

Plataformas e Serviços X-Ops (16233)

Getting Started

(adapted from *Engineering Software Products: An Introduction to Modern Software Engineering*, Ian Sommerville, Pearson, 2020)

Imagine your team worked for 3 months. Today is release day — what can go wrong?



1

Go to wooclap.com

2

Enter the event code in the top banner

Event code

HAXKFT

Continuous integration

- ✧ Continuous integration simply means that an integrated version of the system is created and tested every time a change is pushed to the system's shared repository.
- ✧ On completion of the push operation, the repository sends a message to an integration server to build a new version of the product
- ✧ The advantage of continuous integration compared to less frequent integration (or even *big bang* integrations) is that it is faster to find and fix bugs in the system.

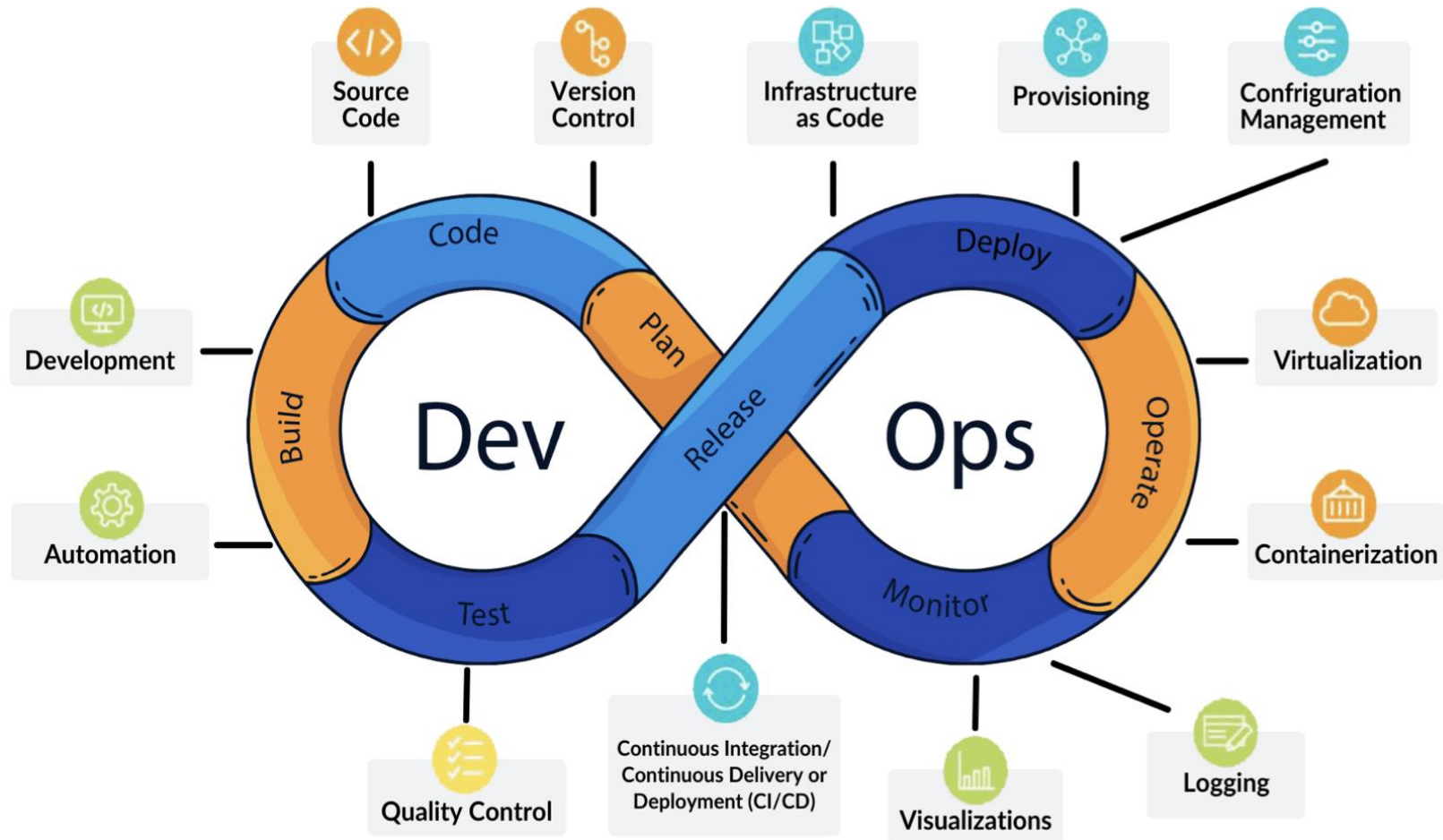
Continuous delivery

- ✧ Continuous Delivery is a software engineering practice that extends continuous integration by ensuring that every change to the codebase is automatically built, tested, and prepared for release into production.
- ✧ It emphasizes automation, quality assurance, and repeatable deployment processes, so that software can be delivered quickly, reliably, and on demand.
- ✧ The goal is to keep the product in a deployable state at all times, reducing release risk and enabling faster feedback from users.

DevOps

- ✧ A software engineering approach focused on streamlining the software development lifecycle by fostering collaboration, communication, and automation between development and operations teams.
- ✧ It emphasizes continuous integration, continuous delivery, and continuous improvement to deliver software faster, more reliably, and with better quality.

DevOps lifecycle



Reflection question

- ✧ *Which parts of the software delivery process should always be automated, and which parts still benefit from human judgment?*

Reflection question

- ✧ *Why is DevOps not only about tools and automation, but also about collaboration between teams?*

Reflection question

✧ *If AI agents can fix code, run tests, and deploy automatically, what role will humans play in future CI/CD pipelines?*

