



## Introduction to Continuous Integration and Continuous Deployment (CI/CD) and its Benefits for UdaPeople



# Introduction



UdaPeople is dedicated to providing the best possible HR experience for small businesses, and to achieve this, it is crucial that we have a solid software development process in place. Continuous Integration and Continuous Deployment (CI/CD) is a crucial aspect of this process that can bring numerous benefits to the UdaPeople product and the organization as a whole.

# What is CI/CD?



CI/CD is a software development practice where code changes are automatically built, tested, and deployed to production, with minimal manual intervention. This practice helps to ensure that code changes are tested and validated before they are deployed to production, reducing the risk of bugs and errors that can negatively impact the user experience.

## Continuous Integration

The practice of merging all developers' working copies to a shared mainline several times a day. It's the process of "Making". Everything related to the code fits here, and it all culminates in the ultimate goal of CI: a high quality, deployable artifact!

## Continuous Deployment

A software engineering approach in which the value is delivered frequently through automated deployments. Everything related to deploying the artifact fits here. It's the process of "Moving" the artifact from the shelf to the spotlight

# Benefits of CI/CD for UdaPeople



01

**Faster and more reliable software delivery:** CI/CD helps to automate the software development process, reducing the time it takes to get changes into production. This means that new features and bug fixes can be delivered to customers more quickly and with greater reliability.

02

**Improved quality:** By automating the testing process, CI/CD helps to identify and fix bugs and other issues before they reach production, leading to a higher quality product.

03

**Increased efficiency:** By automating many manual tasks, CI/CD reduces the amount of time and effort required to get changes into production, freeing up developers to focus on other tasks.

04

**Enhanced collaboration:** CI/CD helps to promote collaboration between developers, testers, and operations teams, by making it easier for them to work together to get changes into production quickly and efficiently.



# Conclusion



CI/CD is a proven software development practice that can bring numerous benefits to the UdaPeople product and the organization as a whole. By improving the speed, reliability, and efficiency of software delivery, CI/CD can help UdaPeople to better serve its customers and continue to lead the way in HR innovation.