Udapeople
Benefits of CI/CD

Overview

- What is CI/CD stand for

- Continuous integration goals

- Effects of CI/CD

- What are the challenges

What is CI/CD stand for

- Continuous Integration

- The practice of merging all developers' working copies to a shared mainline several times a day. It's the process of "Making". Everything related to the code fits here, and it all culminates in the ultimate goal of CI: a high quality.

- Continuous Delivery

- A software engineering approach in which the value is delivered frequently through automated deployments. Everything related to deploying the artifact fits here. It's the process of "Moving" the artifact from the shelf to the spotlight.

Continuous integration goals

1. Automatically kick off a new release when new code is checked in
2. Build and test code in a consistent, repeatable environment
3. Continually have an artifact ready for deployment
4. Continually close feedback loop when build fails

Effects of CI/CD

Deployment frequency	Weekly – monthly	→	Hourly – daily
Change lead time	One – six months	→	One – seven days
Change failure rate	46 - 60%	→	0 - 15%

WHAT ARE THE CHALLENGES

- Establishing CI/CD comes with a high amount of initial cost and learning. At first sight this might seem overwhelming compared to current best practices

- Delivering CI/CD pipelines is not a one time effort, but requires constant support and maintenance as well as continuous development and improvement

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