

Benefits of CI/CD for Udapeople.

Proposal to implement new process.



Overview

- What does CI/CD Stands for.
- What are the issues with the current process for deliveries.
- How CI/CD can help us optimize the current code delivery process
- What will be the challenges we can face with the new delivery process.



What Does CI/CD Stands For ?

Continuous Integration : Continuous integration is the process of merging developers branches into the main branches several times a day, with fully automated testing.


Continuous Delivery : Continuous Delivery make sure that the new features are released quickly to customers in an automated manner.

Continuous Deployment : Continuous deployment works with continuous delivery in such a way that it allows frequent automated deployments with certain more abilities like infrastructure deployment, smoke tests etc.




What are the issues with the current process for deliveries ?

- Manual Deliveries are always prone to human error.
- Fixing those errors may require few other developers working hours to debug the exact issue.
- Deployments are always complex, only few people in a team have the expertise which may increase the dependencies on those certain people.
- Smoke testing and other verifications are required to be done manually, which delays the deliveries.



How CI/CD can help us optimize the current code delivery process

- CI/CD contains all the processes which are predefined as well as automated.
- Predefined and automated jobs removes the chances of human errors, which reduce the number of failed deliveries.
- Less number of failed jobs results in reduction of business costs which were earlier used to fix the bugs generated due to human errors.
- Automated jobs and tests results in faster deliveries which adds value to a business.



What will be the challenges we can face with the new delivery process.

- Creating a CI/CD Pipeline requires high amount of initial learning and cost. It might seem overwhelming compared to current process.
- Delivering a CI/CD pipelines is not a one time thing, it requires constant support to align it to the organizations business process.
- Even though there are some challenges, still CI/CD can improve business process and reduce cost on the long run.