



BENEFITS OF CI/CD

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- 1.What exactly does CI/CD mean?*
- 2.What are our present problems?*
- 3.How DevOps concepts could be useful to us?*
- 4.What will the hurdles be that we must overcome?*

OVERVIEW

Continuous Integration-

The process of often merging developer branches to the main branch is referred to as continuous integration. In the end, CI emphasises test automation and produces high-quality deployable artefacts.

Continuous Delivery-

Continuous Delivery, in addition to Continuous Integration, ensures that updates to software products can be made at any time and provided to clients in a timely manner.

Continuous Deployment –

Continuous Deployment is an extension of Continuous Delivery that permits frequent automatic deployments without requiring human input. Infrastructure Provisioning, Smoke Testing, Production Deployments, and automated Rollbacks are typical stages in Continuous Deployment.

WHAT EXACTLY DOES CI/CD MEAN?

- 1. Production deployments are frequently delayed by errors in our manual release procedure.*
- 2. As a result, we frequently end up with software that is of poor quality since we no longer have the time to perform quality analysis.*
- 3. Deployments are quite difficult. Just a select few professionals who have spent countless hours carefully crafting helper programmes can comprehend the entire procedure. There are no rollback methods or smoke testing.*
- 4. We receive business department input after business hours, which inhibits us from developing adaptable solutions.*

WHAT ARE OUR PRESENT PROBLEMS?

1. Expense savings brought on by fewer human errors and quicker deployments
2. Minimize complexity and risk when performing manual troubleshooting.
3. The source code contains the facts, not the opinions of a single or few specialists. This means that across the entire automation process, regressions and breaking changes in code as well as infrastructure deployments may be detected and fixed considerably more quickly. Moreover, source code is always updated to reflect changes.
4. Due to fewer problems caused by deploys and quick, automated rebuilding of a production-ready state, automated smoke tests and rollbacks will protect project revenue.
5. Higher customer satisfaction rates result from quicker customer feedback cycles since they are involved earlier in the feature development and deployment process rather than just at the end.

HOW DEVOPS CONCEPTS COULD BE USEFUL TO US?

- 1.Setting up CI/CD requires significant upfront investment and learning. This may appear daunting at first glance in comparison to existing best practises.*
- 2.Providing CI/CD pipelines is not a one-time endeavour; rather, it demands regular support, upkeep, development, and improvement.Notwithstanding some difficulties,*
- 3.CI/CD will ultimately enhance business operations and significantly cut expenses.*

WHAT WILL THE HURDLES BE THAT WE MUST OVERCOME?