



CI/CD PROPOSAL

Udapeople App

Abstract

The intention of this proposal is to illustrate how the adoption of continuous integration and continuous delivery will become a game changer for Udapeople. Ci/Cd is the way to go for any organization that wishes to maximize profits, guard their revenue and improve on customer satisfaction. A study shows that in 2021, 83 % of IT decision makers reported that implementing DevOps practices unlocks higher business values.

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Introduction

Analyzing the value our clients receive from our software solutions and our company as a whole are equally crucial. I can't stress enough how important it is for us to build high-quality software solutions that accurately represent our ideal world in order to maintain our organization's reputation. If we were to achieve the goals of demand and supply, dealing with truly good high-end items, offering quick software release life-cycles for the same, and providing appropriate issue resolution procedures, is key to this engagement. The situation is that this desire isn't being adequately met by our present software release procedure. This means that we spend a lot of time and energy on manual, repetitive operations, integration, and challenges related to botched deployments.

What CI/CD is

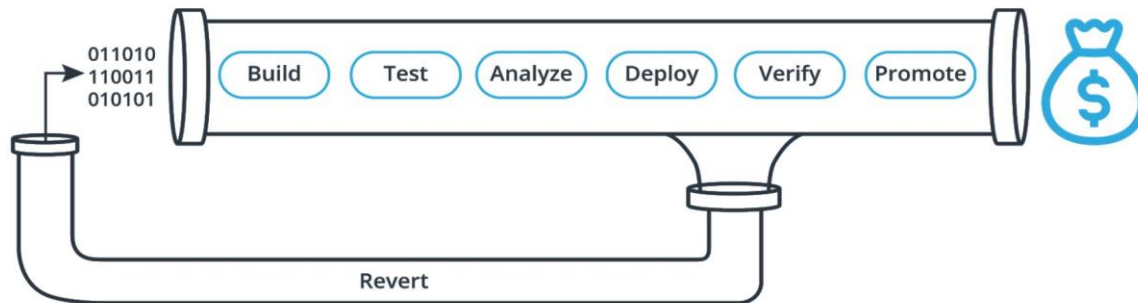
Continuous Integration - the process of often merging all developers' working copies into a single mainline. It is the "Creating" process. A high-quality, deployable artifact is the ultimate goal of CI, and everything relating to the code fits here! CI stages that are frequently encountered include:

1. Unit test
2. Compile
3. Store artefact

Continuous Deployment - is an approach to software engineering where value is frequently given through automated deployments. This area contains all information pertaining to using the artifact. The artifact is "Moved" from the shelf to the spotlight throughout this operation. Some typical CD-related phases could be:

1. Promoting to production
2. Smoke tests
3. Rollbacks
4. Creating infrastructure
5. Copying files
6. Provisioning servers

The CI/CD Pipeline



Benefits of CI/CD

Implementation of ci/cd comes with huge benefits. Below are some of the key benefits

- Monitoring & Logging is a benefit in the sense that it will enable our team to respond properly to overall system failures and thus ensuring quality client satisfaction which means increased revenue from uninterrupted usage of the end products.
- Minimize Technical Debt: technical debt may not be eliminated fully, but a CI/CD pipeline will help reduce it thus, reducing cost and protecting revenue.
- Detecting Vulnerabilities Early: will protect the company from egregious company situations, thus, protecting revenue and avoiding uncalled for expenses.
- Automated Infrastructure Creation: provisioning resources but with less human error, which means faster deployments and minimized costs.
- Reduced downtime: deployment related crashes or major bugs can be handled by implemented by allowing ci/cd revert back to previous working application.