



# Overview

Fundamentals

Benefits

### Fundamentals

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.

Continuous integration (CI) is the practice of automating the integration of code changes from multiple contributors into a single software project. It's the first step to deliver a high quality, and working artifact.

Continuous delivery automates the entire software release process. Every revision that is committed triggers an automated flow that builds, tests, and then stages the update. The final decision to deploy to a live production environment is triggered by the developer.

Continuous deployment goes one step further than continuous delivery. With this practice, every change that passes all stages of your production pipeline is released to your customers. There's no human intervention, and only a failed test will prevent a new change to be deployed to production.

## Benefits

# Faster and More FrequentProduction Deployment:

More revenue is made by shipping value generating features more frequently to the customers. Failed Deployments can easily be rolled back.

Business Point: Increased Revenue

#### Automated Smoke Tests:

♦ Finding bugs right away will protect our revenue by avoiding downtime that would have been caused by deploy-related crash thereby protecting our revenue.

Business Point: Protects Revenue

### No Manual Checks while Deploying to Production:

Less time to market will help us to make more money and avoid costs due to human error.

Business Point: Avoid Costs

#### ♦ Automated Unit Tests

Aving less bugs in our deployment and spending less time doing manual debugging would help us to avoid costs.

Business Point: Avoid costs