

WHAT IS CI AND CD?

- Coninuous Integration (CI) is a set of practices to integrate a developer's work into the main source code to be deployed later. It consists of an automated process to build, test and analyze the code before merging it into the source code. That way developers can focus on writing codes and discussing best practices and use cases in PRs instead of trying to manually build and test the code before approving it for merge.
- Continuous Deployment (CD) is a set of practices to automate the deployment process. It handles the infrastructure creation, configuration, and even quick smoke tests before promoting a new code to production.

THE BENEFITS OF IMPLEMENTING A CI/CD PIPELINE

- Deploys are faster and more reliable, since they don't require manual work to create and configure infrastructure.
 This less bugs in production and better time to market.
- Testing costs are reduced drastically, since the pipeline server can run hundreds of tests much faster than a human. The QA team will focus more on a quality culture rather than a quality feature.
- Continuous releases lead to small releases, which are easier and cheaper to fix. No need to keep that bug in production generated by a huge release.
- Analyzing code at merge time can prevent costly security breaches.
- Automatically cleaning up old resources will prevent cost of unused infrastructure.