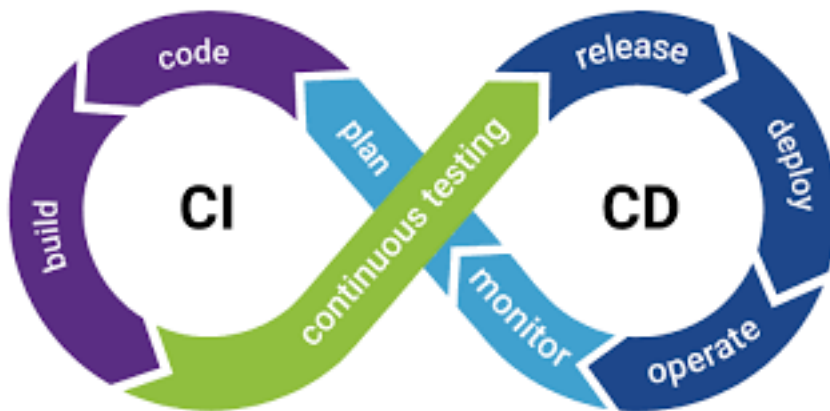


The Fundamentals and Benefits of CI/CD

CI/CD Udacity

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The CI/CD Pipeline



A pipeline is a process that drives software development through a path of building, testing, and deploying code, also known as CI/CD. By automating the process, the objective is to minimize human error and maintain a consistent process for how software is released. Tools that are included in the pipeline could include compiling code, unit tests, code analysis, security, and binaries creation

CI/CD is the backbone of a DevOps methodology, bringing developers and IT operations teams together to deploy software. As custom applications become key to how companies differentiate, the rate at which code can be released has become a competitive differentiator.

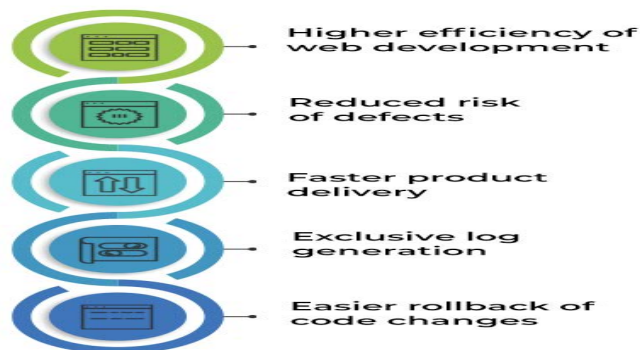
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BENEFITS OF CI/CD



1. Higher efficiency

Increased productivity is one of the leading advantages of a CI/CD pipeline

You should automate your process if you have a review process that includes deploying code to development, testing, and production environments and entering multiple commands across several domains

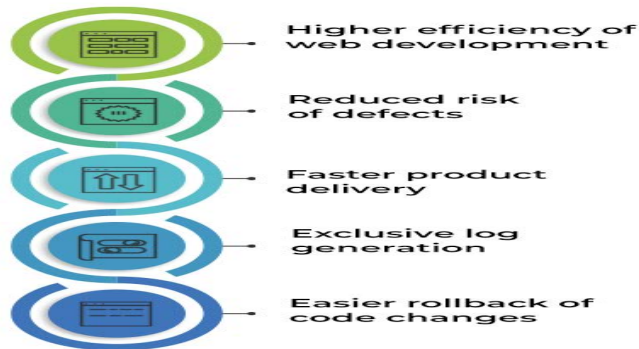
2. Reduced risk of defects

You can test and deploy code more frequently using a CI/CD pipeline, giving QA engineers the power to identify and fix errors as soon as they occur

3. Faster product delivery

CD enables your team to provide customers with frequent and timely updates. When CI/CD is used, the entire team's efficiency increases, including the release of new features and fixes to problems.

BENEFITS OF CI/CD



4. Quick rollback if required

One of the most exclusive benefits of a CI/CD pipeline is that it leads to the quick and easy rollback of code changes if there are any issues in the production environment after a release

5. Efficient testing & monitoring

Using continuous monitoring, Ops teams can oversee and ensure that the application is running as expected and that the environment is stable. They must ensure that the applications perform optimally.

With all these benefits we're Create, Protect Revenue, Control cost, Reduce cost.