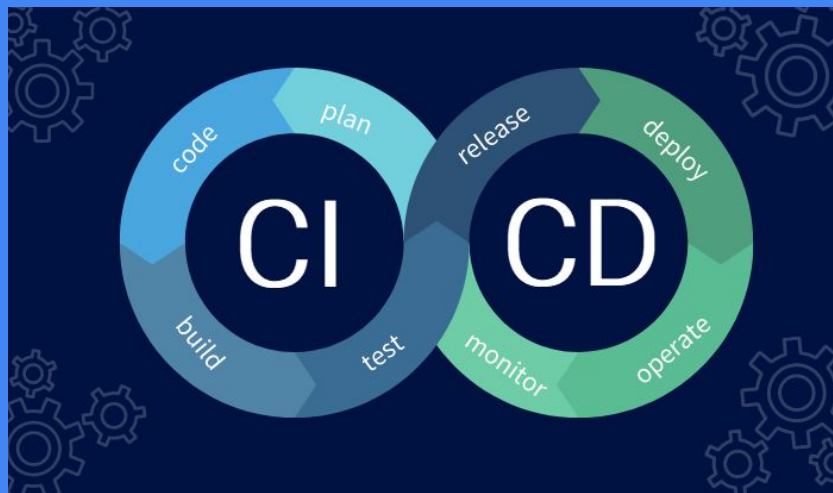# CI/CD Pipeline

Automating Deployment Benefits for Udapeople Products

Continuous Integration, Deployment and Delivery

A continuous integration and continuous deployment (CI/CD) pipeline is a series of steps that must be performed in order to deliver a new version of software. CI/CD pipelines are a practice focused on improving software delivery throughout the software development life cycle via automation.

Continuous Integration, Deployment and Delivery

CONTINUOUS INTEGRATION			CONTINUOUS DELIVERY	CONTINUOUS DEPLOYMENT
BUILD	TEST	MERGE	AUTOMATICALLY RELEASE TO REPOSITORY	AUTOMATICALLY DEPLOY TO PRODUCTION

 By automating the process, the objective is to minimize human error and maintain a consistent process for how software is released. Testing costs are reduced drastically. Your QA team spends less time testing and can focus on significant improvements to the quality culture.

Business Value of Continuous Delivery

Continuous delivery improves velocity, productivity, and sustainability of development teams.

Velocity

Automated software delivery pipelines help organizations respond to market changes better. The need for speed is of utmost importance to reduce shelf time of new features. With a low Time to Market, organizations have a better chance to outmaneuver their competition and stay in business.

Business Value of Continuous Delivery

Productivity

Productivity increases when tedious and repetitive tasks, like filling out a bug report for every defect discovered, can be performed by pipelines instead of humans.

This lets teams focus on vision while pipelines do the execution.

Business Value of Continuous Delivery

<u>Sustainability</u>

Automated pipelines reduce manual labor and lead to eventual savings since personnel is more expensive than tools.
Well-designed pipelines position organizations to innovate better and faster to meet their customers' needs.