UDAPEOPLE CI/CD PROPOSAL

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CI/CD EXPLAINED

Continuous Integration

Continuous Integration (CI) describes the process of automating the merging of code from the different development branches to the main branch several times a day.

Continuous Delivery

Continuous Delivery helps us to push changes to our software products quickly to our customers at any time in an automated way.

Continuous Deployment

Continuous Deployment is an extension of Continuous Delivery by allowing automated deployments without any human interaction or involvement.

OUR CURRENT PAINPOINTS

1. Our manual deployment process is error-prone and often leads to delays during production deployments.

2. We don't have adequate time to run quality analysis and tests which often leads to poor quality software

3. Our deployments are quite complex and involve a lot of custom scripts. Our deployments also currently don’t include rollback and smoke testing mechanisms.

CI/CD BENEFITS

- Cost reduction due to less human errors and faster deployments
- Reduced complexity
- Reliable, repeatable deployments which will reduce the need for solely relying on a few people with extensive knowledge on the whole process.
- Automated Smoke Tests and Rollbacks will protect revenue due to reduced downtimes from deployment-related crashes.

CHALLENGES OF ADOPTING CI/CD

- Implementing CI/CD will require a high amount of initial cost and learning.
- Delivering CI/CD pipelines is continuous effort, not a one time job and will require constant support and improvement.

- Even with these challenges, CI/CD will improve our overall business processes and dramatically reduce costs in the long run.