Devops

CI/CD @ TechHub

Agenda

- Introduction
- Definitions
- DevOps Practices
- Continuous Integration
- Continuous Delivery
- Demo

Introduction

Introduction
DevOps

What is DevOps?

01 SEPTEMBER 2015 DONOVAN-BROWN WORK (24)

DevOps is the union of people, process, and products to enable continuous delivery of value to our end users.

I am very deliberate in the terms used in this definition. I choose value over software. DevOps is not just automating a pipeline so we can quickly deliver software. Our goal is to deliver value. The term end users was also very carefully chosen. The value we produce must reach our end users. If the value only reaches the Dev and QA environments but is held up before reaching production where it can be realized by our end users, we are still failing.

It is very important to realize that DevOps is not a product. You cannot buy DevOps and install it. DevOps is not just automation or infrastructure as code. DevOps is people following a process enabled by products to deliver value to our end users.

Donovan Brown Microsoft

Donovan Brown is a Senior DevOps Program Manager on **Microsoft's** US Developer Division team. ... Before joining **Microsoft**, **Donovan** spent seven years as a Process Consultant and a Certified Scrum Master. Developer Tools are his thing.

Donovan Brown | Speakers | Channel 9
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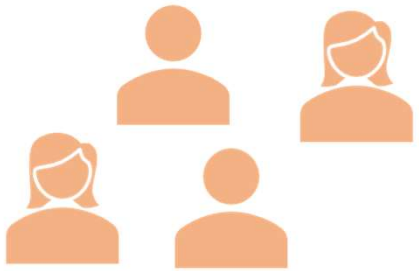
Definitions
Not DevOps



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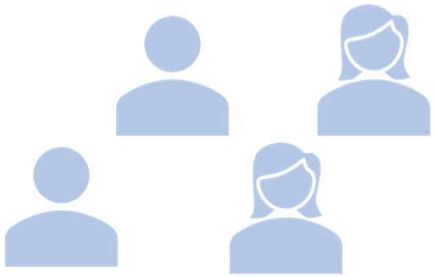
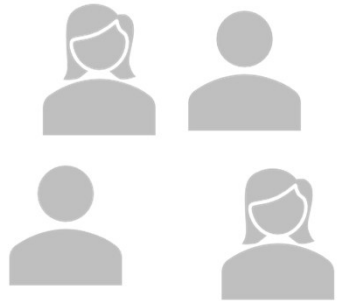


Developers

Separate Scope of Responsability
Silos of work
Dependent Teams

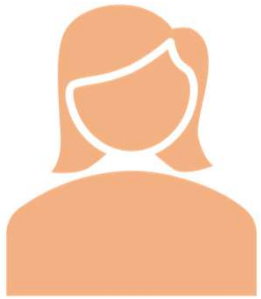


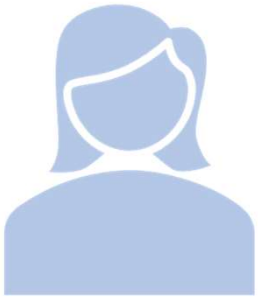
Operations

Plan & Document

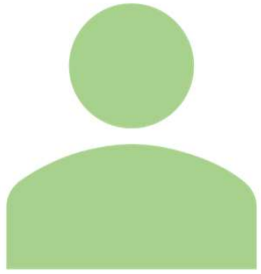
Definitions

DevOps - Culture

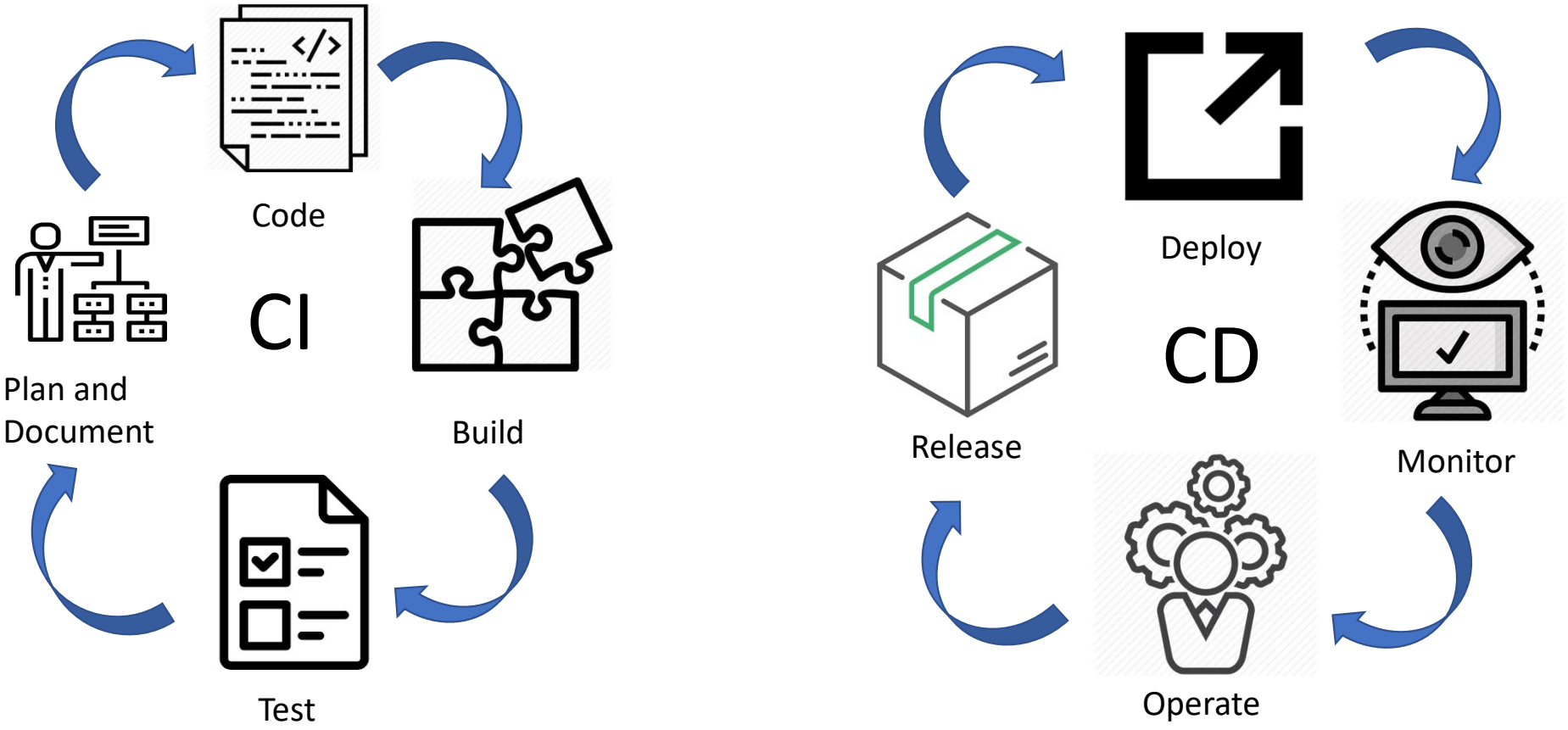




- Shared Responsability
- Collaboration
- Feedback
- Autonomous

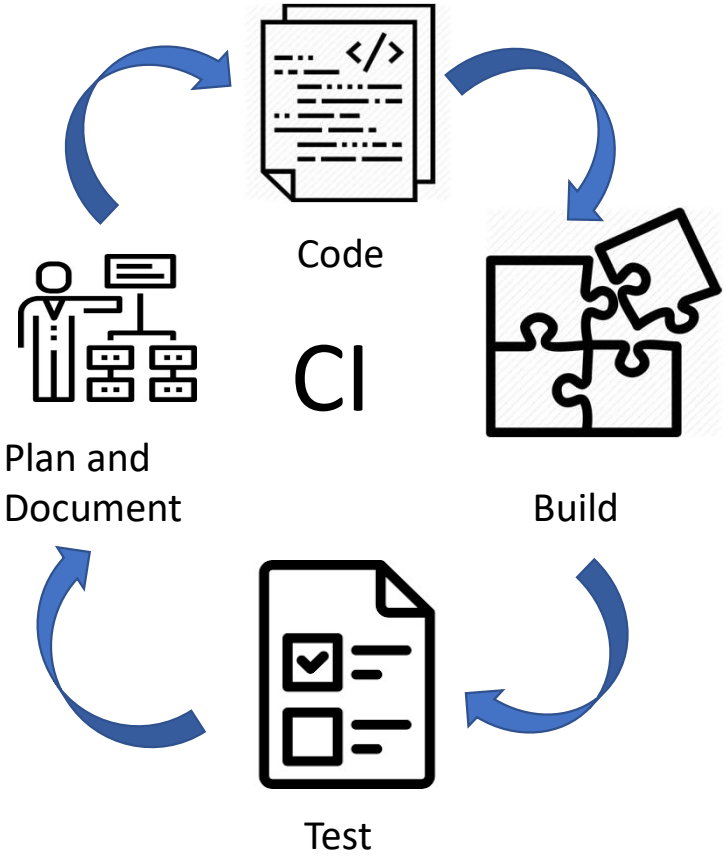


DevOps Practices



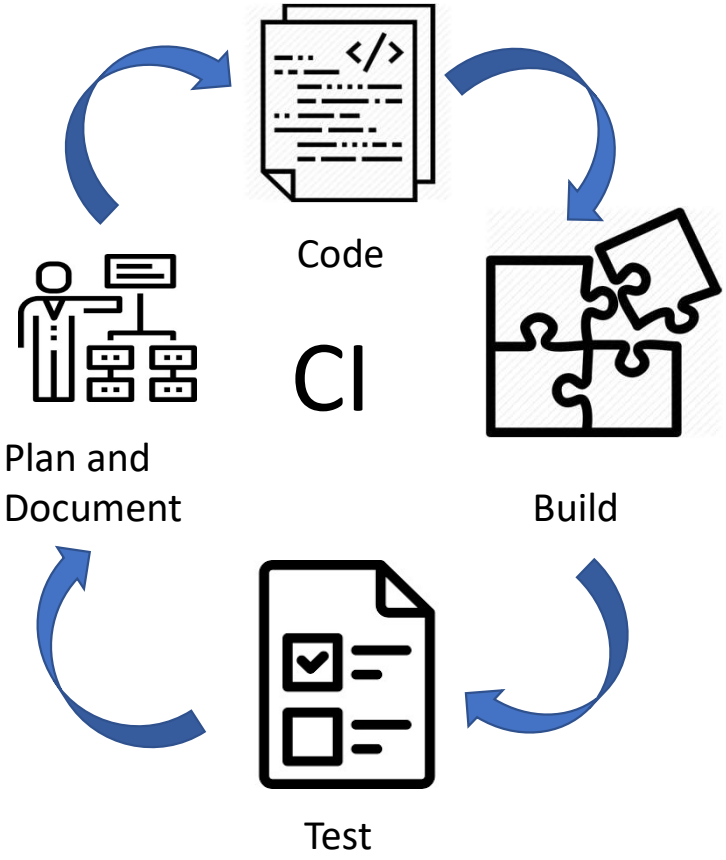
Continuous Integration

- Plan & Document
  - Scope
  - Effort
  - Priorities
- Code
  - Versioning mainline
  - Start work anytime from mainline
  - Automated Integration to mainline



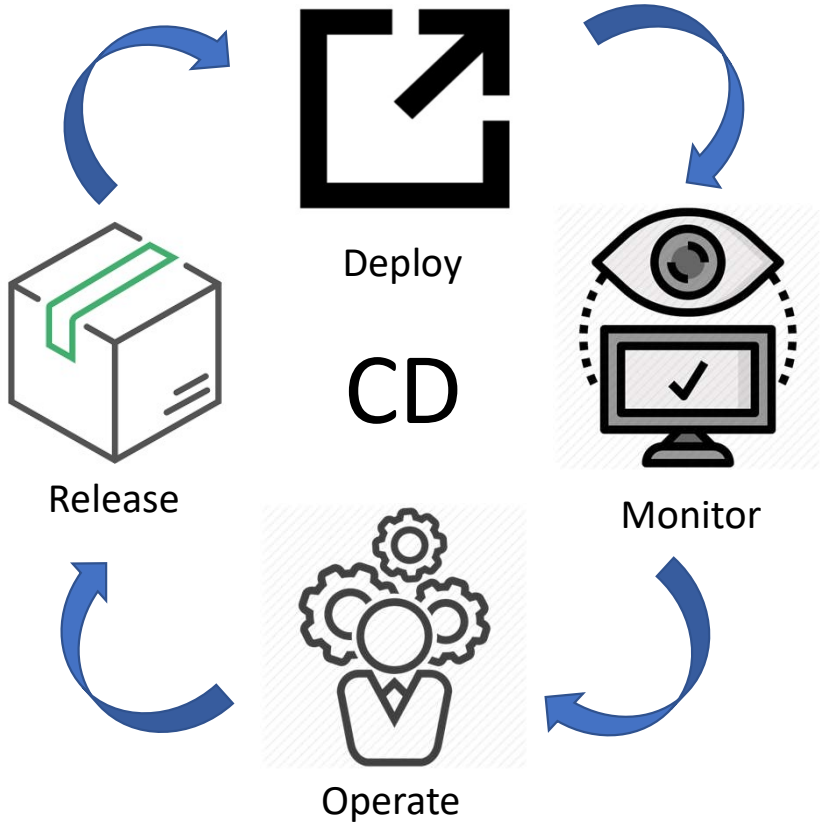
Continuous Integration

- Build
  - Automated Builds from any branch
  - Fast builds
  - Easy to reproduce
  - Maintain output available
  - Result should always be sucess
    - If not … fix it ASAP
- Tests
  - Automate unit tests
  - Maintain tests simple and focus
  - enable static code analysis
- Pipeline all of this



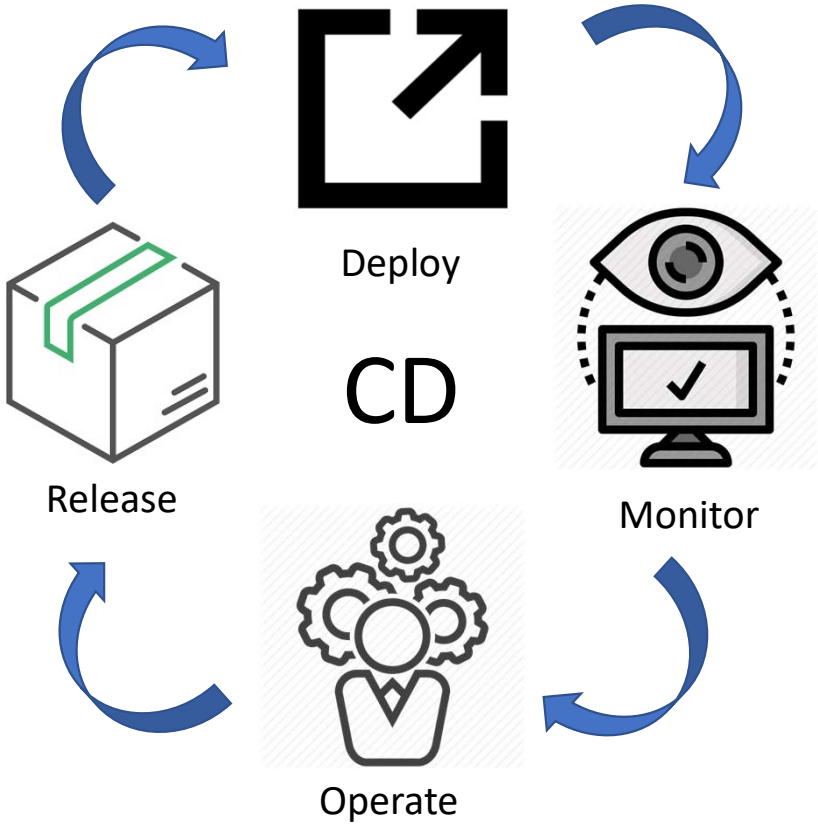
Continuous Delivery

- Release
  - Scope
  - Versioning
  - Triggered by sucessful builds
  - Manage dependencies
  - Deploy @ anytime
- Deploy
  - Configure once, deploy allways
  - Triggered by release
  - Environments for everyone
  - Enable Approvals checkpoints
  - Environments similiar to production
  - Enable fast roolback mechanisms



Continuous Delivery

- Monitor
  - Applications
    - logs by severity configurable
  - Infrastructure
    - Health checks
  - Orchestration
    - Maintain correlation Ids
- Operate
  - Manage application instances
    - Provisioning
    - Scalability
  - Manage infrastruture maintain applications



YOU BUILD IT
YOU RUN IT