

Fundamentals and Benefits of CI/CD

To achieve build and deploy automation for cloud-based software

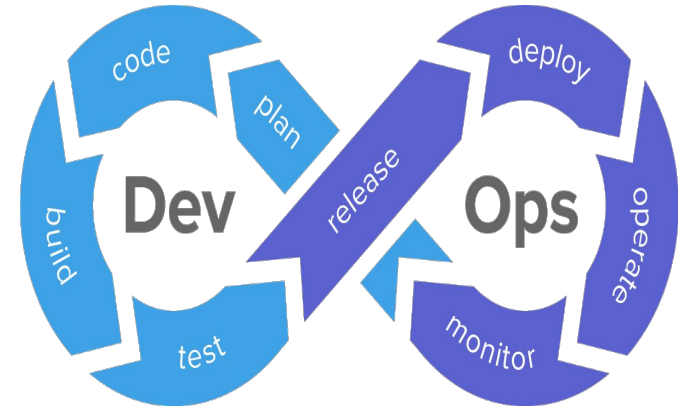


Contents

- Introduction
- Benefits of CI/CD
- Application of CI/CD

Introduction

CI/CD is the life saver from human errors that can be discovered late. Discovering human errors late means loss of time and cost and vice versa. CI/CD is an automated process that build, test, audit, deploy, and monitor the developed software. So, the team can comfortably focus on the development of new features while the code is in a safe hand with CI/CD.



Benefits of CI/CD

To save time and cost with focus on the business and product development



1. Boost revenue

Increases the revenue by decreasing the catastrophic losses.

→ **Expensive downtime**

Protect the production from downtime that influence the revenue and company credibility.

→ **Troubleshooting cost**

The time taken by developers to fix bugs is very expensive.

→ **Employees turnover**

The more company success, the less turnover that is also expensive.



2. Human errors

Reducing and preventing human errors can save your company from catastrophic issues

→ **Code testing**

Automate code testing and auditing that can be forgotten by developers.

→ **Infrastructure configs**

Create and configure the servers automatically.

→ **Deployment**

Project deployment on the server is ideal without errors.



3. Cost and time

CI/CD saves time and cost by discovering the issues early.

→ **Time**

Discovering the issues during running the pipeline saves huge time that discovering it on production environment.

→ **Cost**

You might loss clients, orders, etc. because the bugs appeared on production.



4. Monitoring

CI/CD can monitors your system 24/7.

- **Send emails or messages**
Monitoring can send messages to the team when particular issues happened (i.e running out of space).
- **Charts**
You can see graphs and charts to check the system progress, status, etc.

Applying CI/CD

To automate the build and deployment process

Many tools out there.

- Circle CI
- Jenkins
- Gitlab
- Bitbucket and more