

Why we use CI/CD Pipeline?



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CI/CD pipelines are used to automate the process of building, testing, and deploying code changes. The main reasons for using a CI/CD pipeline include:

- Faster and more frequent releases**
- Improved collaboration**
- Increased quality**
- Better scalability**
- Increased efficiency**
- Reducing risk and minimize downtime**
- Better traceability and audibility**



- **Faster and more frequent releases:** By automating the build, test, and deployment process, developers can make changes to the codebase and push them to production more quickly and frequently.
- **Improved collaboration:** CI/CD pipelines facilitate collaboration between developers, QA, and operations teams by providing a common framework for building, testing, and deploying code.
- **Increased quality:** By automating testing and deployment, CI/CD pipelines help to catch and fix errors early in the development process, which can help to improve the overall quality of the codebase.



- **Better scalability:** Automating the build, test and deploy process allows teams to scale their development process as the codebase and team grows.
- **Increased efficiency:** Automating repetitive tasks such as building, testing and deploying the code, allows teams to focus on more important tasks such as innovation and problem solving.
- **Reducing risk and minimize downtime:** With CI/CD pipeline, the risk of human error is reduced and it helps in minimizing downtime during the deployment process, as the pipeline is built to handle the deployment process in an automated way.



→ **Better traceability and audibility:** With the help of CI/CD pipeline, it is easy to track and trace any issue that happens during the deployment process and helps in audibility of the entire process.

