Sujata Bataraa

# Introduction to DevOps

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# What is DevOps?

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# What is DevOps?

*"It's a movement of people who think its time for change in the IT industry – time to stop wasting money, time to start delivering great software and building systems that scale and last"* **– Patrick Debois**

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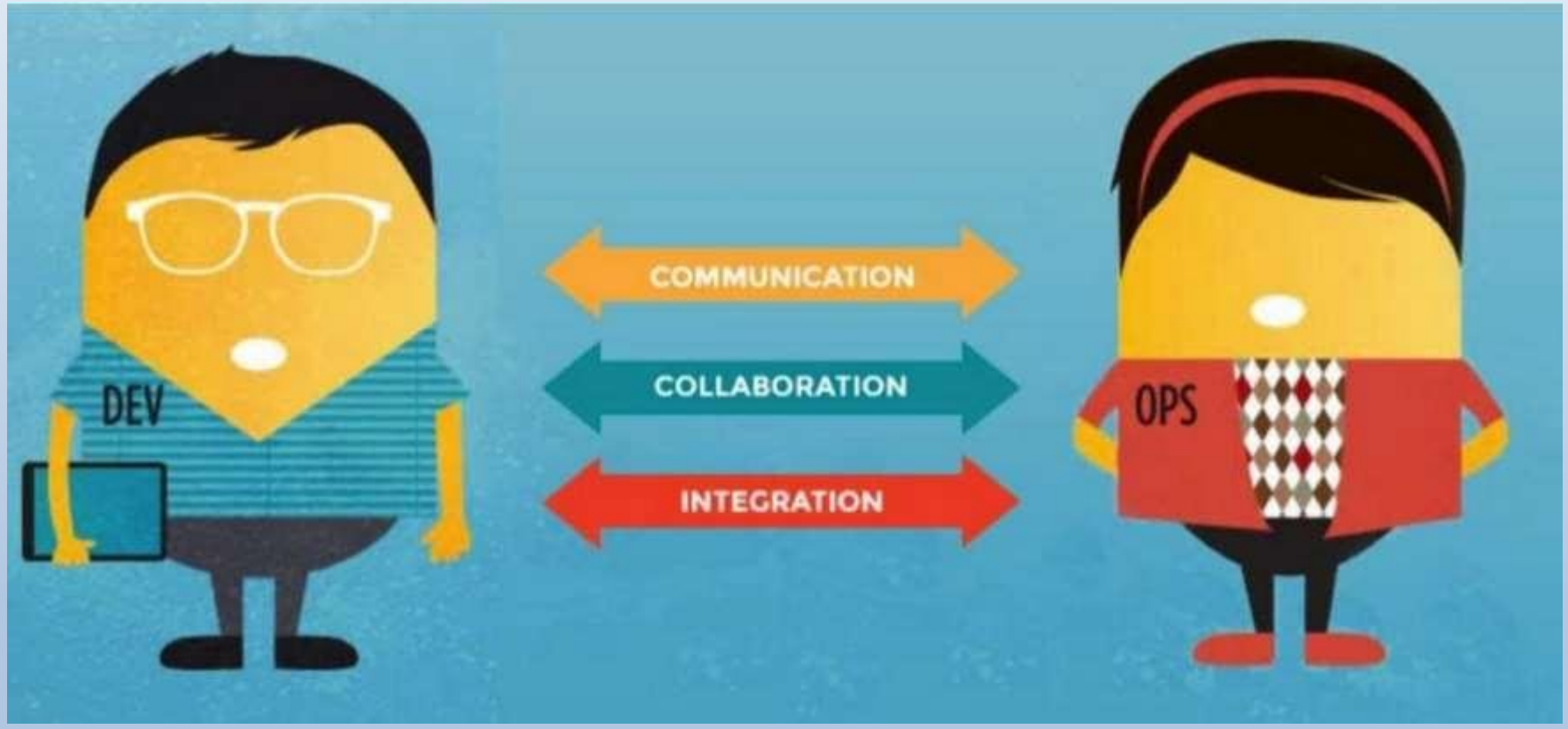
# DevOps Philosophy



# Once Upon a Time

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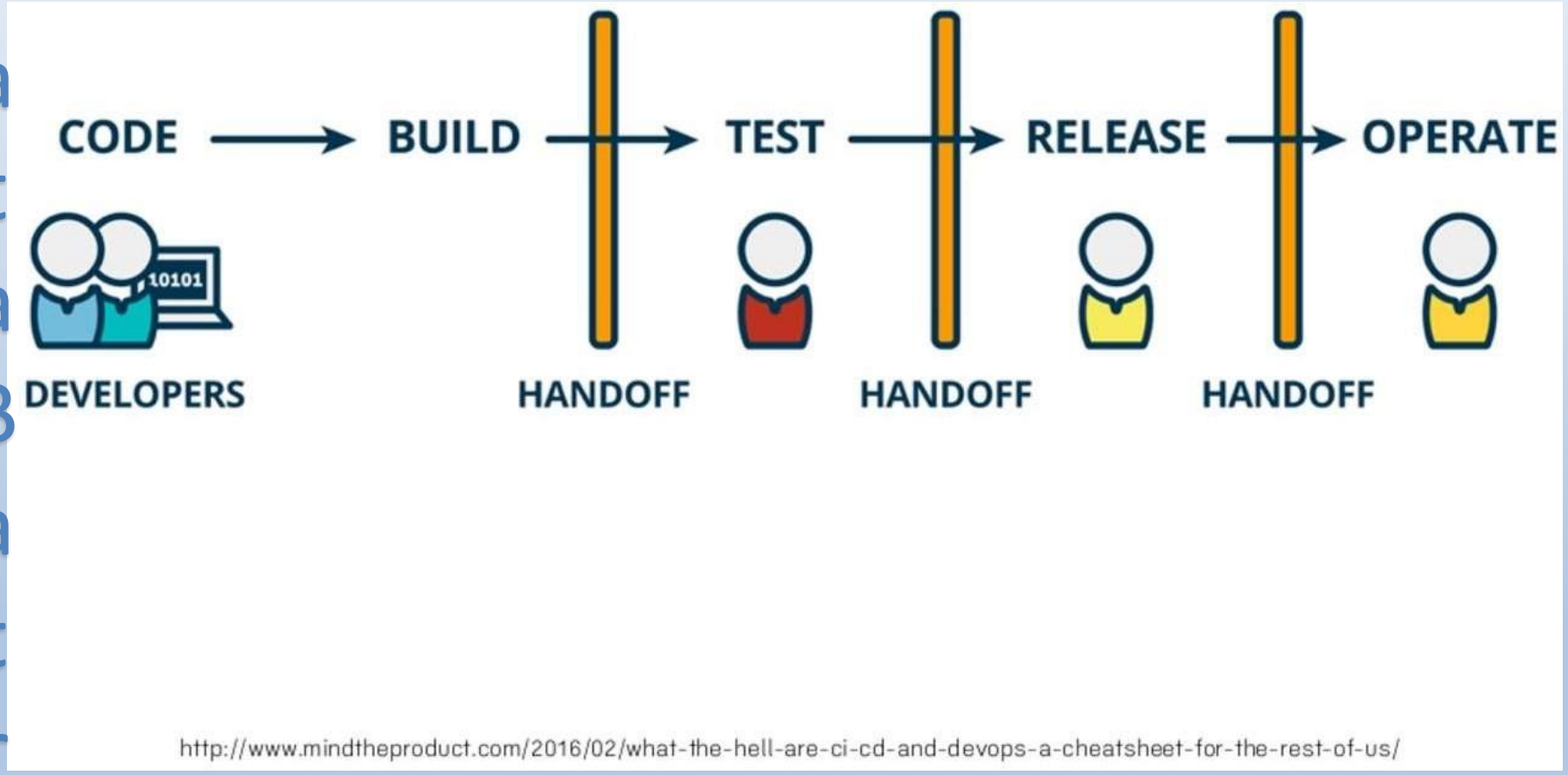

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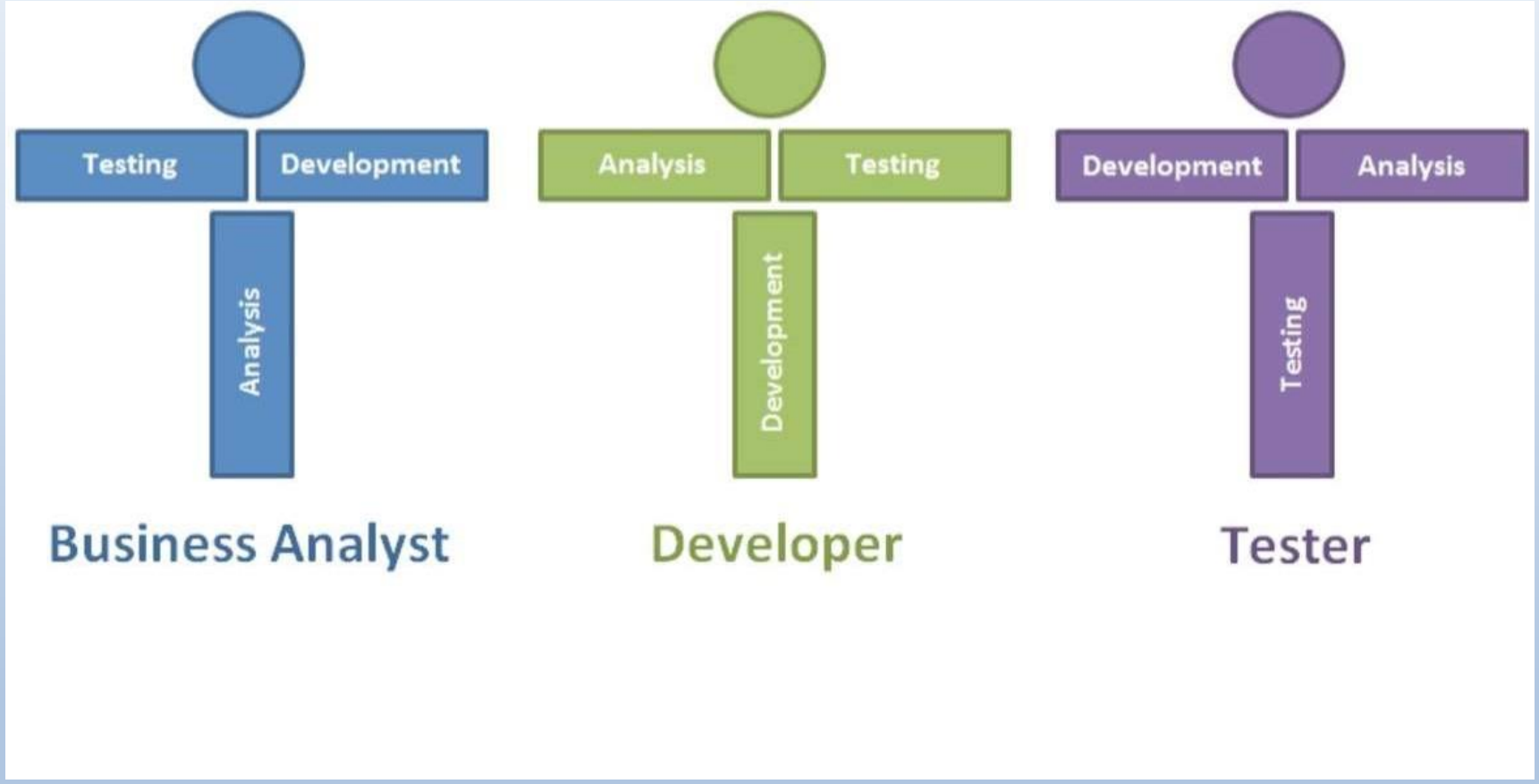

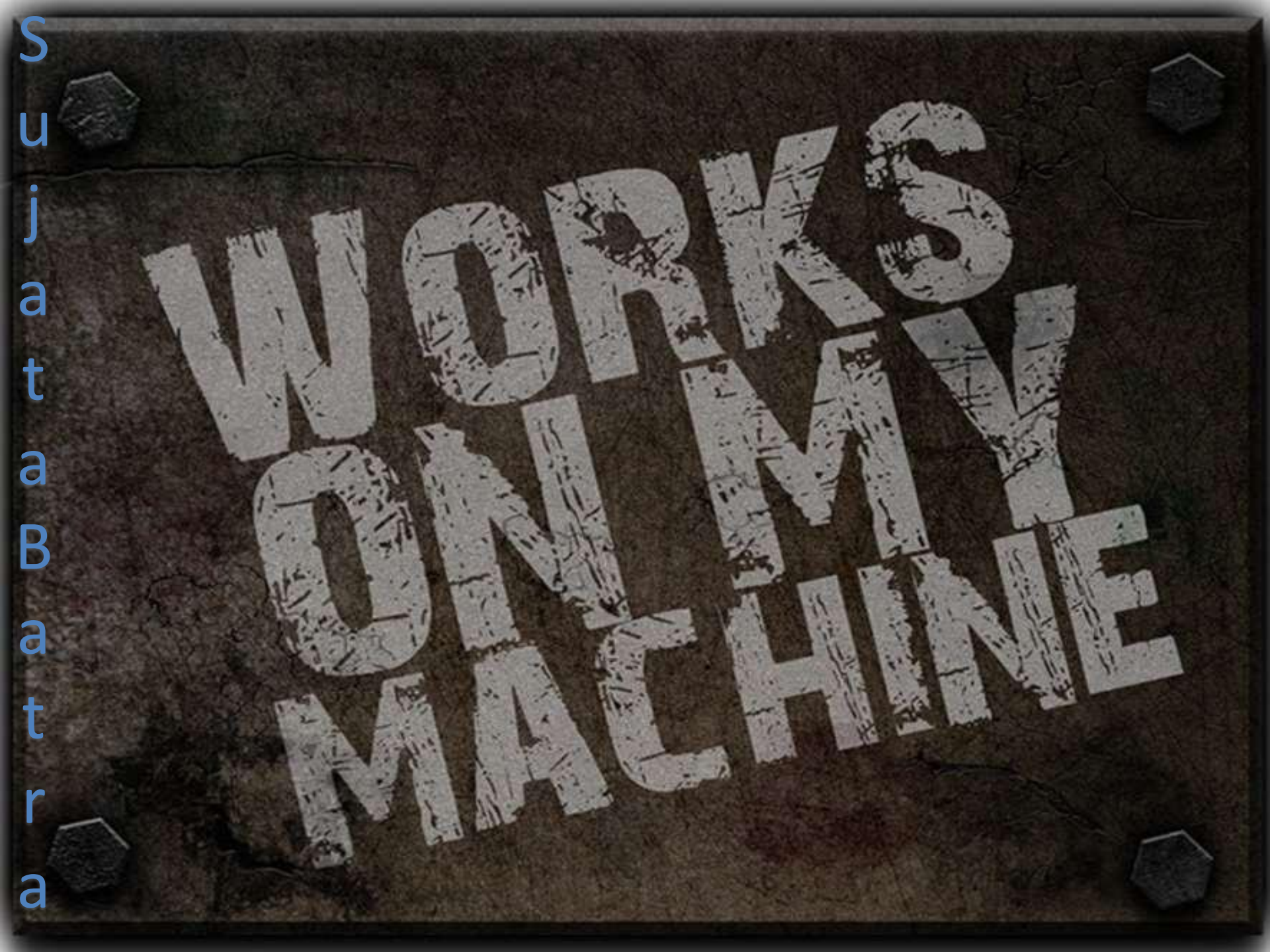


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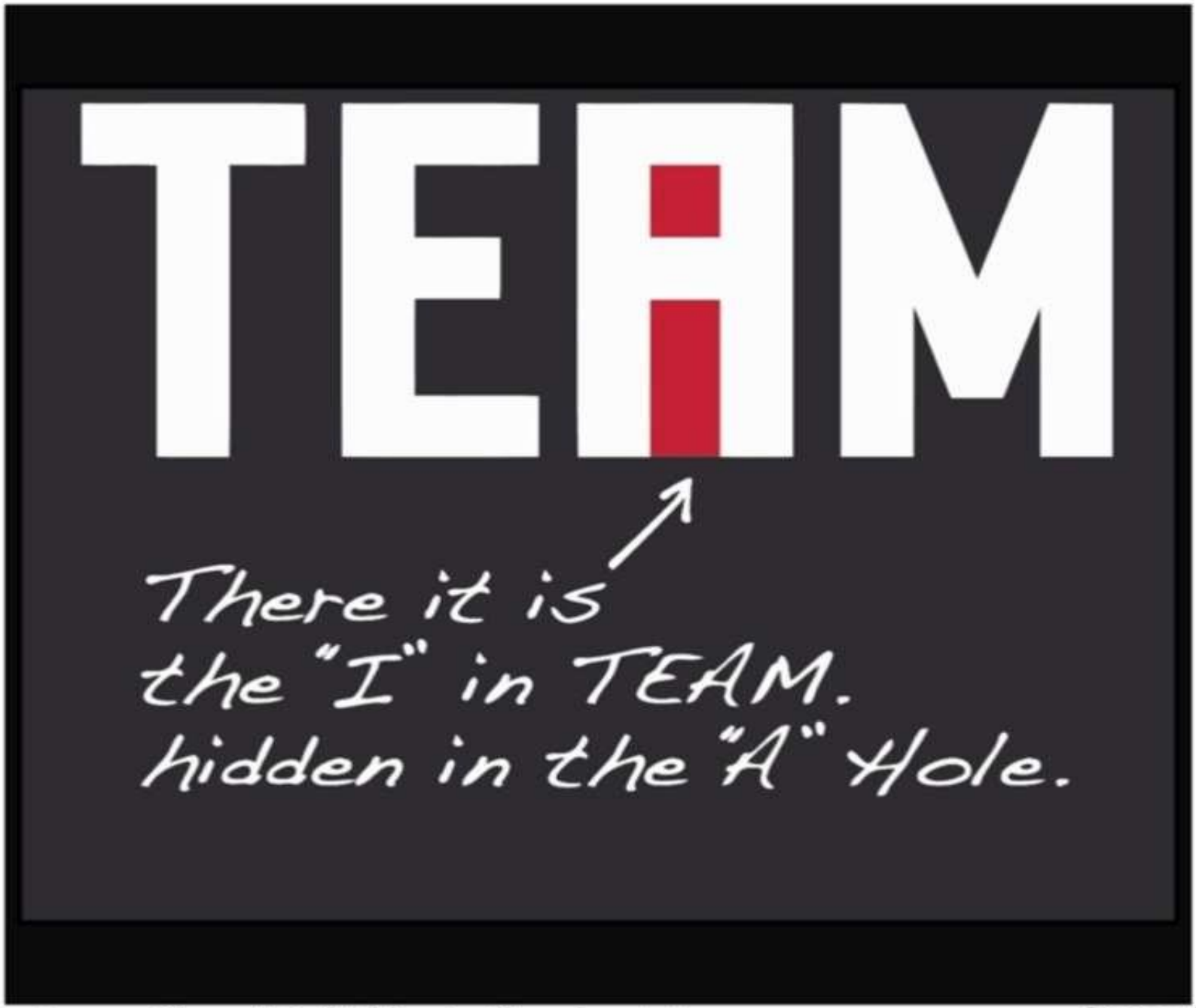



I in Team - There it is hidden in the... *by ginjavv*

Zazzle

# Once Upon a Time

"By 2015, DevOps will evolve from a niche strategy employed by large cloud providers into a mainstream strategy employed by 20% of Global 2000 organizations."

Patrick Debois

2008

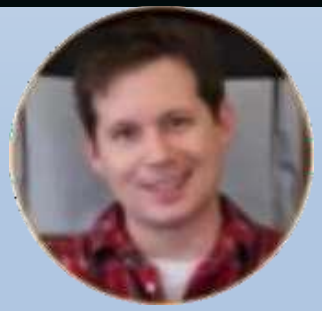
2009

Cameron Haight

2011

2013

2015+



John Allpaw

Paul Hammond

Gene Kim

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# Why DevOps?

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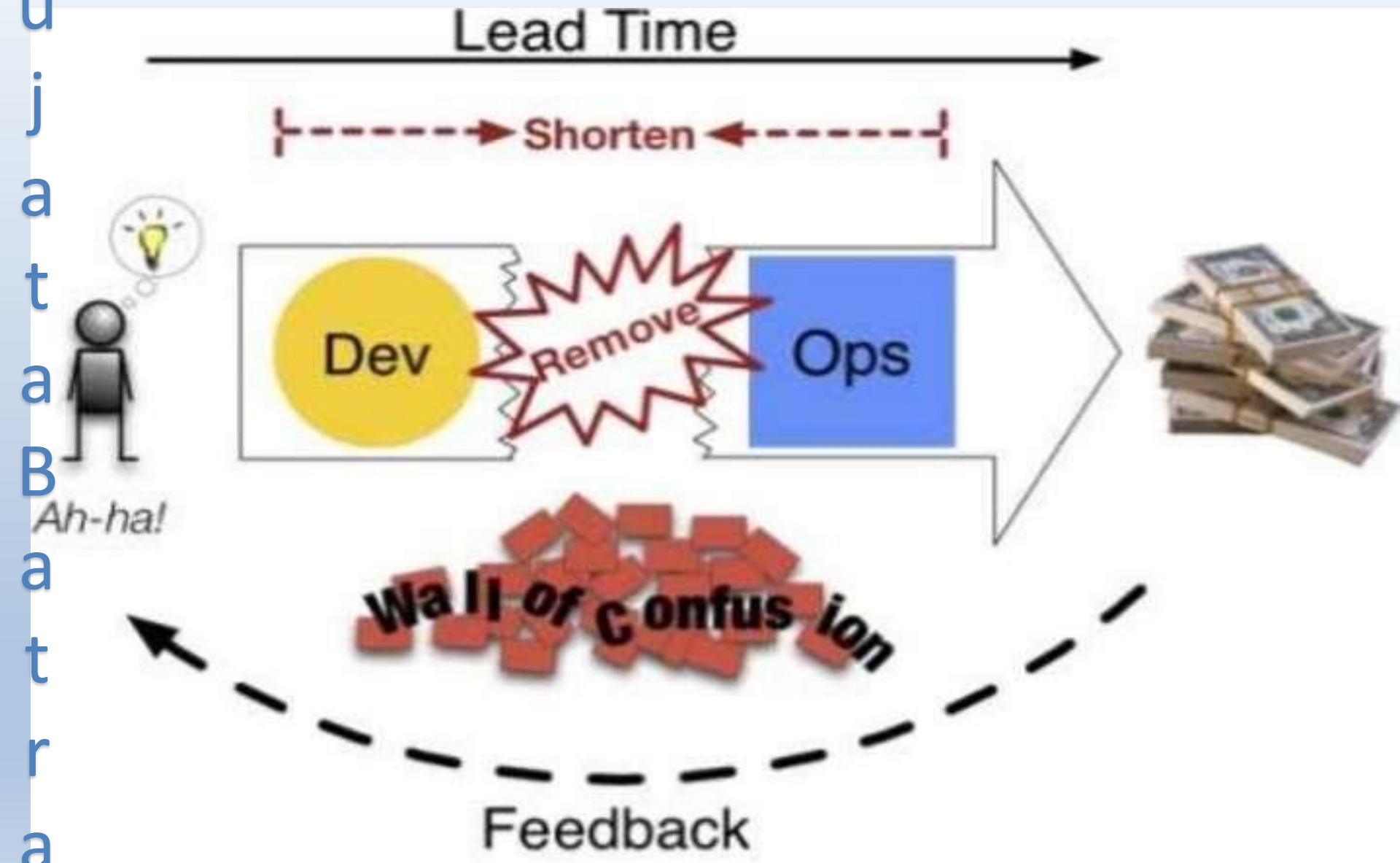

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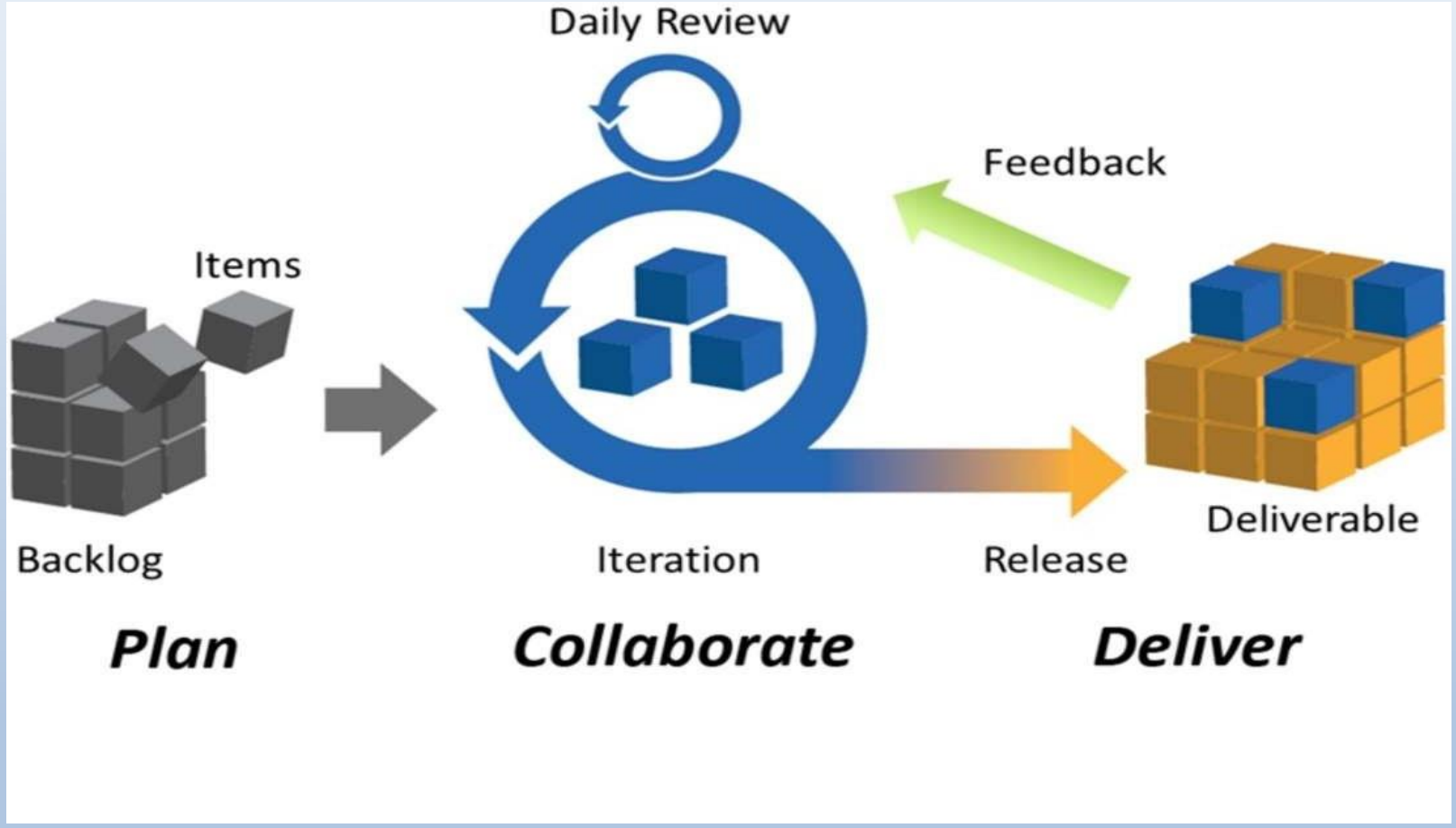

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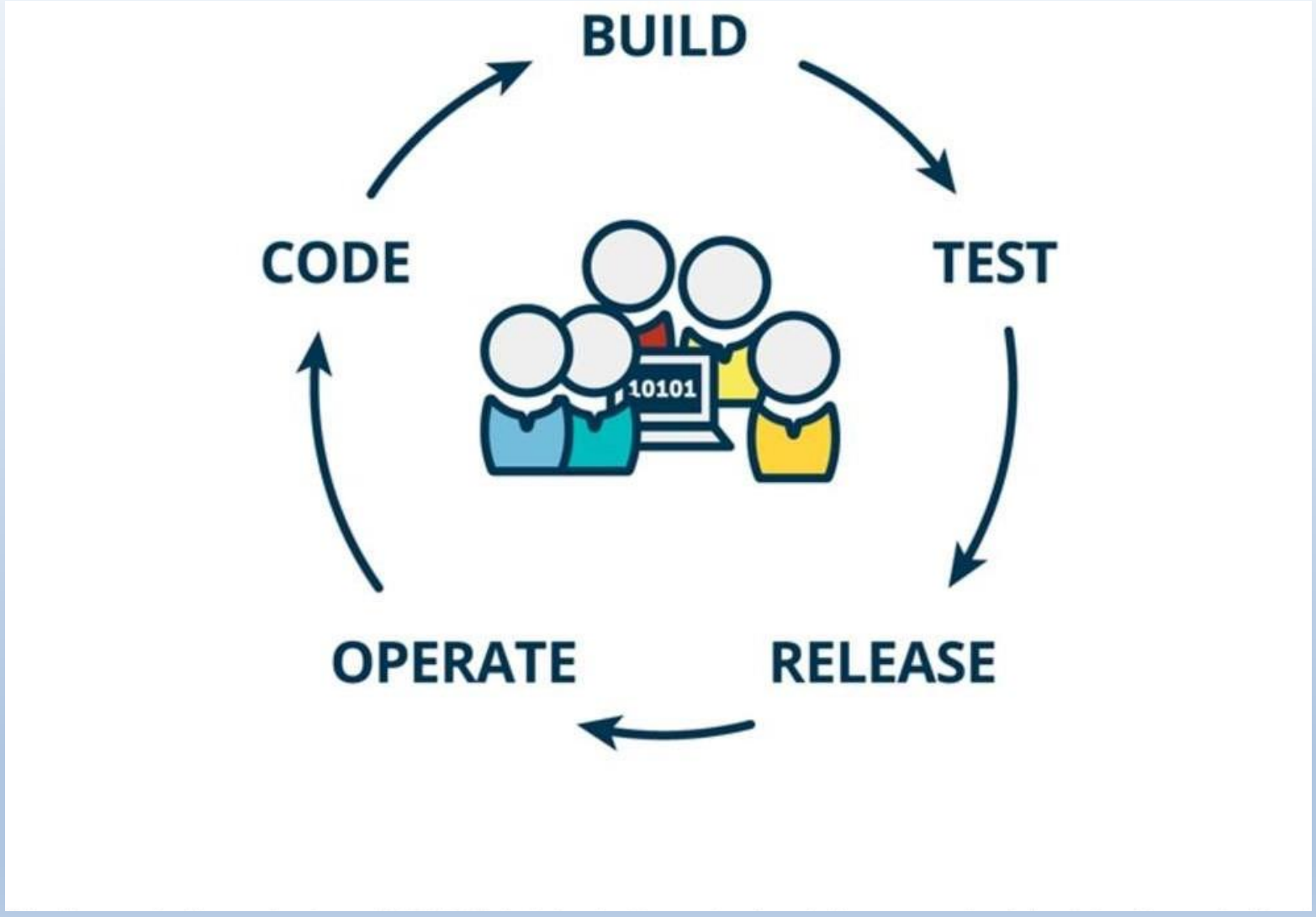

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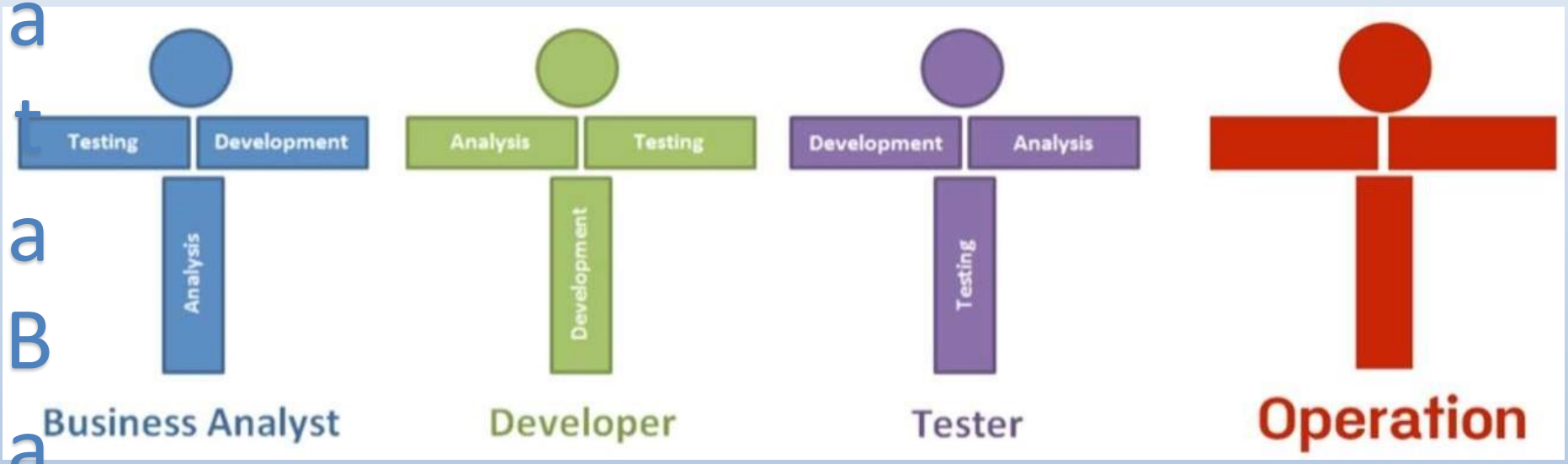

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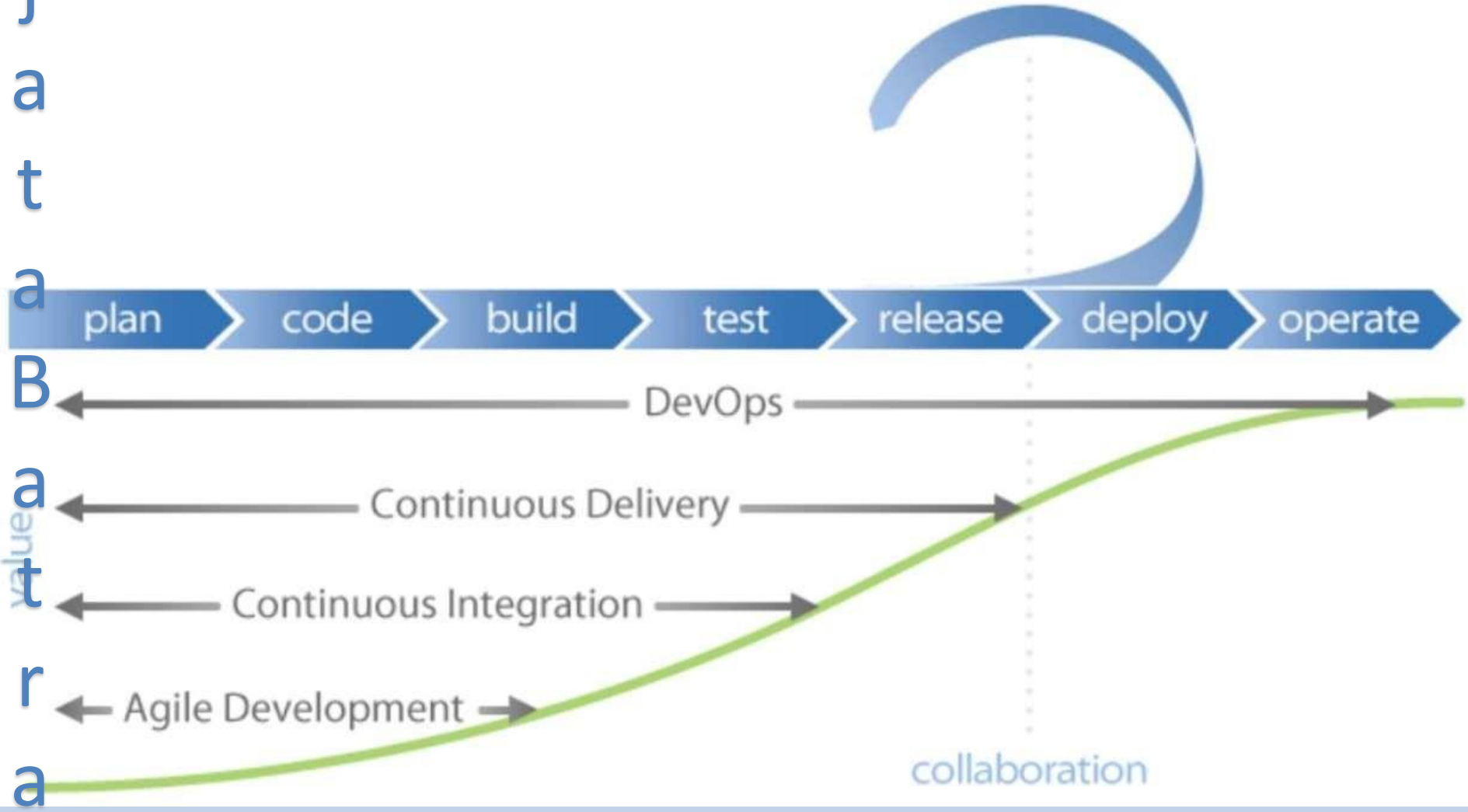
# Why does it Matter?



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# How to start DevOps?

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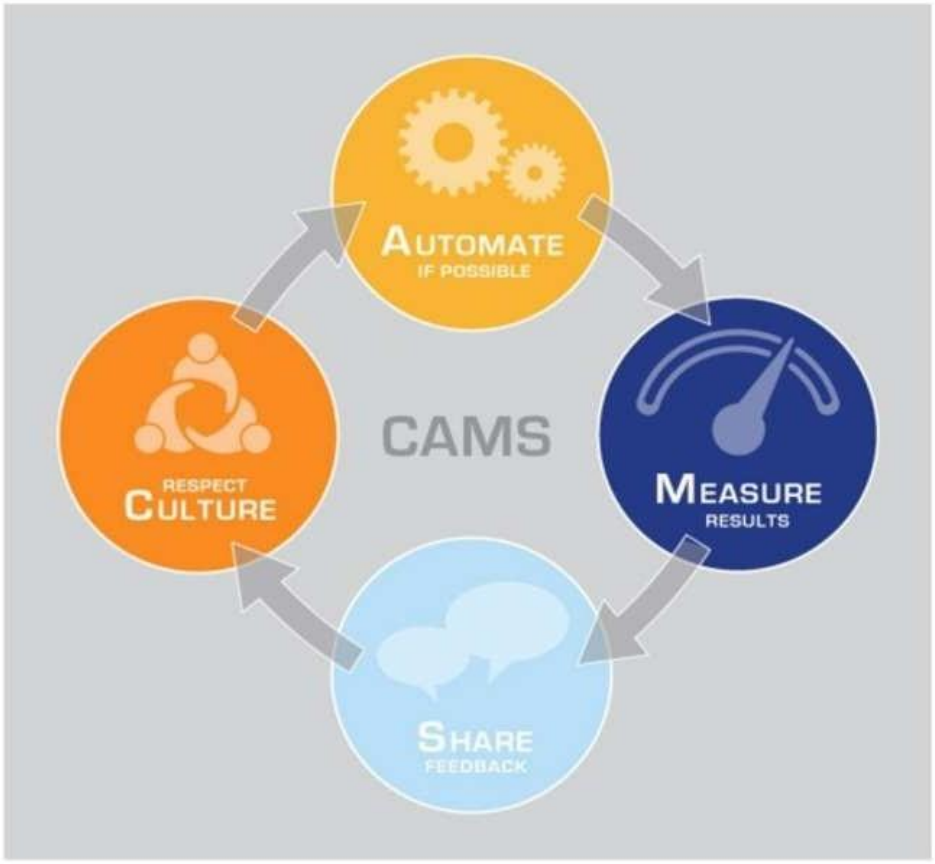
# DevOps Principles



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# DevOps Principles

**C**ulture => People, Process, Tools

**A**utomation => Infrastructure as Code

**M**easurement => Measure everything

**S**haring => Collaboration/Feedback

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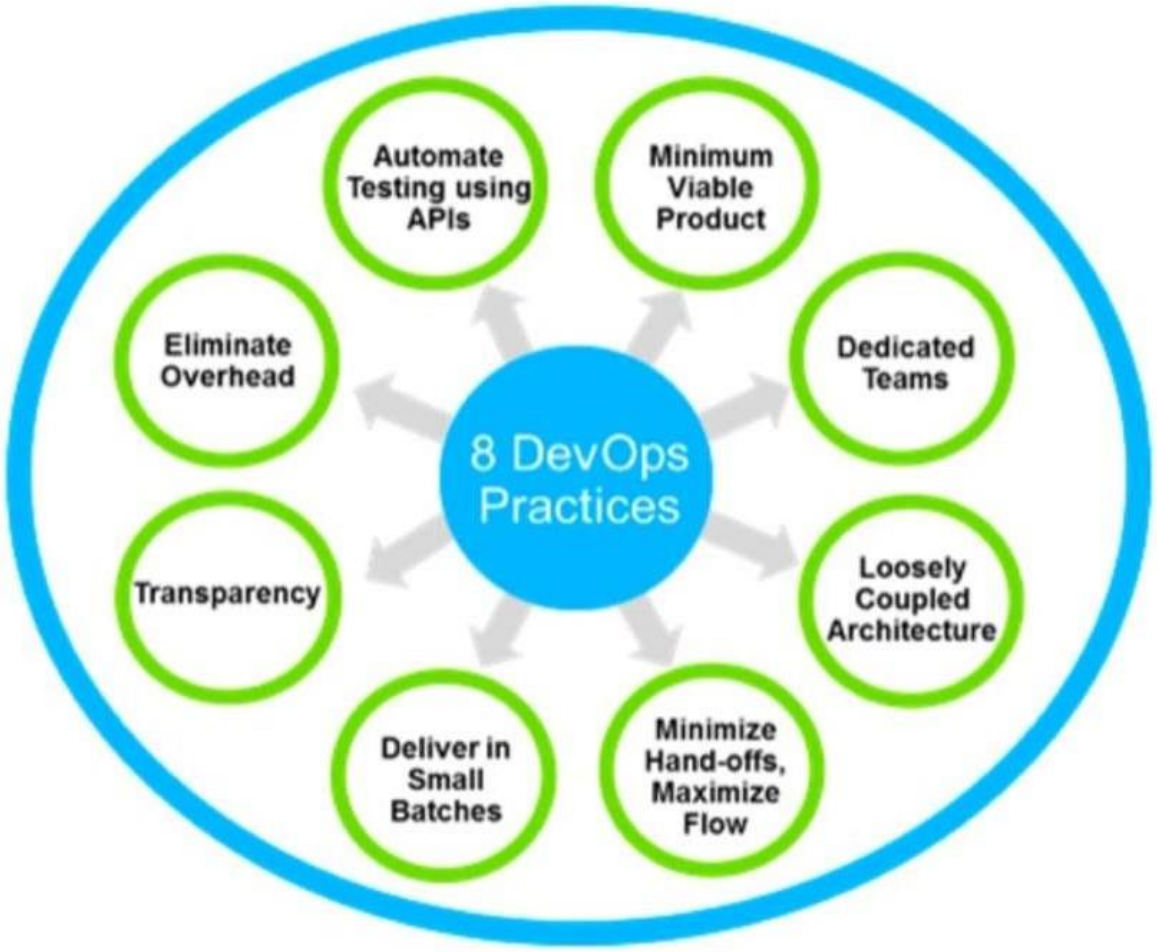
# DevOps Practices



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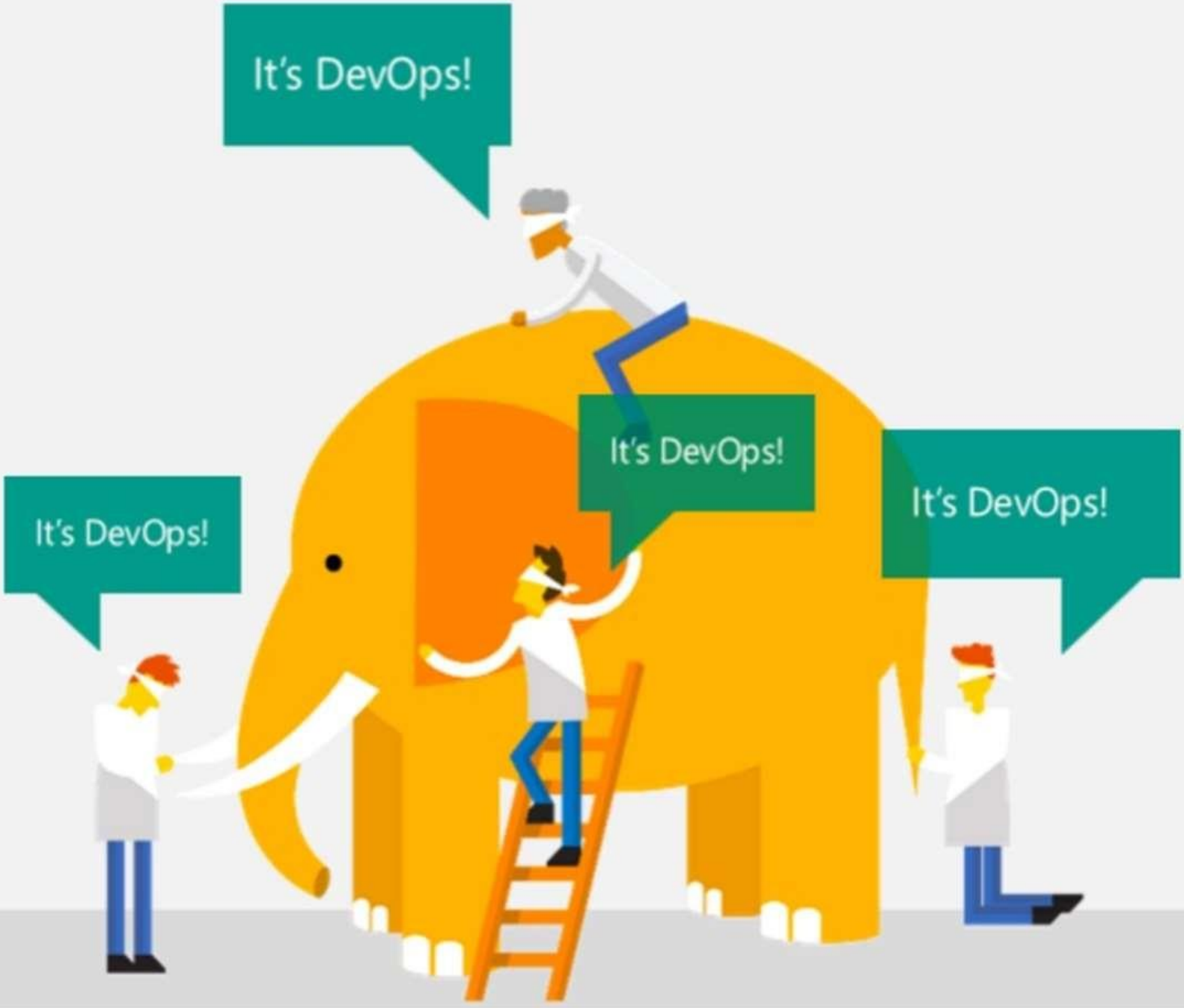

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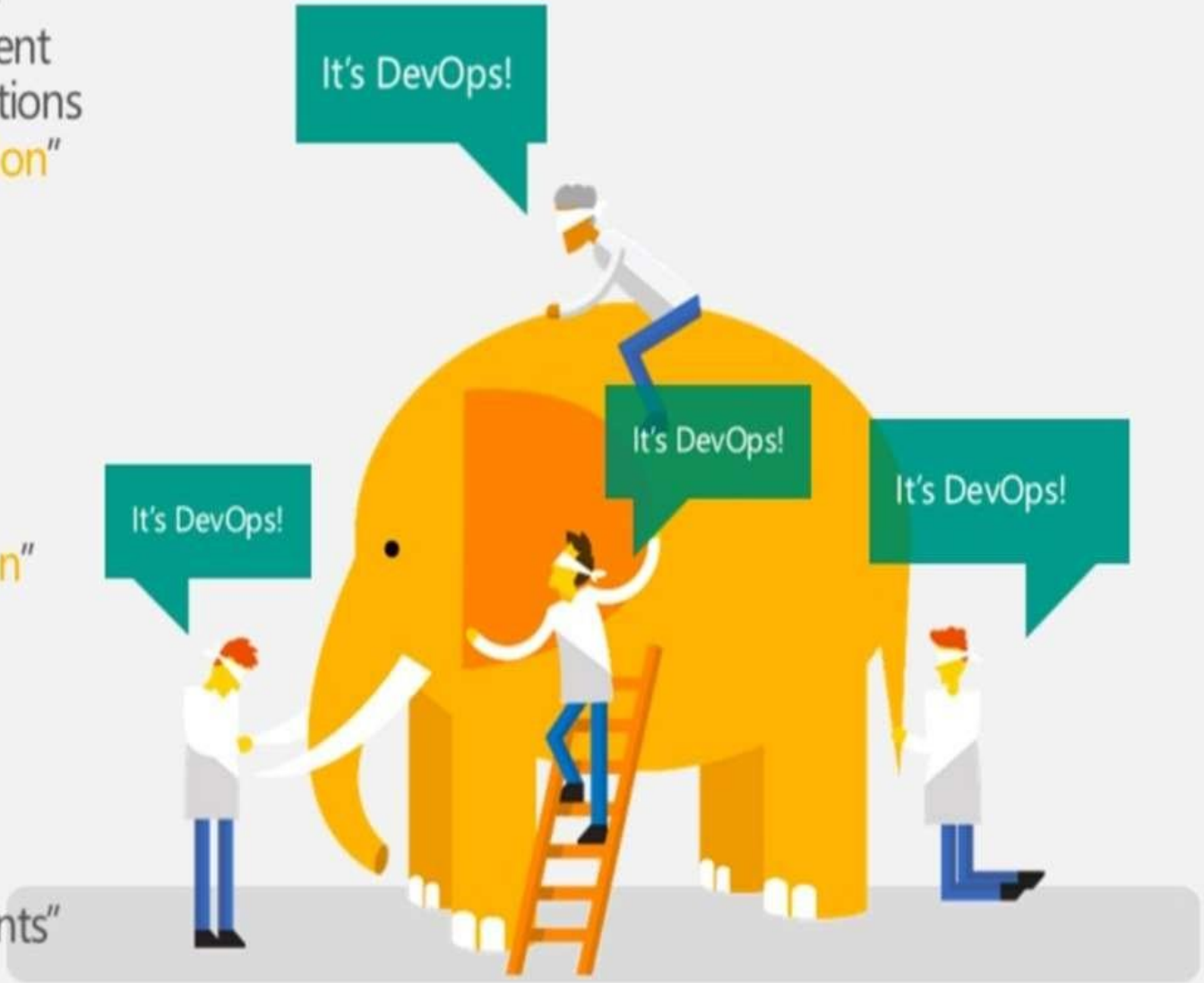
"DevOps is development and operations collaboration"
It's DevOps!
"DevOps is treating your infrastructure as code"
"DevOps is using automation"
It's DevOps!
It's DevOps!
It's DevOps!
"DevOps is feature switches"
"DevOps is small deployments"
"Kanban for Ops?"

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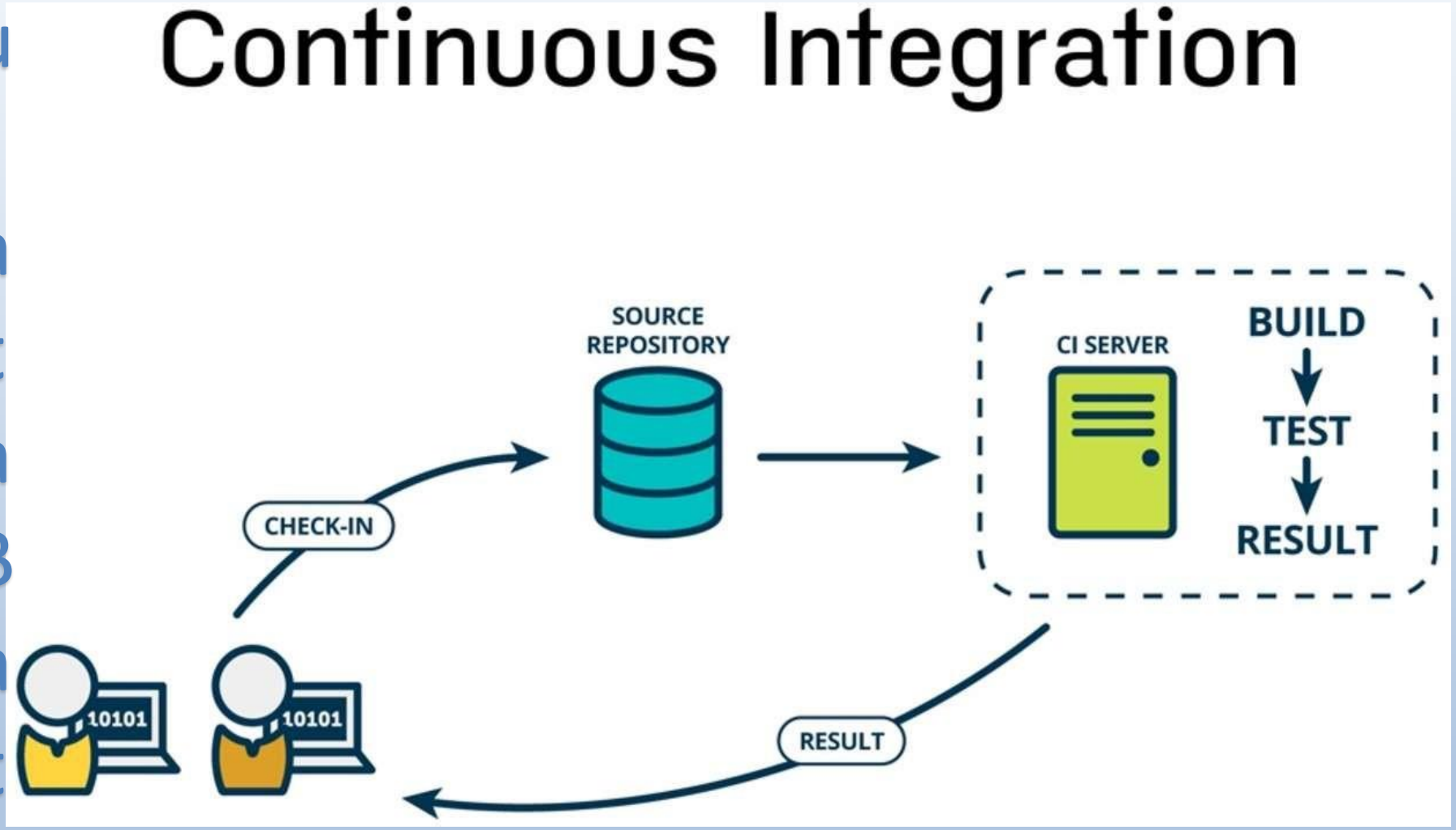
# Continuous Integration



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Jenkins

Bamboo

TeamCity

go

Visual Studio
Team Foundation Server

Hudson

Travis

wercker

circleci

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# CI is a practice

Discipline to **integrate frequently**

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# CI is a practice

Strive to make **small change**

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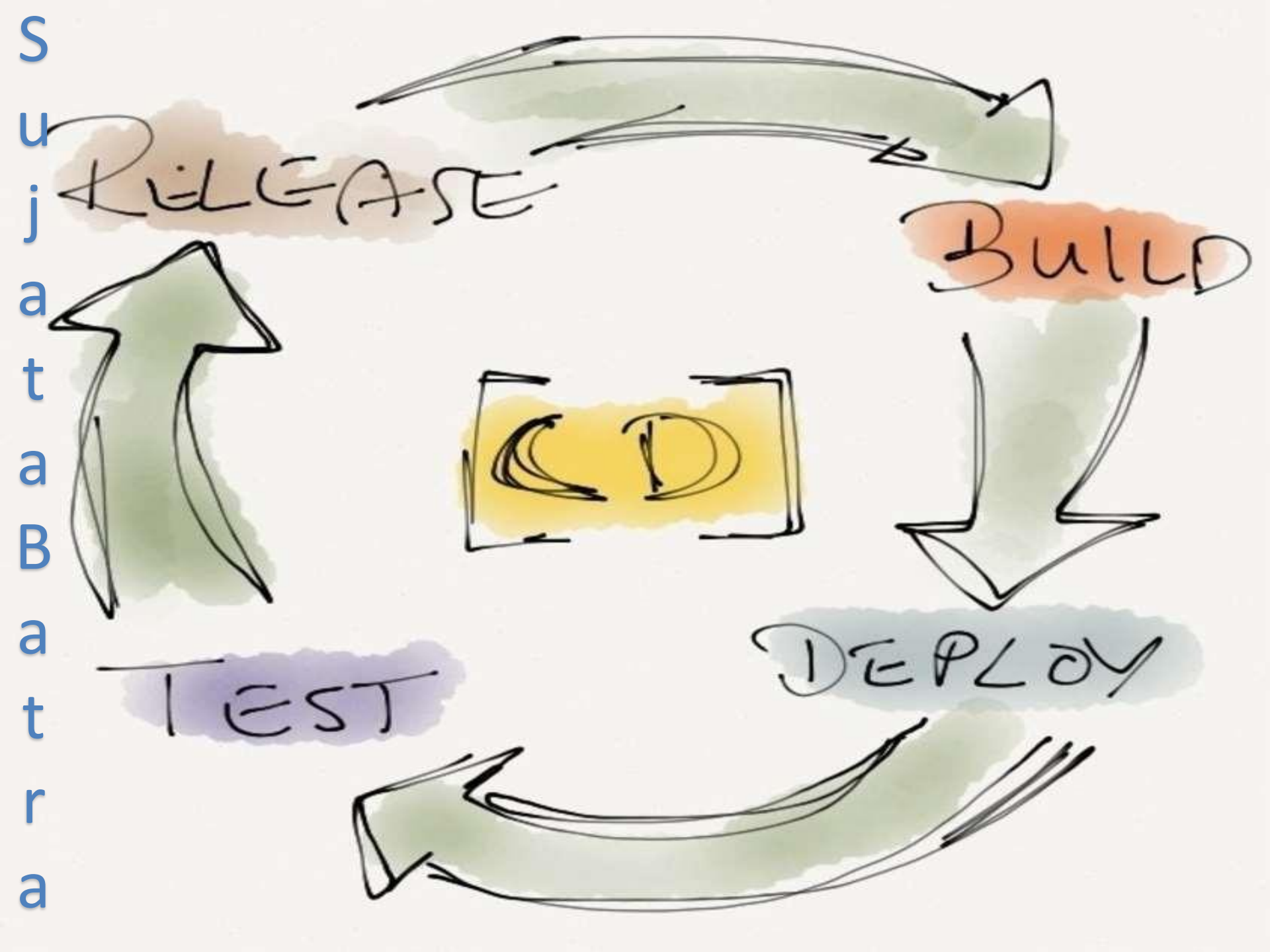
# CI is a practice

## Strive for **fast feedback**

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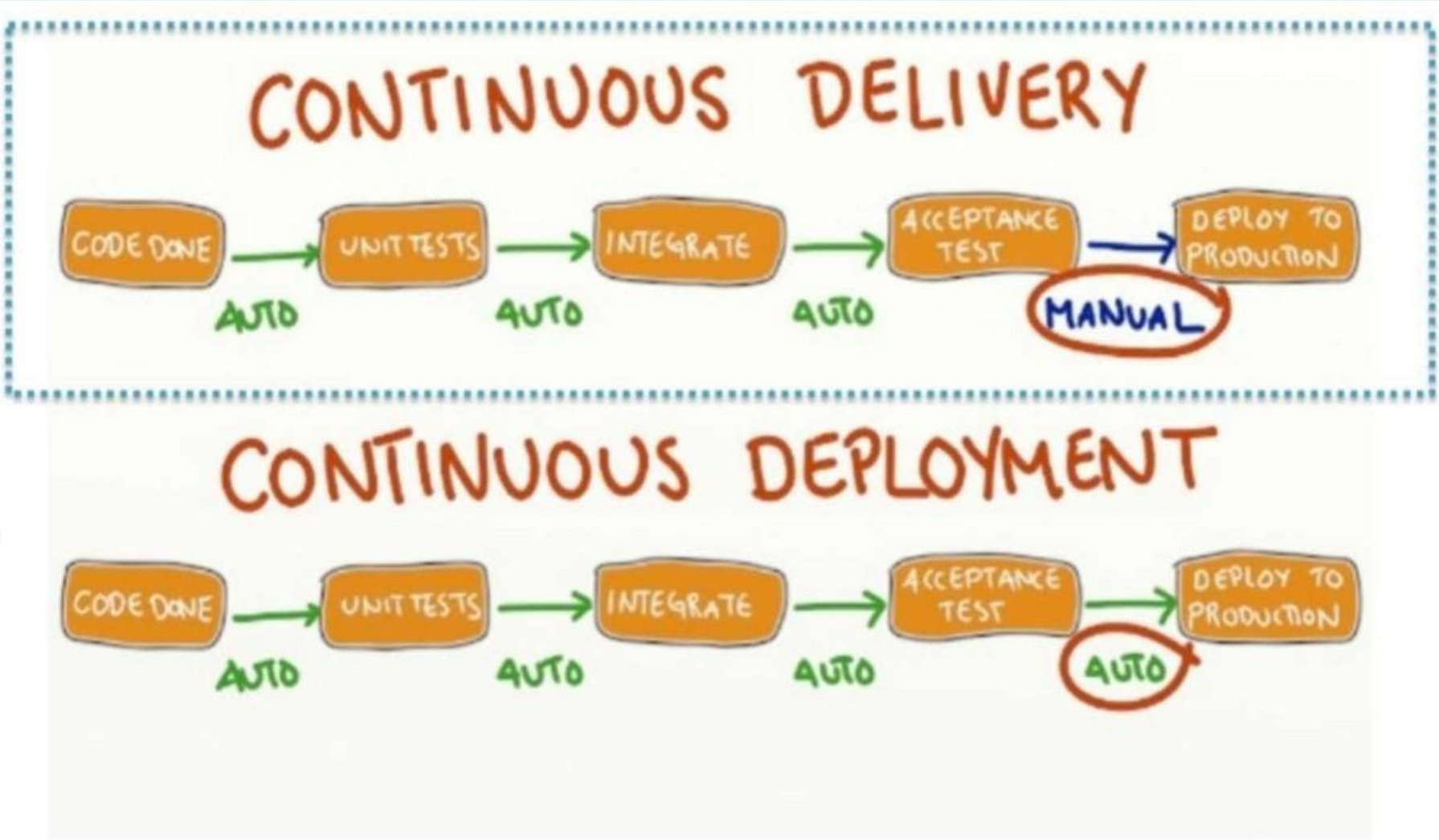


http://blog.crisp.se/2013/02/05/yassalsundman/continuous-delivery-vs-continuous-deployment

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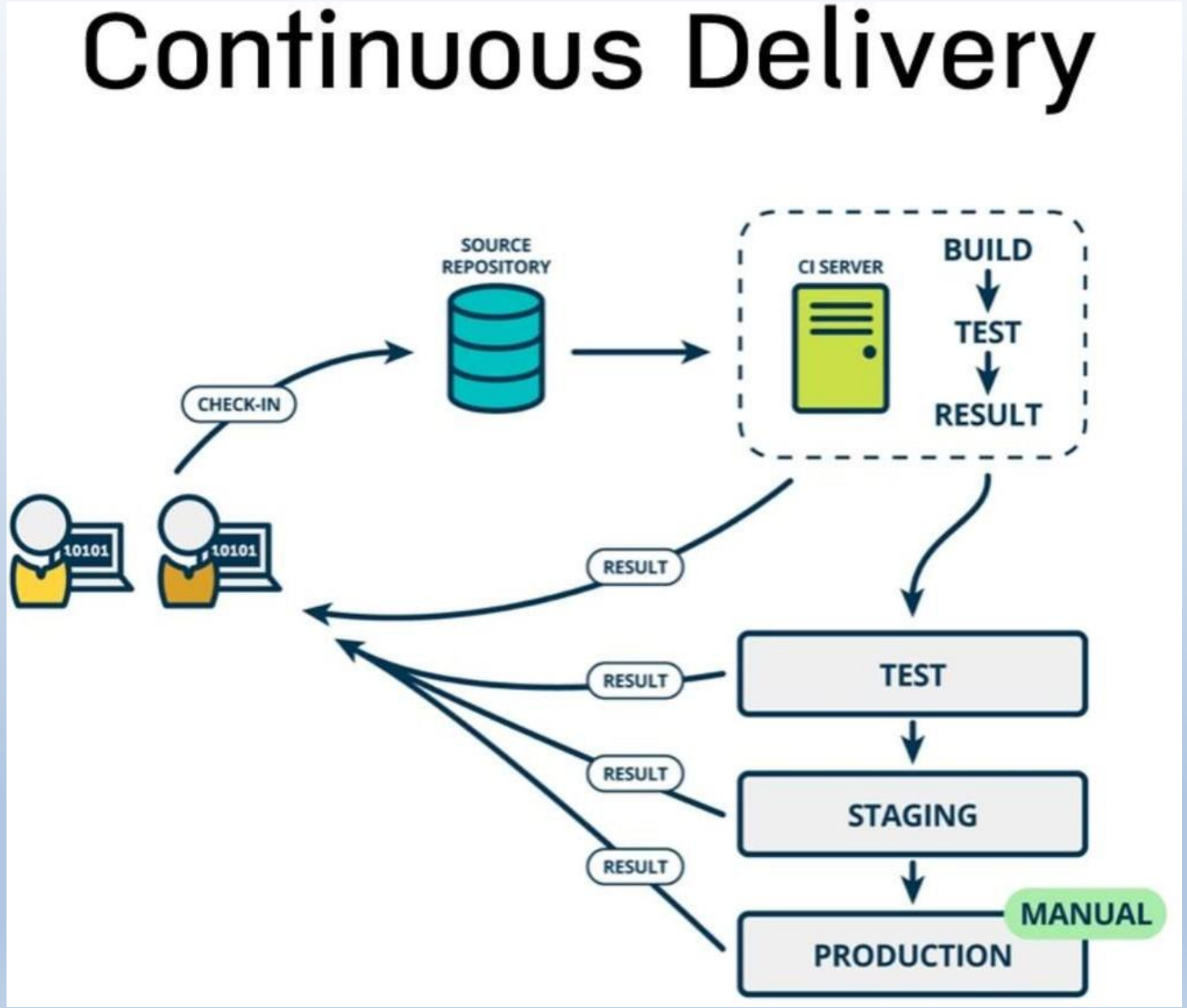
# Continuous Delivery



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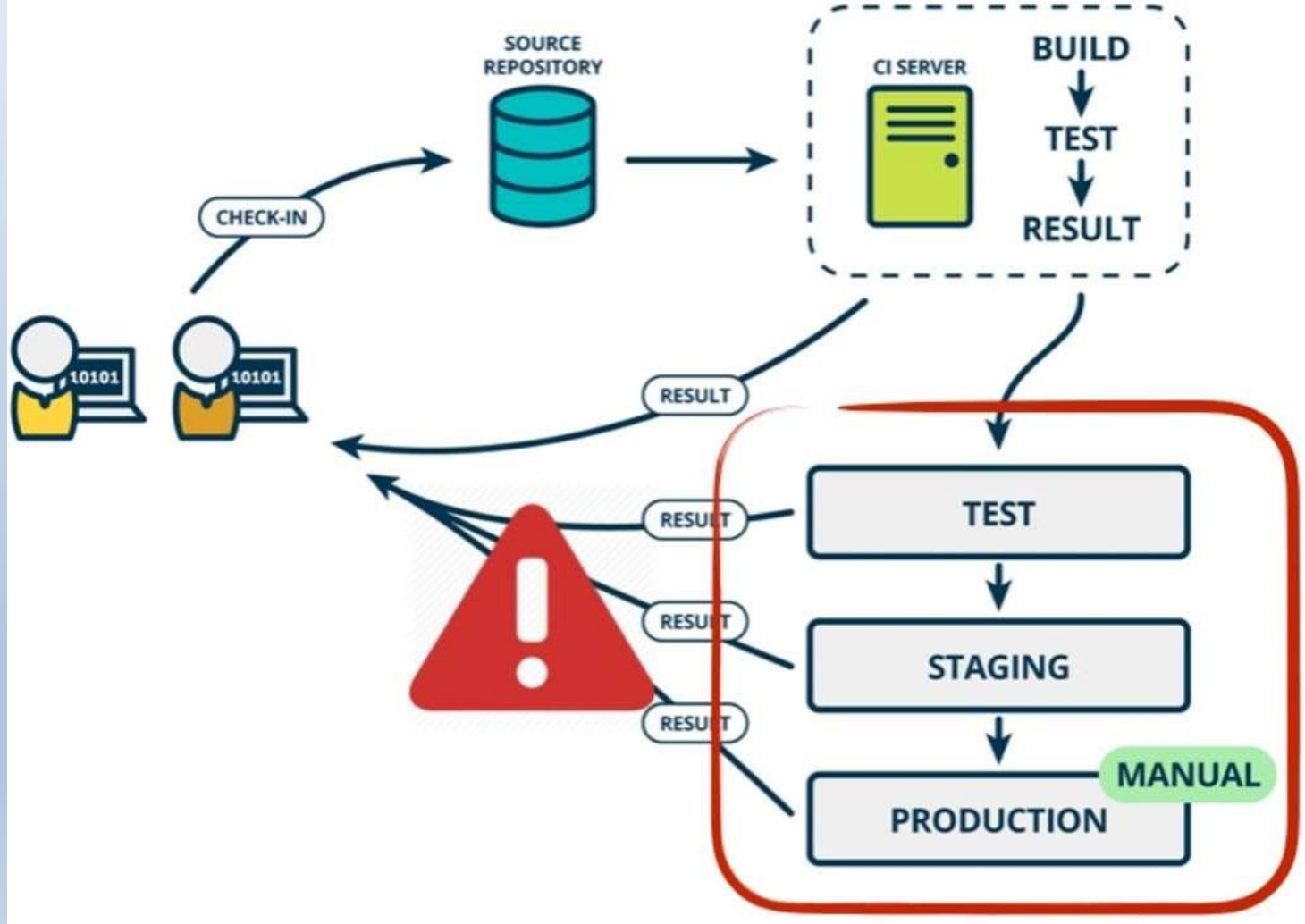
# Continuous Delivery



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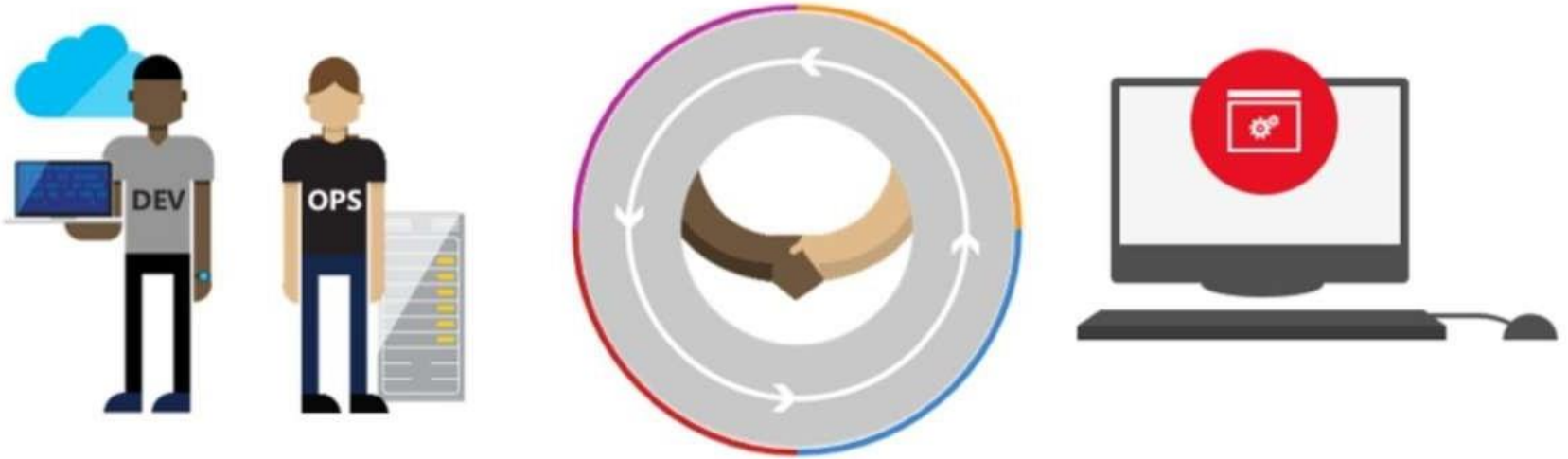
# DevOps culture




1 People

2 Process

3 Products

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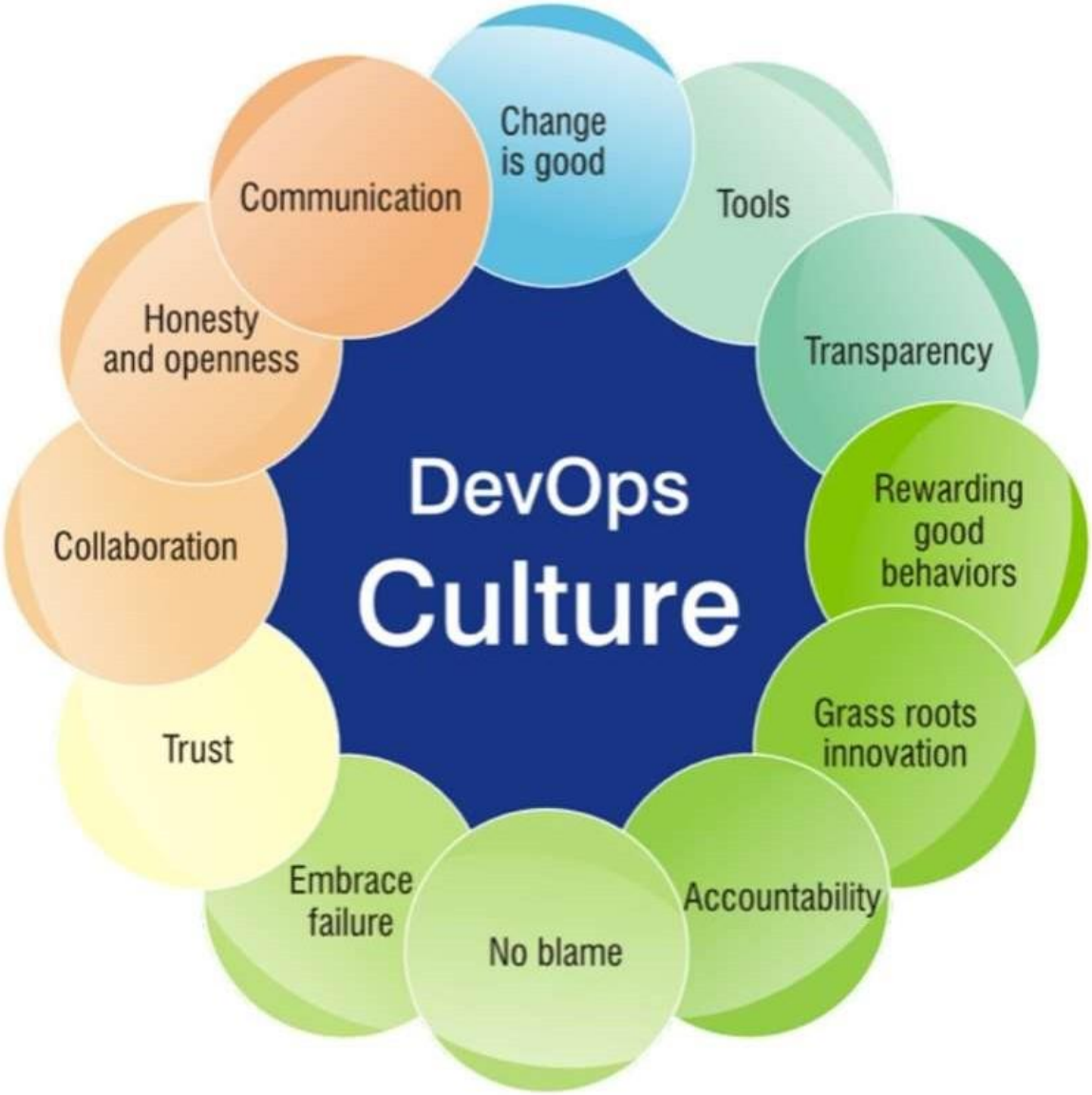

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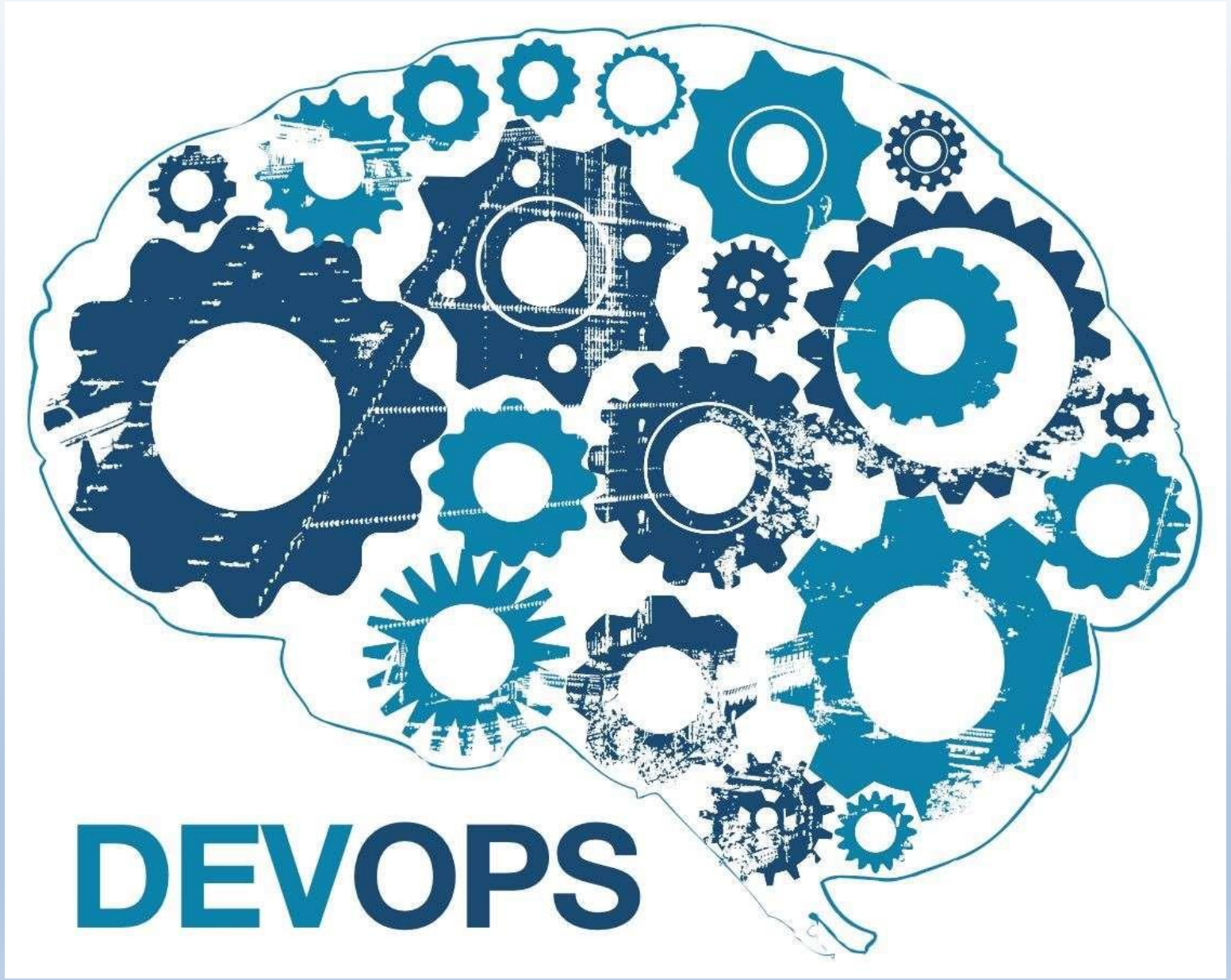

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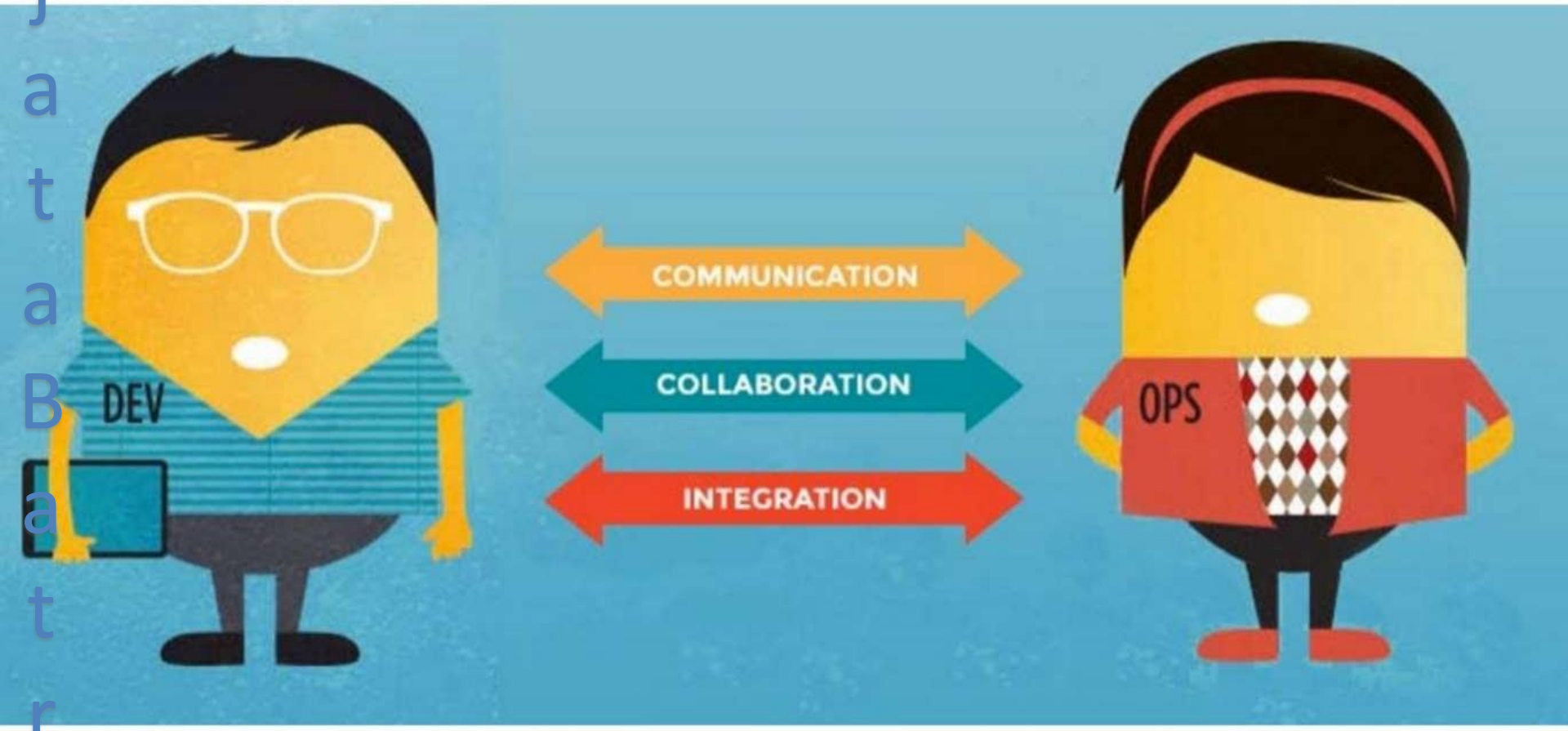
# DevOps



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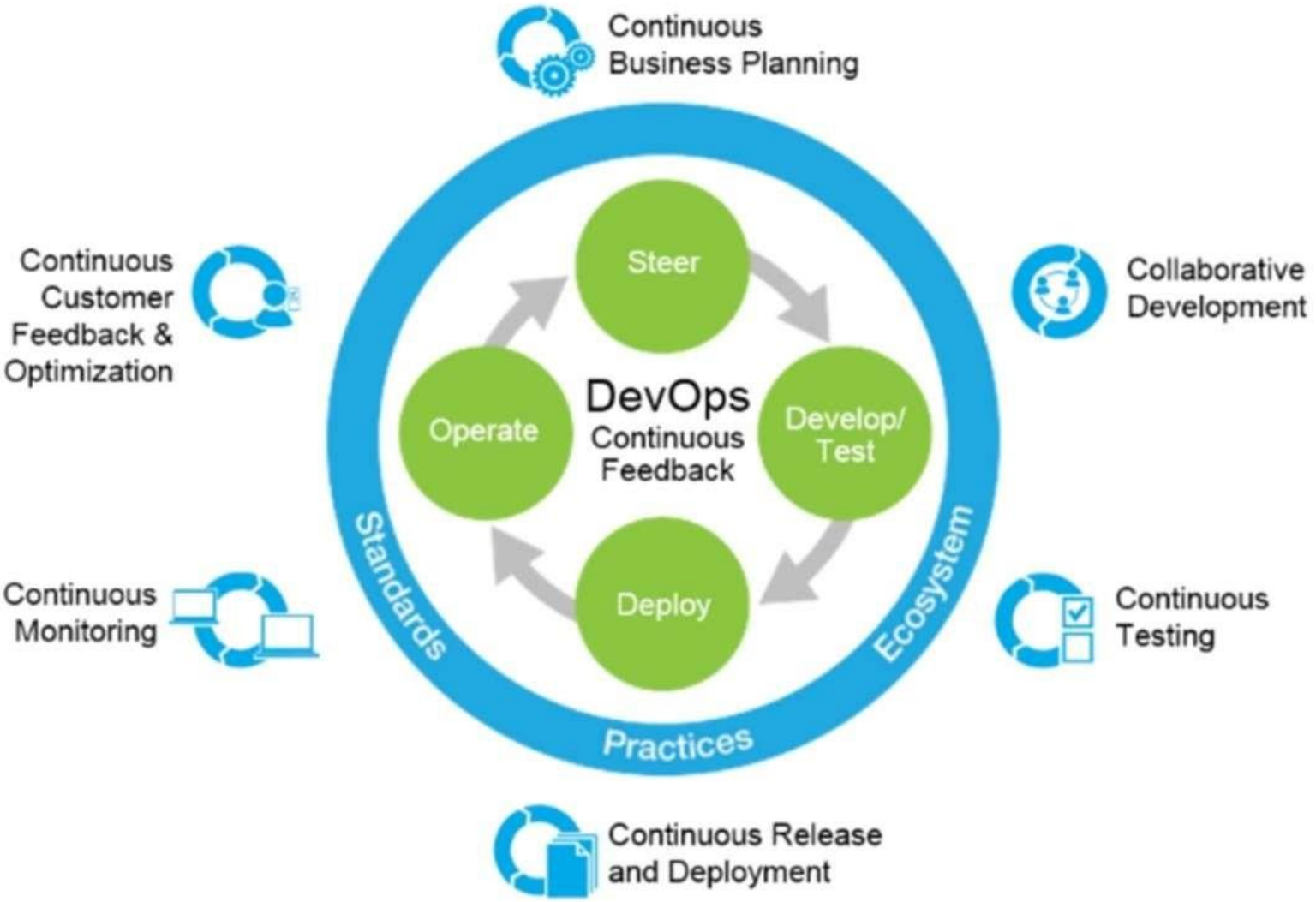
# Goals




https://www.linkedin.com/pulse/9-critical-steps-devops-transformation-enterprises-sakthi-vadivelu

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# Add Ops into Dev

- Enhance Service Design with Operation al Knowledge
  - Reliability
  - Performance
  - Security
  - Test Them
- Build Feedback Loops from Production
  - Monitoring and KPI Dashboards
  - Postmortems
- Foster Culture of Responsibility
  - Whether your code passes test, gets deployed and stays up for users us your responsibility
- Make Development Better with Ops
  - Productionlike enviromnents
  - Power tooling

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# Accelerate Flow to Production

- Reduce batch size
- Automated environments means identical dev/test/prod
- Create safety through automation
  - Continuous Integration/Testing
  - Automated Regression Testing
  - Continuous Delivery
  - Continuous Deployment
  - Feature Flags (A/B Testing)
  - Security Testing

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# Add Dev into Ops

- Don’t do tasks for people
  - Build tools so they can do their own work
- Monitoring/logging/metrics feeds back into dev (and the business)
- Blameless incident postmortems
- Developers Do production support/empower ops acceptance