

What is
CI/CD





What is CI/CD?

1. Continuous Integration – CI

- *The practice of merging all developers' working copies to a shared mainline several times a day.*
- After that, all the code will be built and tested automatically, quickly and quality.

2. Continuous Delivery

- *An engineering practice in which teams produce and release value in short cycles.*

3. Continuous Deployment – CD

- *A software engineering approach in which the value is delivered frequently through automated deployments.*
- *It is similar to **Continuous Delivery** but through automated deployments rather than manual ones.*



Benefit of CI/CD

1. CI

- Help Developer find out issues and errors as soon as possible, so they can quickly fix them before things go out of control.
- Reduce integration problem because it is automated, so that less human errors

2. CD

- Product will be deployed faster, automated and limited human error.
- Also, product will be delivered more frequently, get fast feedback, so that we can make product more and more quality.
- Easily rollback if something wrong happened.



Why do we need CI/CD for Udapeople?

- First, it will help the Developer Team working faster, more effectively because they only need to focus on coding, and since CI is automated, it reduce those “human error” when they have to do CI manually.
- Again, CD is also automated so we can avoid wasting our money on unused resource, faster deployment and more frequently, reduced downtime from a deploy-related crash or major bug which may make us lose a lot of money.