

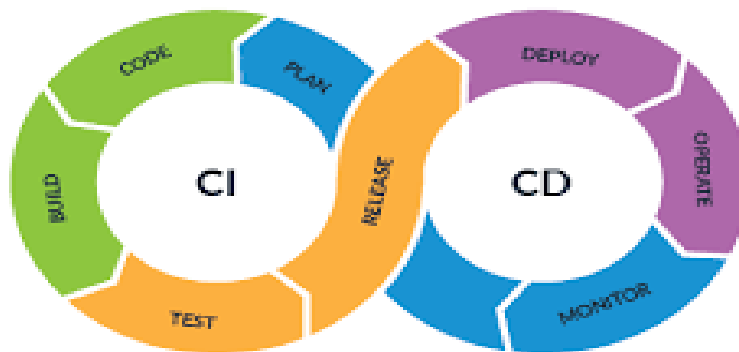
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PROPOSAL FOR A CONTINUOUS INTEGRATION/CONTINUOUS DELIVERY (DEPLOYMENT) PIPELINE

Situation: The Development and Operations teams request for the implementation of a continuous integration and continuous delivery/deployment pipeline in order to automate and eliminate certain time consuming activities in both the development and operations teams such as testing and deployment. The traditional software delivery process has proven to be slow and prone to errors which in turn leads to downtime thus the request for the addition of a continuous integration and continuous delivery/deployment pipeline.

Proposed solution: The addition of the pipeline will enable the DevOps team to automate critical processes such as code integration and the software delivery process which is key to keeping our customer base happy because they will be able to get access to new features quicker and without hiccup which will in turn increase our company revenue and further protect it.

A typical CI/CD pipeline:



BENEFITS OF CI/CD PIPELINE

Firstly, Continuous Integration is the practice of merging all developers' working copies to a shared mainline several times a day. Continuous Delivery is an engineering practice in which teams produce and release value in short cycles and Continuous Deployment is a software engineering approach in which the value is delivered frequently through automated deployments. The benefits involved in implementing the pipeline include:

1. The implementation of the CI/CD pipeline enables the development team to catch compile errors after merge. This tends to reduce the amount of time developers spend on debugging issues from new code and rather focus on developing. This in turn reduces the cost of operations since more time isn't spent spinning up new resources due to faulty code.
2. The addition of a ci/cd pipeline to our stack will enable the operations team to Automate Infrastructure Creation. Instead of manually assembling the servers that make up our infrastructure, The operations team will be able to quickly spin up servers with the right dependencies on them using code. Thus eliminating the factor of human error previously seen in older deployments leading to the company avoiding the cost involved in paying upfront for our infrastructure.
3. Revenue Growth can be attained by implementing a ci/cd pipeline since it helps the development team release production ready software faster and more frequently by giving the customers new and improved value-generating features.
4. Implementing a ci/cd pipeline helps the company reduce cost through the automation of infrastructure cleanup and what this means is a reduction in cost associated with unused resources.
5. Revenue Growth can also be attained with the implementation of the ci/cd pipeline through the automation of the entire software delivery process, which is to deploy to production without manual checks which reduces the time it takes for a complete working product to reach the market.
6. Another benefit i want to give attention to is reduced deploy errors which will translate to a protection of our revenue. The implementation of the CI/CD (Continuous Integration/ Continuous Delivery) framework will automate the testing of our code and reduce downtime from deploy-related incidents which in turn protect our revenue by not shipping out faulty products to our consumers.

I believe the benefits stated above will be present in our company if the requested pipeline is approved and added to our stack.