

Adopting CI / CD

Fundamental Concepts:

- **Continus Delivery:** a Software engineered practice / approach for teams to produce and release software (code versions) in short cycles.

Benefit: deliver "near-production-quality" to clients as quickly as possible

- **Continuous Integration:** the practice of merging all the developers work, in an Automated and Systematic Fashion to prepare the code for Deployment.

Benefit: Big short-cut to a lot of time consuming & Recuring processes so More Production is Achievable from Development-Team || More control & reduce costs

- **Continuous Deployment:** the practice of automating everything related to deploying the Software the Result of CI (ARTIFACT)

Benefit: another major decrease in time consuming & Recuring processes so More Production is Achievable from Operations-Team || More control & reduce costs

Benefits of the DevOps CI/CD Practice

- Help teams ship code to production faster
- Shortens the feedback loop between developers / engineers and customers
- No more risk of human errors
- CI/CD can help produce bug-free code
- No more shipping large code changes that can take time to integrate and test with the code base
- Greatly enhances Teams Productivity
- detecting source of errors becomes much simpler, Because It is much easier for QA engineers to validate small changes iteratively in a consistent system.
- Features can get into the hands of customers in an earlier state
- Developers gets extra energy and more productivity