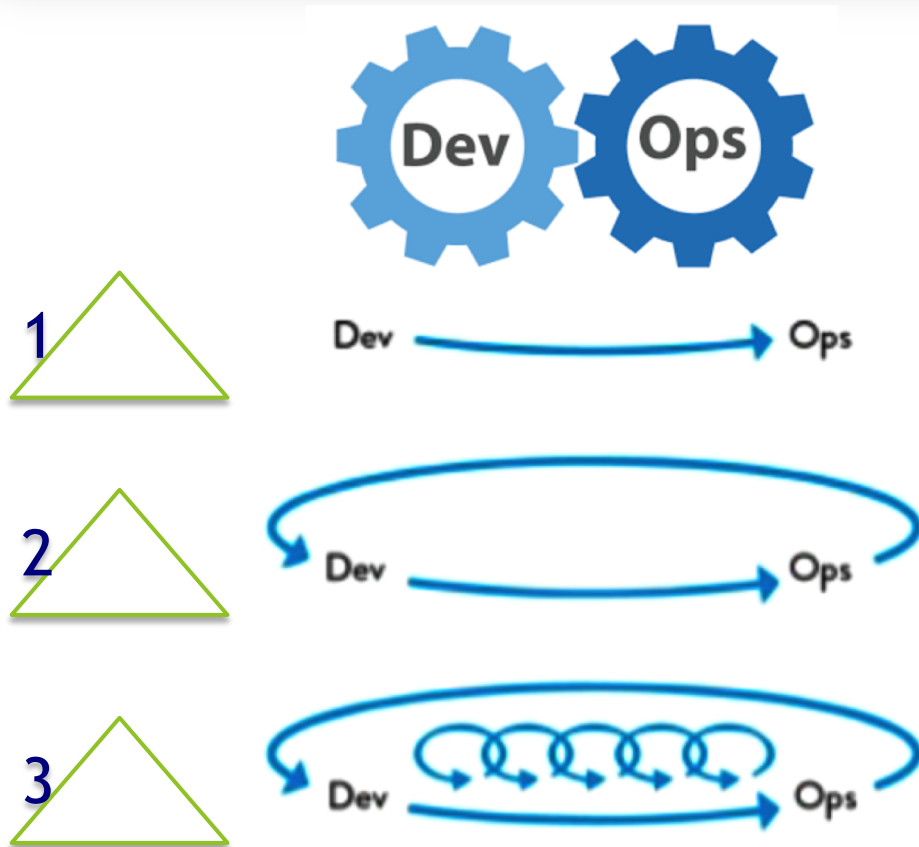
Source: The DevOps Handbook

How to DevOps



“Imagine a world where product owners, Development, QA, IT Operations, and Infosec work together, not only to help each other, but also to ensure that the overall organization succeeds.”

The Three Ways

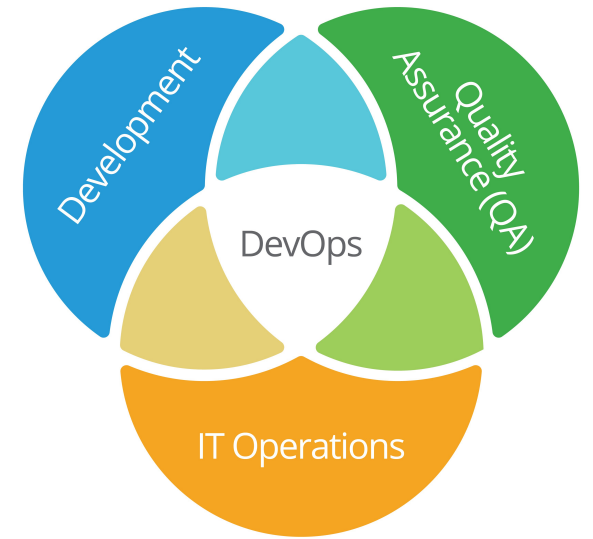


- **The First Way** focuses on the performance of the entire system and not the performance of a specific team or department.
- **The Second Way** ensures that there is a feedback between Development and Operations.
- **The Third Way** ensures that you can sustain the change by creating a culture of experimentation, and build expertise through repetition.

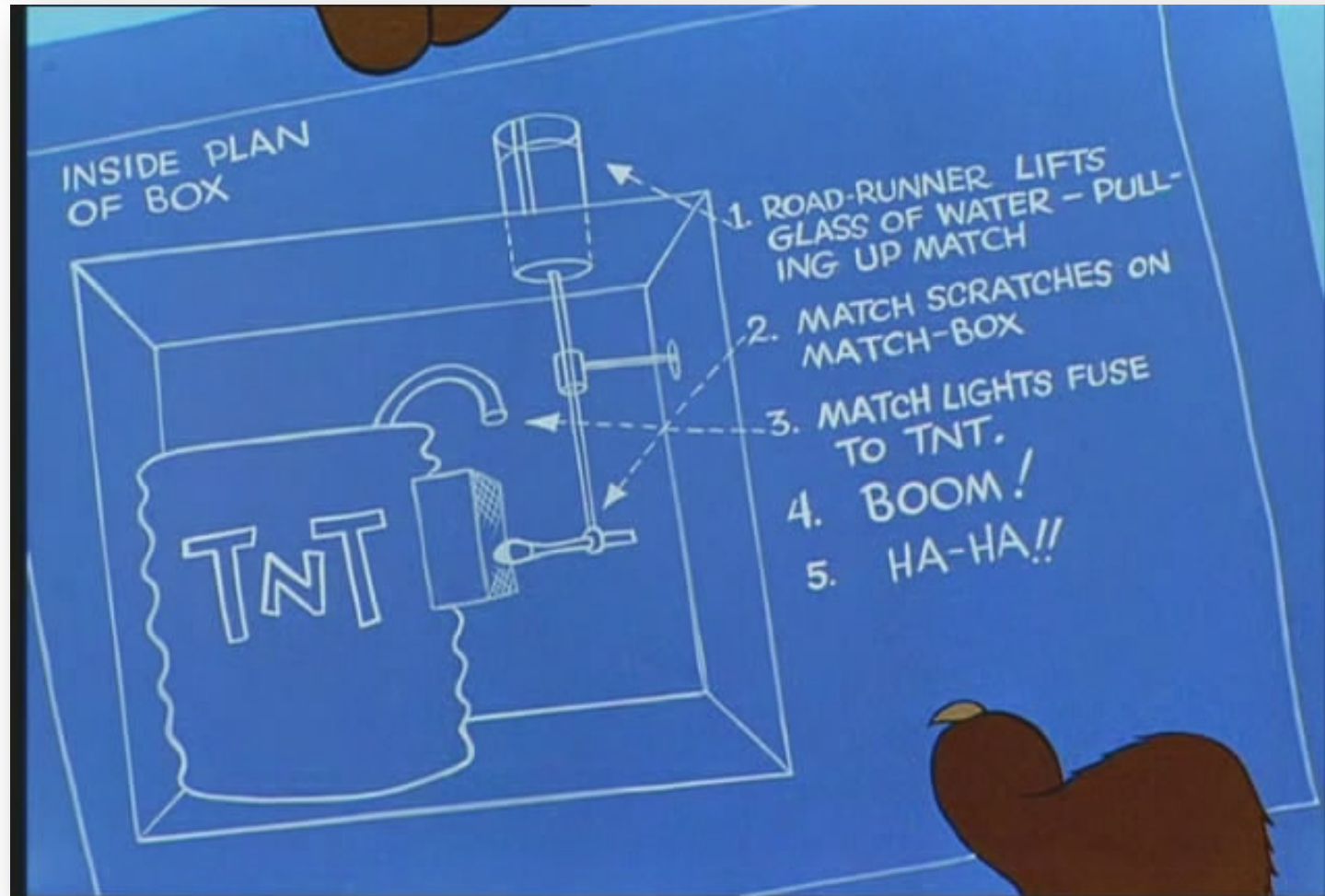
Source: Gene Kim - The Phoenix Project

Get Clear on Applying DevOps Principles

- Increased deployment frequency
- Reduced lead time for changes
- Faster recovery when problems occur
- More robust and better integrated security
- A “shift left” in quality - quality of code, testing, architecture, “deployability” and culture
- Fast feedback loops and effective communication between teams and departments



Where to Start



Source: ACME



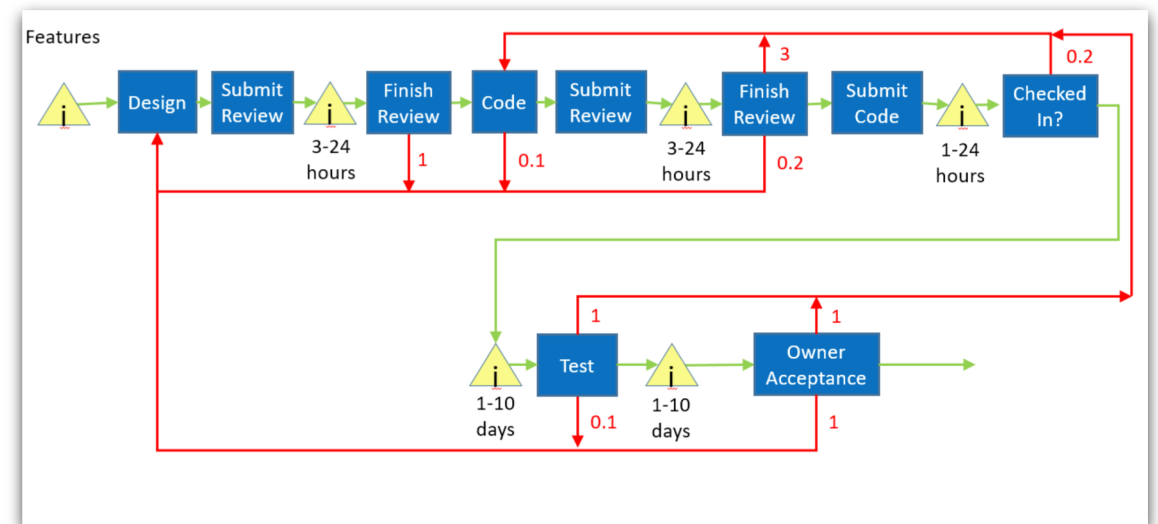
Where to Start - Continuous Integration



- Am I deploying the code the same way every time?
- Are my development environments production-like?
- Are we running a test automation suite for every CI build?
- What manual steps can I automate?
- What questions are the developers asking frequently? Can I build a dashboard or something so they will stop asking me (i.e. self service)?

Create A Value Stream Map

- Identify a slice of the product
- Decide the problem you are solving for
- Bound the process
- Map the bounded process
- Collect process data
- Create a timeline
- Assess your current map
- Design the future map
- Implement the future map



Source: atlassian.com/continuous-delivery/principles/value-stream-mapping

DevOps Level Up

Level 1 - Overview

People (“Who”)

Process (“What”, “How”)

Business Value (“Why”)

Level 2 - Definition

Infrastructure as Code

Continuous Integration

Continuous Testing

Level 3 - Tools

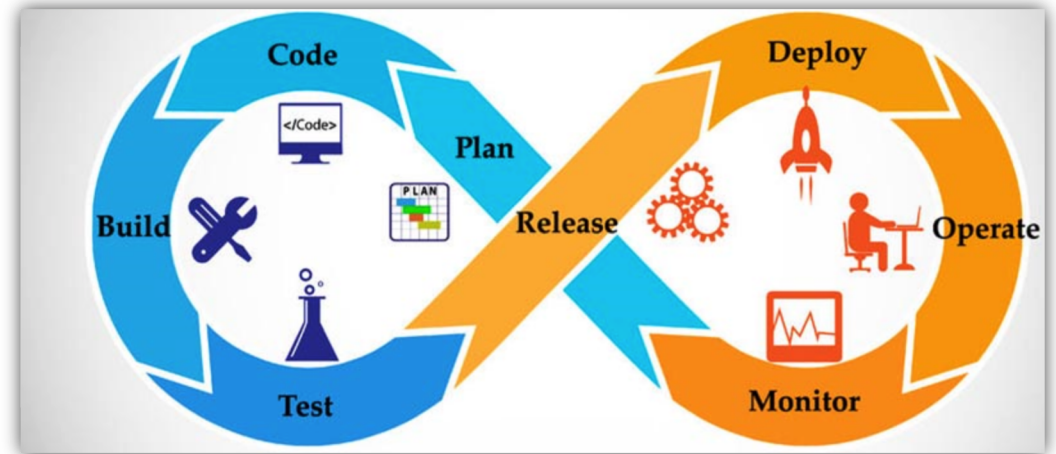
Environment Deployment
Templates

Configuration Management
to Control and Manage
Infrastructure

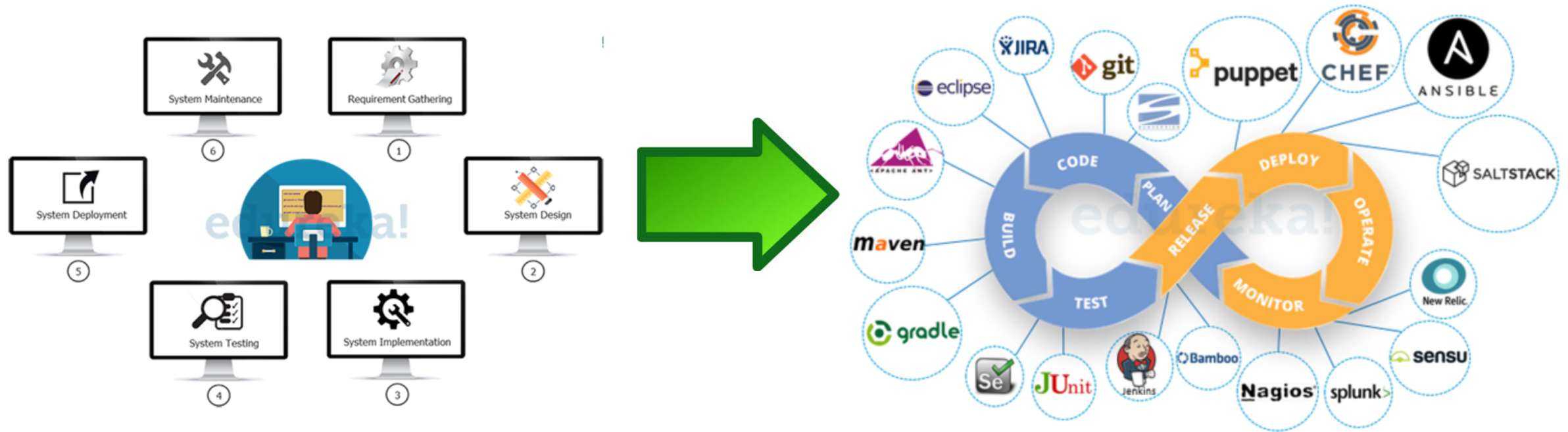
Source Code Management,
Build Automation, Delivery
Pipeline

DevOps Practices

- ❑ Infrastructure as Code (IaC)
- ❑ Continuous Integration
- ❑ Automated Testing
- ❑ Continuous Deployment
- ❑ Release Management
- ❑ App Performance Monitoring
- ❑ Load Testing & Auto-Scale
- ❑ Availability Monitoring
- ❑ Change/Configuration Management
- ❑ Feature Flags
- ❑ Automated Environment De-Provisioning
- ❑ Self Service Environments
- ❑ Automated Recovery (Rollback & Roll-Forward)

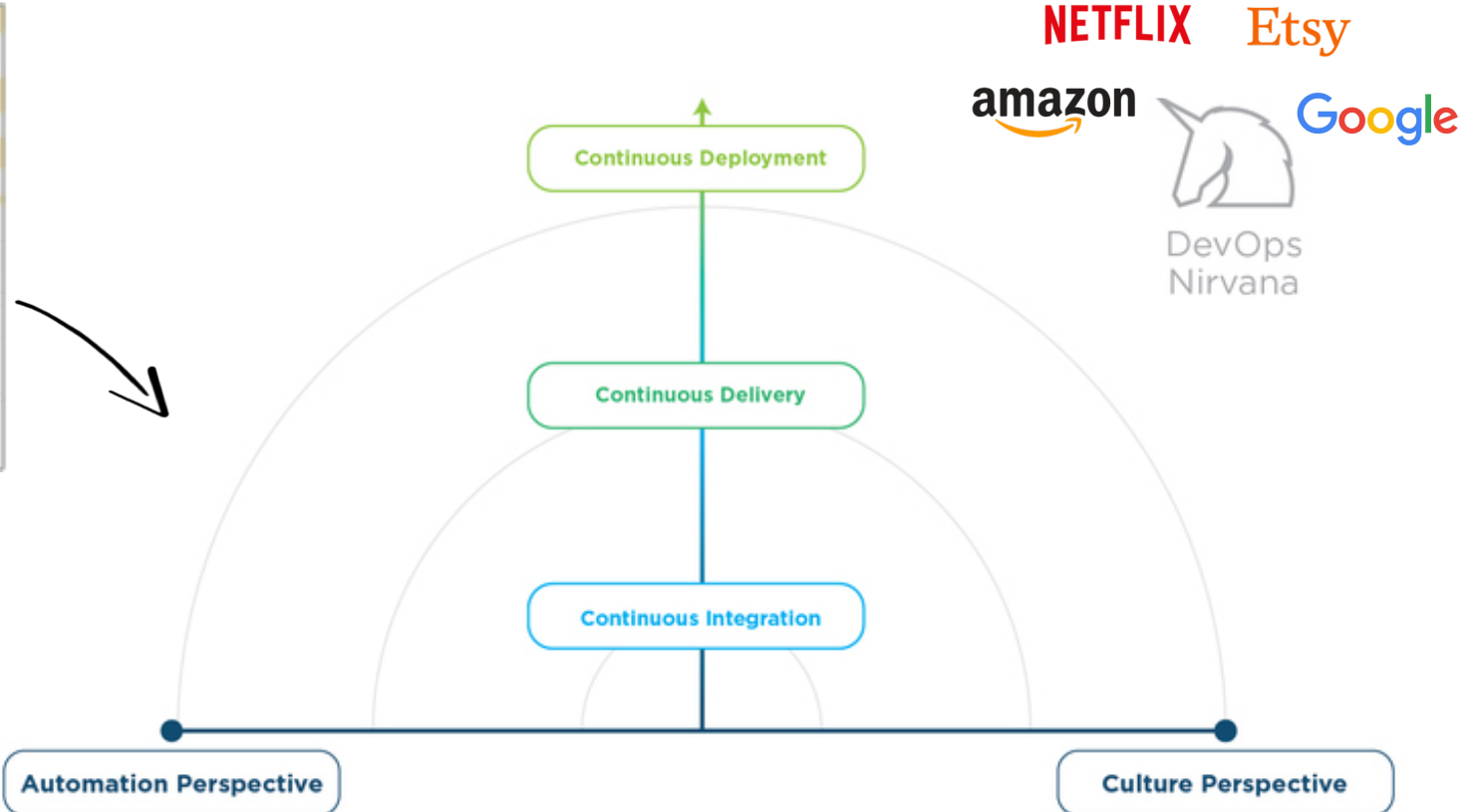
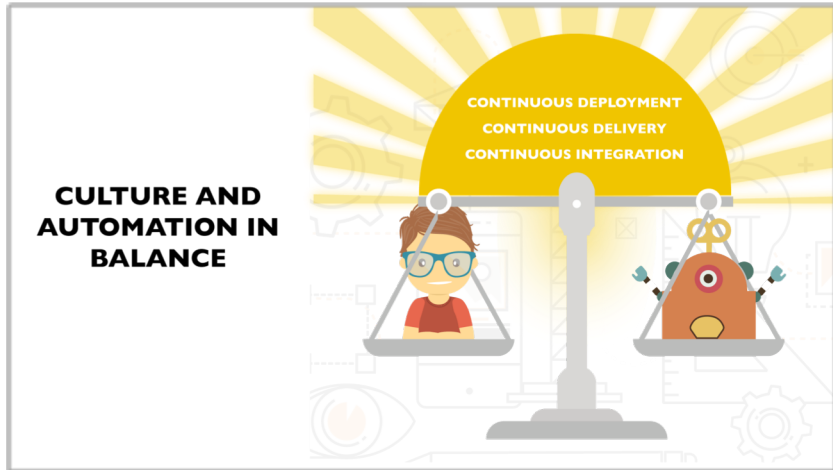


DevOps Transformation



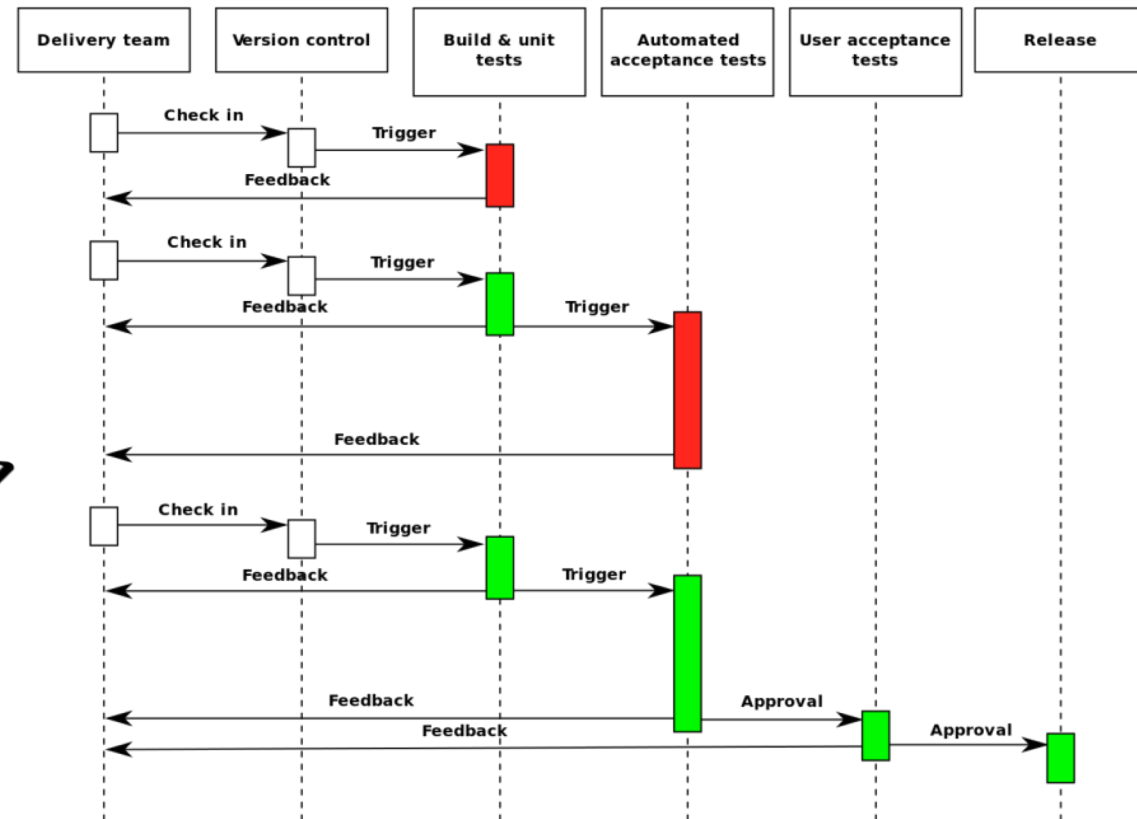
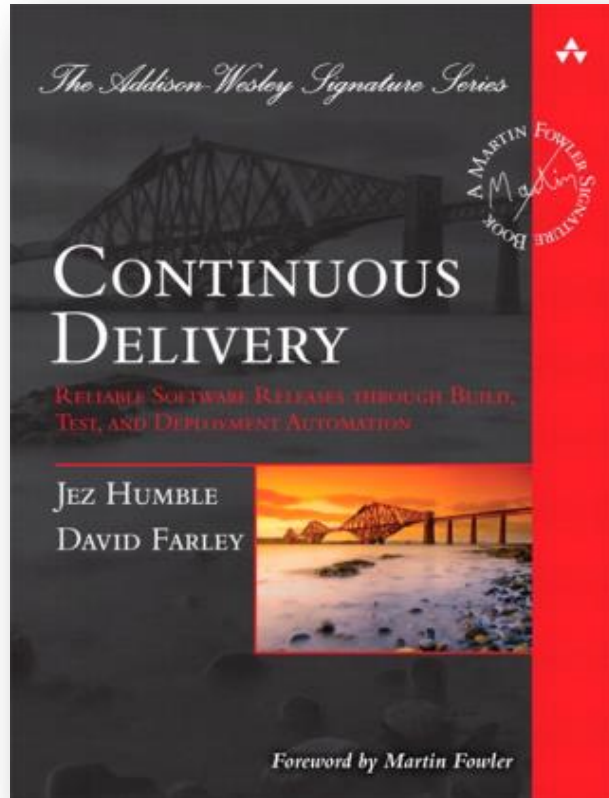
Source: [quora.com/What-are-DevOps-tools](https://www.quora.com/What-are-DevOps-tools)

DevOps Delivery Chain

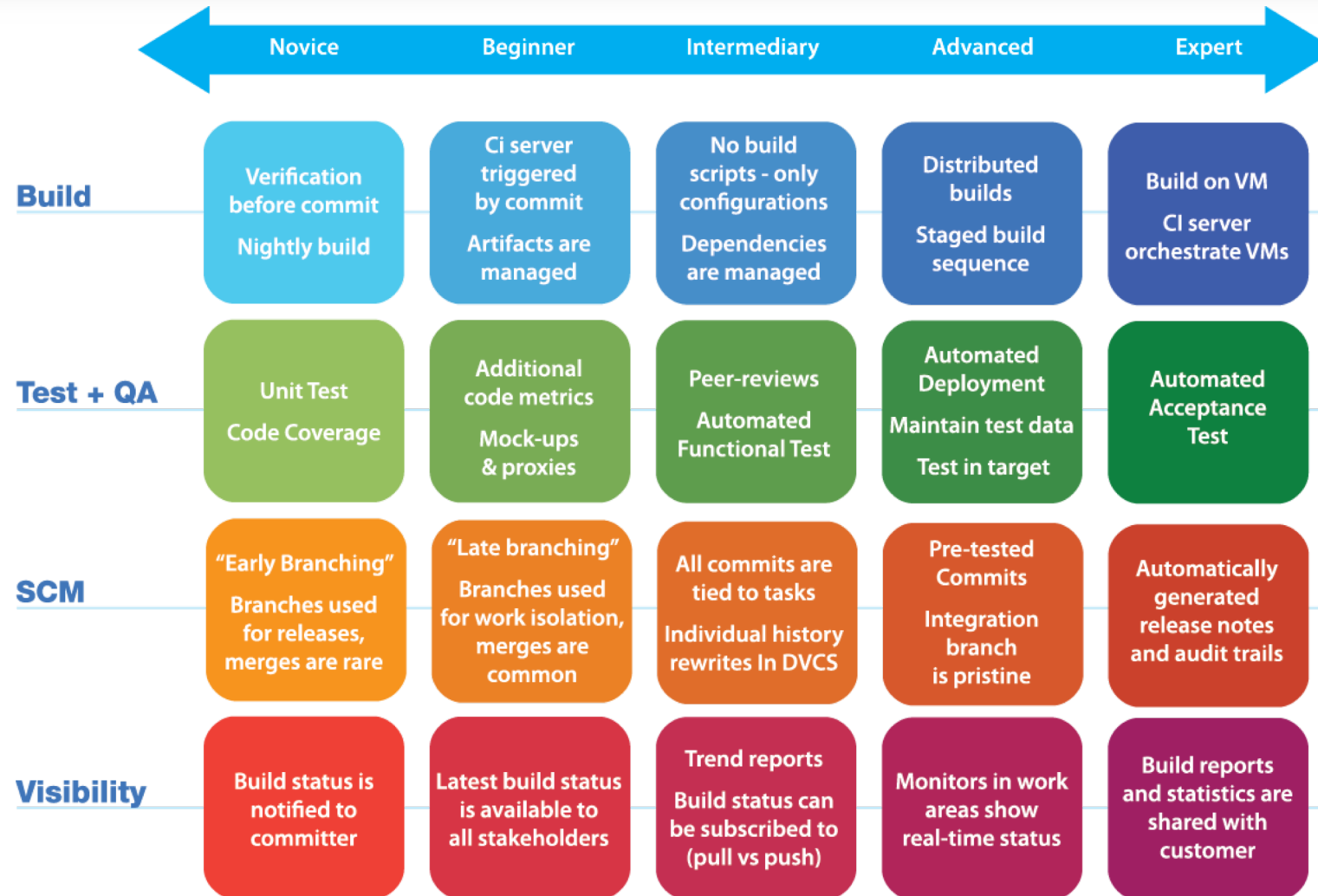


Source: resources.collab.net/devops-101/what-is-devops

Deployment Pipeline Concept

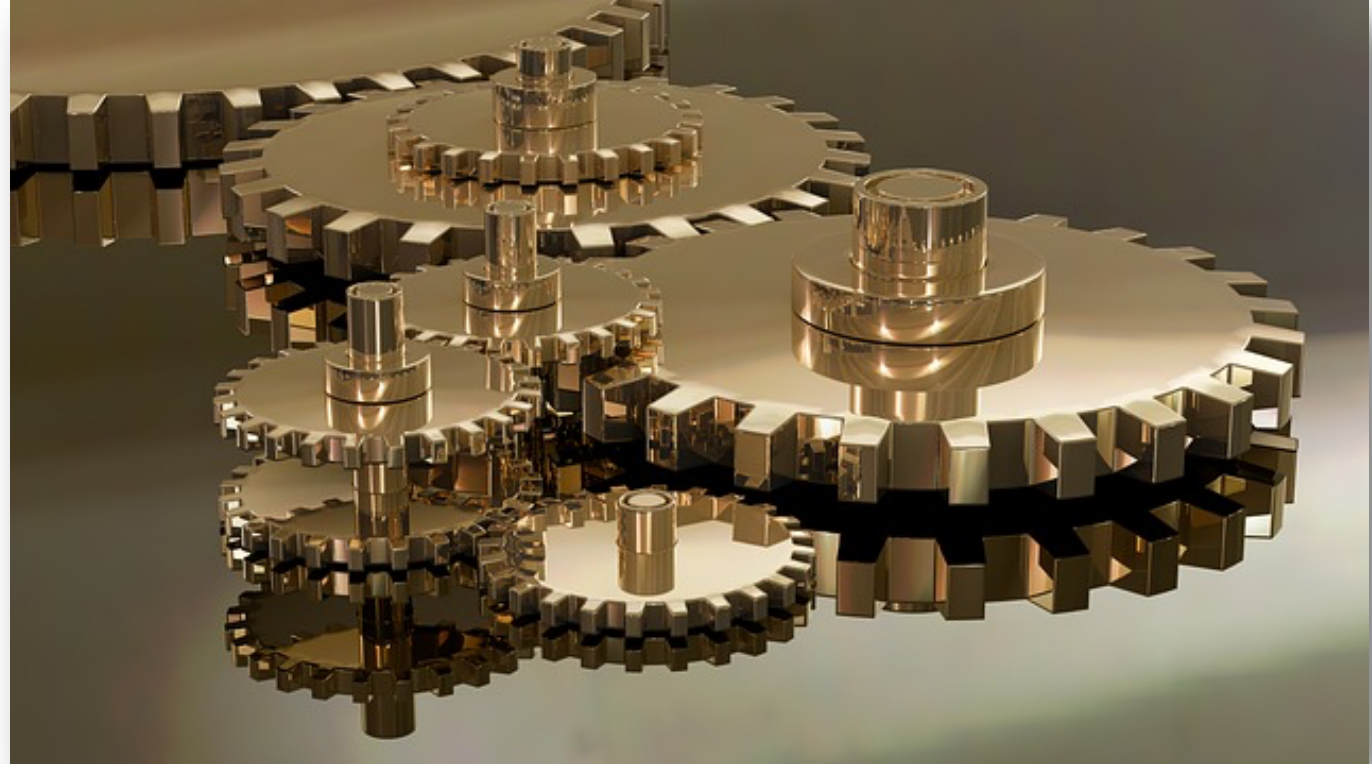


Continuous Delivery Maturity Matrix



DevOps Actually is...

- People
- Processes
- Technologies
- Creating Value by Enabling Teams



Thank You!

