Udapoeple

CICD Technology

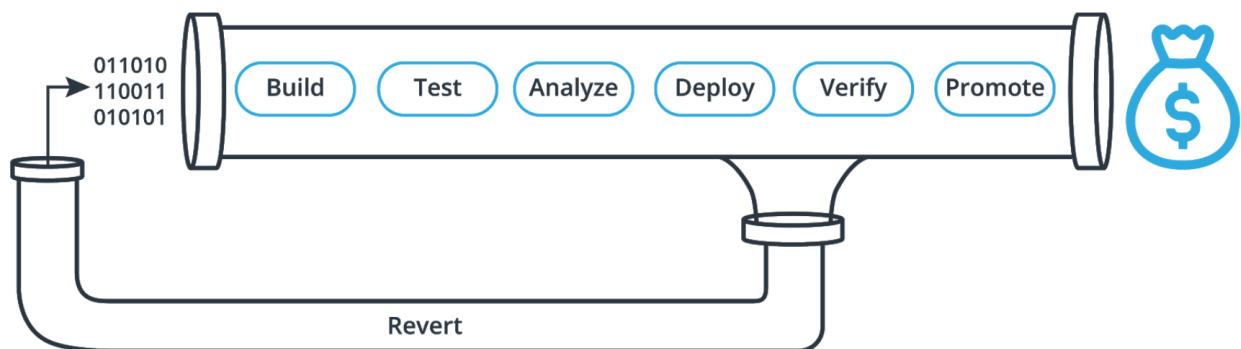# Request for including CICD Technology in our Udapeople Project

I am writing this request for your approval of a small change in our tools which use in our current project. To make this project work successfully, I am requesting to include and use cicd Technology in our project. The reason for this change is for to allow for further product testing efficiently before our release. With this supplemental tool, we will be able to ensure the perfect implementation of our product to provide a working product before the release.

What CICD

CI/CD is a method to frequently deliver apps to customers by introducing automation into the stages of app development. The main concepts attributed to CI/CD are continuous integration, continuous delivery, and continuous deployment. CI/CD is a solution to the problems integrating new code can cause for development and operations teams (AKA "integration hell").

Specifically, CI/CD introduces ongoing automation and continuous monitoring throughout the lifecycle of apps, from integration and testing phases to delivery and deployment. Taken together, these connected practices are often referred to as a "CI/CD pipeline" and are supported by development and operations teams working together in an agile way with either a DevOps or site reliability engineering (SRE) approach.

The CI/CD Pipeline

Reason for choosing CICD Technology

This Table shows the benefits of using CICD Technology in our project including clarification of technical and business values

Technical value	BusinessValue	Clarification
Catch Compile Errors After Merge	Reduce Cost	Less developer time on issues from new developer code
Catch Unit Test Failures	Avoid Cost	Less bugs in production and less time in testing
Detect Security Vulnerabilities	Avoid Cost	Prevent embarrassing or costly security holes
Automate Infrastructure Creation	Avoid Cost	Less human error, Faster deployments
Automate Infrastructure Cleanup	Reduce Cost	Less infrastructure costs from unused resources
Faster and More Frequent Production Deployments	Increase Revenue	New value-generating features released more quickly
Deploy to Production Without Manual Checks	Increase Revenue	Less time to market
Automated Smoke Tests	Protect Revenue	Reduced downtime from a deploy-related crash or major bug
Automated Rollback Triggered by Job Failure	Protect Revenue	Quick undo to return production to working state

I know your return on investment is important to you, and I'm excited to deliver even greater results than you originally expected. I look forward to your approval.