

Fundamentals & Benefits of CI/CD

By OUMAR MERSILE ATTI MAHAMAT



Whats is CI/CD?

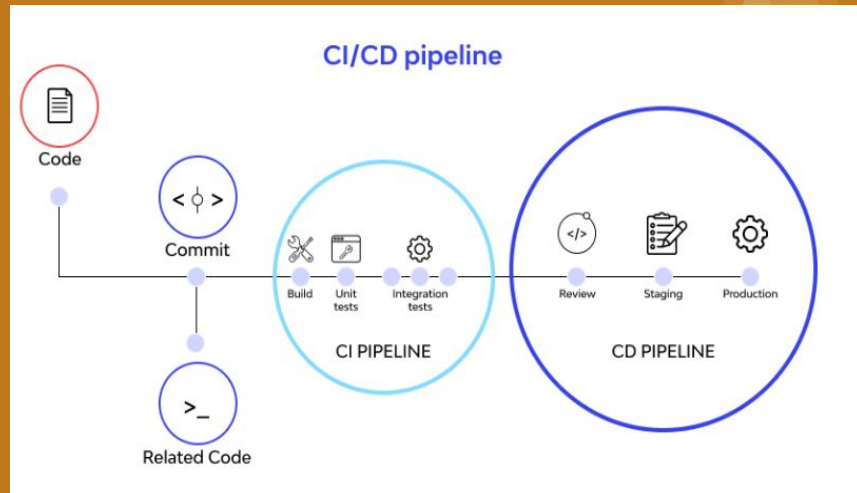
Continuous Integration (CI) and Continuous Delivery (CD) are terms that are utilized to address a lifestyle, rundown of operational aides and an assortment of practices that improve on the interaction of code adjustments and making coding more sold. This advancement interaction is alluded to as the CI/CD pipeline

- Continuous integration is a practice that encourages developers to integrate their code into a main branch of a shared repository early and often. It's the process of “**Making**”. Everything related to the code fits here
- Continuous delivery is an extension of continuous integration. It focuses on automating the software delivery process so that teams can easily and confidently deploy their code to production at any time

Continuous Deployment

=

Continuous Integration + Continuous Delivery



Benefits of CI/CD

- Faster time to market
- Reduced risk
- Shorter review time
- Better code quality
- Smoother path to production
- Faster bug fixes
- Efficient infrastructure
- Measurable progress
- Collaboration and communication
- Maximized creativity

Waterfall



Agile



DevOps



CI/CD benefits for business

- **Accelerate speed to market**

Shipping new features quickly means increasing your speed to market. First your customers are getting access to new features faster, leading to higher customer satisfaction and Your company is getting a faster return on investment from new features.

- **Cost reduction thanks to automation**

By automating actions, you can be sure that they're less prone to human error and easier to manage by the team. It also significantly reduces the cost of software development.

- **Increased business sustainability**

By automating manual tasks, you can prevent your team from burning down all the way before your business becomes successful.



Sources

1. <https://www.digitalocean.com/community/tutorials/an-introduction-to-continuous-integration-delivery-and-deployment#what-is-continuous-delivery-and-why-is-it-helpful>
2. <https://www.jetbrains.com/teamcity/ci-cd-guide/continuous-integration/>
3. <https://codete.com/blog/business-value-of-ci-cd>
4. <https://www.atlassian.com/continuous-delivery/principles/business-value>
5. Incididunt ut labore et dolore