# Udapeople - CICD

What is a benefit of continuous integration and continuous delivery (ci/cd)

## **Overview**

#### Feature rollout process:



#### Without CICD:

- 1. Human error
- 2. Slow process
- 3. Security
- 4. Downtime

# **Continuous Integration**

The practice of merging all developers' working copies to a shared mainline several times a day:

- Build
- Test
- Analyze
- Dependency vulnerability testing
- Store artifact

Reduce time cost; Avoid defects; Avoid security; Less human error

## **Continuous Deployment**

A software engineering approach in which the value is delivered frequently through automated deployments:

- Creating infrastructure
- Provisioning servers
- Copying files
- Promoting to production
- Smoke Testing
- Rollbacks
  - Faster deployments; Less infrastructure costs; Less time to market; Reduced downtime; Quick Rollback

## **Benefit of CICD**

- Team doesn't have to spend days preparing for a release anymore.
- Release more often
- Encouraging iterating faster
- Deployments pipelines are triggered automatically for every change.
- Releases are less risky and less downtime
- Customers see a continuous stream of improvements, and quality increases every day, instead of every month, quarter or year.