Fundamentals and Benefits of CI/CD

Build fast, deploy faster, and save costs

What is CI/CD

Continuous integration (CI) and continuous delivery (CD), also known as CI/CD refers to a set of operating principles and practices that software engineering teams use to deliver code changes more frequently and reliably.

Continuous Integration

- Reduces code merge conflicts
- Compile errors are caught easily
- Faster code merging
- Cost reduction

Continuous Delivery

- Deployments are faster and more frequent
- Improves developer productivity as it can be automated with little manual intervention
- Updates and new features are delivered faster to customers
- Automated rollbacks in case of failure

How does it benefit us?

- **Faster delivery to market:** The time taken from development to production reduces which helps bring our product to market faster
- **Shorter resolution time for bugs:** In an instance where there are bugs, the time taken to fix those bugs and release to production can be greatly reduced, thereby increasing user confidence
- **Improves planning of development process:** CI/CD helps us visualise the software development process more accurately and thus, gives us a better chance at planning.
- **Customer satisfaction:** When bugs are resolved on time and feature updates are made without any hassle, the customer is more confident in the product and more satisfied