



# UDACITY

# CI/CD

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# WHAT IS CI/CD ?

CI/CD stand for continuous integration and continuous delivery. allows organizations to ship software quickly and efficiently. CI/CD facilitates an effective process for getting products to market faster than ever before, continuously delivering code into production, and ensuring an ongoing flow of new features and bug fixes via the most efficient delivery method.

# CONTINUOUS INTEGRATION (CI)

It is the practice of integrating changes from different developers in the team into a mainline as early as possible, in best cases several times a day. This makes sure the code individual developers work on doesn't divert too much. When you combine the process with automated testing, continuous integration can enable your code to be dependable.

# CONTINUOUS DEPLOYMENT (CD)

- It is closely related to continuous integration and refers to keeping your application deployable at any point. It involves frequent, automated deployment of the master branch to a production environment following automated testing.



# CI/CD BENEFITS

- Make Revenue

Faster and More Frequent Production Deployments ensures more quicker releases. Removal of manual checks before deployment means less time to market.

- Protect Revenue

Automated smoke test reduces downtime due to deploy related crash or a major bug. Automated rollback due to a job failure means a fast undo from production to working state.

# CI/CD BENEFITS

- Avoid Cost

Automation of infrastructure creation hence faster deployment and less human error. Catch unit test failure ensures less bugs in production environment and less time testing. Detecting security vulnerabilities avoids future embarrassment from security attacks.

- Reduce Cost

Automation of infrastructure cleanup prevents unwanted cost on unused resources. Catching compile errors after merging reduces time spent on issues from new developer code.



THANKS