

# CI/CD

Less cost and fast delivery for Udapeople

## What is CI?

#### **Conitinus integration (CI)**

Is the practice of automating the integration of code changes from multiple contributors into a single software project. It's a primary DevOps best practice, allowing developers to frequently merge code changes into a central repository where builds and tests then run. Automated tools are used to assert the new code's correctness before integration.

## Why CI?

#### What CI do?

CI helps to scale up headcount and delivery output of engineering teams. Introducing CI to the aforementioned scenario allows software developers to work independently on features in parallel. When they are ready to merge these features into the end product, they can do so independently and rapidly. CI is a valuable and well-established practice in modern, high performance software engineering organizations.

### What is CD?

#### **Contineous delivery (CD)**

Continuous Delivery is the ability to get changes of all types—including new features, configuration changes, bug fixes and experiments—into production, or into the hands of users, safely and quickly in a sustainable way.

Our goal is to make deployments—whether of a large-scale distributed system, a complex production environment, an embedded system, or an app—predictable, routine affairs that can be performed on demand.

## • Why CD?

#### What CD do?

Continuous deployment offers incredible productivity benefits for modern software businesses. It allows enterprises to respond to changing market demands and teams to rapidly deploy and validate new ideas and features. With a continuous deployment pipeline in place, teams can react to customer feedback in real-time.

# Benefits of CI/CD

- Increase efficiency.
- Release automatically.
- Deploy code fast.
- Reduce cost.
- Improve quality.
- Mitigate risk.
- Embrace iteration and information sharing.