

# CI/CD proposal for Udapeople project

Designing and delivering software projects with  
ease and confidence.

# The problem

Developing and releasing software can be a complicated process, especially as applications, teams, and deployment infrastructure grow in complexity. Often, challenges become more pronounced as projects grow. To develop, test, and release software in a quick and consistent way, developers and organizations have created three related but distinct strategies to manage and automate these processes.

# The way forward: **CI/CD**

**Continuous Integration + Continuous Deployment = Continuous Delivery**

Continuous integration focuses on integrating work from individual developers into a main repository multiple times a day to catch integration bugs early and accelerate collaborative development.

Continuous delivery is concerned with reducing friction in the deployment or release process, automating the steps required to deploy a build so that code can be released safely at any time.

Continuous deployment takes this one step further by automatically deploying each time a code change is made.

# Benefits of CI/CD

## ➤ INCREASE REVENUE

- New value-generating features released more quickly
- Less time to market

## ➤ PROTECT REVENUE

- Reduced downtime from a deploy-related crash or major bug
- Quick undo to return production to working state

## ➤ AVOID COST

- Less bugs in production and less time in testing
- Prevent embarrassing or costly security holes

## ➤ REDUCE COST

- Less developer time on issues from new developer code

# Thank you.

## References

- <https://www.digitalocean.com/community/tutorials/an-introduction-to-continuous-integration-delivery-and-deployment>
- <https://www.udacity.com/>