Benefits of Continuous Integration and Continuous Deployment (CICD)

UDAPEOPLE

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What is Continuous Integration and Deployment?

Continuous Integration: A practice that requires developers to integrate their code versions, libraries, third party tools into a shared repository frequently. All changes is verified by an automated build, allowing teams to detect problems early. CI stages include build, Test, Static Analysis, vulnerability testing, Store artifact (deployable build).

Continuous Deployment: A software release process that aims to deliver value using automated deployments of software artifacts. This involves Creating infrastructure (servers, databases), Copying files, releasing to production, Smoke testing, Rollbacks.
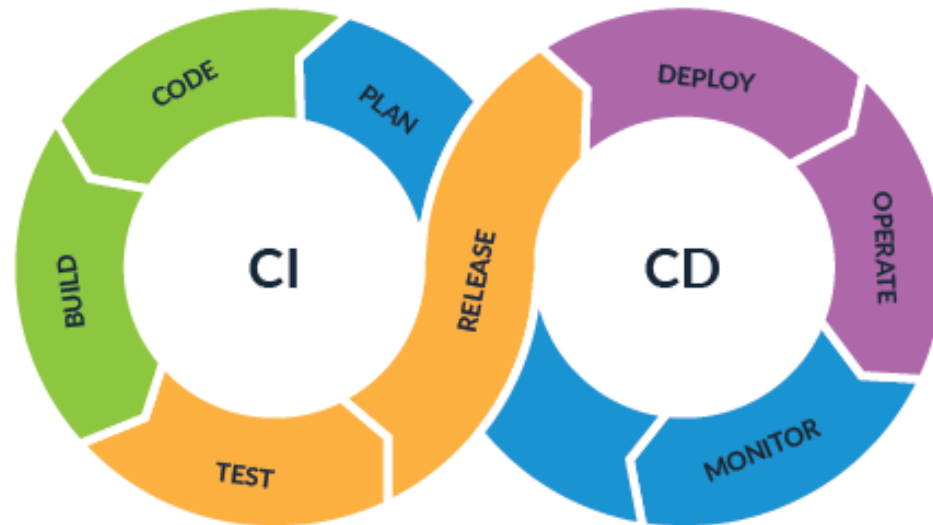
Image from Parasoft.com

Benefits of Continuous Integration

Detects developer code issues early, therefore reducing development costs

Increase customer satisfaction by ensuring quality control

Detect vulnerabilities therefore increasing customer trust in product security.

Reduces development time by increasing the productivity in the development process.

Benefits of Continuous Deployment

Removes error prone manual processes, reducing cost.

Reduces cost on infrastructure by automatic clean up of unused resources.

Reduces the time to release new features therefore increasing revenue.

Deliver value rapidly to customers.

Ensures a healthy version of the product, ensuring Availability

Conclusion

The introduction of automation into the UdaPeople development with CICD will increase productivity, ensure product quality, reduce cost and ensure timely delivery of value to customers ahead of the competition.