



BENEFIT OF CI/CD

UdaPeople

WHAT IS CI/CD

Continuous Integration

The practice of frequently merging code changes from multiple developers into a shared repository, and automatically building and testing the software to detect any integration issues early in the development process. This helps to catch and fix bugs, conflicts, and other issues quickly, reducing the risk of introducing errors into the final product.



WHAT IS CI/CD

Continuous Deployment

It involves automatically deploying the successfully built and tested software changes to production or a production-like environment, making them available for end-users. This allows for rapid and frequent releases, enabling software teams to deliver new features, bug fixes, and improvements more quickly and reliably.





WHY CI/CD IS IMPORTANT

Early Detection of Bugs and Integration Issues

Continuous Integration helps catch bugs, conflicts, and other integration issues early in the development process. By frequently merging code changes from multiple developers into a shared repository and automatically building and testing the software, CI can detect issues quickly, allowing for prompt resolution before they become more complex and costly to fix.



WHY CI/CD IS IMPORTANT

Faster Time to Market

CD enables rapid and frequent releases, allowing software teams to deliver new features, bug fixes, and improvements more quickly and reliably. This helps businesses respond to changing market needs faster, gain a competitive advantage, and deliver value to end-users sooner.



WHY CI/CD IS IMPORTANT

Improved Code Quality

CI/CD promotes best practices such as automated testing, code reviews, and version control, which helps improve code quality. By automatically building, testing, and deploying software changes, CI/CD reduces the risk of introducing errors or vulnerabilities into production, leading to more reliable and robust software.



WHY CI/CD IS IMPORTANT

Collaboration and Transparency

CI/CD encourages collaboration among developers and teams by integrating their changes into a shared repository and providing visibility into the build and deployment process. This promotes transparency, accountability, and teamwork, leading to better coordination and faster issue resolution.



WHY CI/CD IS IMPORTANT

Automation and Efficiency

CI/CD automates repetitive tasks such as building, testing, and deploying software changes, reducing manual effort, human errors, and the time taken for these tasks. This leads to increased efficiency, faster development cycles, and higher productivity.



WHY CI/CD IS IMPORTANT

Risk Reduction

CI/CD helps reduce the risk of introducing errors or vulnerabilities into production by catching issues early and automating the deployment process. This minimizes the chances of software failures, data breaches, and other costly incidents, leading to improved overall software reliability and security.