



"Accelerating Time-to-Market and Improving Code Quality: The Power of Implementing CI/CD in Product Development"

Benefits of CI/CD to achieve build and deploy automation within our company's products




# INTRODUCTION

Before the CI/CD came to exist, the following issues occurred in the Product Development:

- Investment of time in a release cycle than delivering value.
- Integration issues in product feature.
- Friction between the ops and dev departments
- Lost codes due to botched Images.

After CI/CD, the following development occurred:

- Faster time to market
  - Improved product security
  - Fewer bugs in features and less time in unit testing.
  - More feature development time from developers.
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# Continuous Integration

## What is 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 is involved here, and it all culminates in the ultimate goal of CI: a high quality, deployable artifact!

## Some common CI-related phases might include:

- Compile
- Unit Test
- Static Analysis
- Dependency vulnerability testing
- Store artifact



# Continuous Deployment

## What is continuous Deployment?

- A software engineering approach in which the value is delivered frequently through automated deployments.
- Everything related to deploying the artifact autonomously fits here. It's the process of "Moving" the artifact from the shelf to the spotlight without human intervention.
- Some common CD-related phases might include:
  - Creating and configuring infrastructure
  - Promoting to production
  - Smoke Testing (aka Verify)
  - Rollbacks in case of any failure



# Benefits of CI/CD at the Business Level

- Faster release cycles
  - Faster release cycles mean businesses get to onboard people as quickly as possible, which will further increase revenue.
- Improved code quality
  - An improved code quality would lead to a more performant product which increases revenue exponentially.
- Reduced security vulnerabilities
  - This would help to avoid cost by preventing embarrassing or costly security holes.