Udapeople

09.04.20XX

—

Martin Nyagah

Your Company

123 Your Street

Your City, ST 12345

Overview

This proposal is for implementing Continuous Integration/Continuous Deployment(CICD) for Udapeople Products.

CICD is an automated approach to building and deploying software. It has become a good or rather best practice in modern software development. The beauty of CI/CD is that every change in our codebase is automatically built, tested, and deployed to our cloud-based infrastructure thus ensuring an up-to-date, stable, and secure product.

Goals

1. To improve software development speed, quality, and reliability by automation.
2. To prevent embarrassing costly security holes.

What are the benefits of CI/CD to the company?

The table below summarises the reason why we need to switch to CI/CD:

1. We will be able to catch compile errors after merging quickly and what that means is less developer time on issues from new developer code and hence reduced cost
2. We will be able to catch Unit Test Failures on time and thus fewer bugs in production meaning we spend less time testing and that means we avoid unnecessary costs.
3. We will be able to avoid or prevent embarrassing and costly security holes by being able to detect security vulnerabilities early and thus again avoid costs.
4. As stated earlier, automation!
    - This means less human error, faster deployments, and avoiding costs.
    - Fewer infrastructure costs from unused resources
5. New value-generating features will be released more quickly by faster and more frequent production deployments
6. Less time to market by deploying to production without manual checks and that means our revenue is increased
7. Reduced downtime from a deploy-related crash or major bug by performing automated smoke tests and thus protecting our revenue

8. In case of developer mistakes, we have an automated rollback that is triggered by a job failure hence a quick return to production working state and that protects our revenue.

I. Summary

CI/CD has very many benefits in comparison to its cons. It is my hope that the stated benefits among many others that I have not listed will prompt you to make the decision to move toward CI/CD.