

Proposal



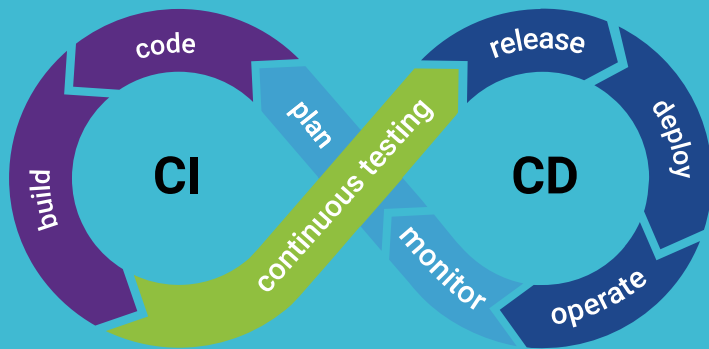
Use

Continuous Integration and Continuous Deployment

to improve the development process of
Udapeople



CI/CD — Definition



- **Continuous Integration:**

Code Changes by different developers are collected in a central location, automatically validated & seamlessly integrated into the current code base

- **Continuous Deployment:**

New Code is frequently delivered via automated deployments that need no human intervention



The combination of CI/CD enables **faster app delivery to the clients !**

Benefits for Udapeople



- **Reduced Costs in Development**
 - less time spent on bugfixes due to automated build & testing
 - no time spent on deployment process due to automated deployment → focus on feature development, increasing the value of our product
 - deployment is done by Dev Team → no operations team needed
- **Higher Customer Satisfaction**
 - Delivery of high quality product
 - Reduced time-to-market for new features/improvements
- **Reduce/Eliminate unexpected Costs**
 - No failed deployments in production due to human errors
 - Less time spent on hotfixes
- **Better work experience in Dev Teams**
 - Complex and ,scary` integrations of features into production systems are no longer needed
 - Dev Teams do not need to worry about deployment procedure → automated deployment pipelines do not need any human interventions

Getting started with CI/CD



✓ ... at low costs

- Many free, open source tools around CICD available
i.e. gitlab, Circle CI, ...

✓ ... realisation can happen step by step

- Development teams can continuously build up their CI/CD pipelines step by step
- Start with automated tests, code quality scans, ...
- Proceed until fully automated deployments to different environments (Test, IAT, Production)