

UdaPeople

Continuous Integration & Continuous Deployment & Delivery

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Definitions

- **Continuous Integration:** Is the practice of automating the integration of code changes from multiple contributors into a single software project or product. Often abbreviated as CI
- **Continuous Delivery:** Extends CI & allows deploying integrated code changes to a specified environment at a specified frequency. Could be daily, weekly, fortnightly, monthly (based on business requirement)
- **Continuous Deployment:** Automates release of software to a production or test server(environment) after a CI step is complete. This is normally done without any human intervention. Often abbreviated as CD

Business Value & Benefits

- **Shorter time to market:** New features can be released faster & with better efficiency as with CD you can increase the flexibility when a new feature is released to market therefore keeping up with competition.
- **Reduces costs:** CI/CD help reduce costs & labour as with automation developers are focused more on product features than setting up environments for the product to run before releasing a new feature to market. This also helps prevent human errors as with automated action, means that developers & engineers are more focused on fixing product issues or improving on it.
- **Improved product quality:** Developers will regularly push code in small batches which can be thoroughly tested & issues detected & fixed early on before it is released to the market. This reduces bugs & issues considerably before the product gets to market.

Business Value & Benefits

- **Rapid feedback from users:** Whenever new features are released to market more frequently, users get to interact with the new features quicker & can respond to changes even faster meaning that the product can be fine tuned early on & improved continuously increasing revenue & reducing costs as issues are identified early on.
- **Better communication:** One of the core attributes of a healthy CI/CD pipeline is effective communication. This is done & achieved when there is a flat structure between developers, product owners, testers & even users of the product. This allows for more flexibility & initiative while enhancing the sense of responsibility among team members for delivering an outstanding product to users.
- **Improved customer satisfaction:** The quicker a product is released to market, the happier customers are & that means the company's reputation is improved significantly. This in turn increases revenue as customers are happy to use the product & even help in improving it for the better.
- **Metrics for product performance:** One of the core attributes of CI/CD is collecting metrics & application performance of a product in the market. This allows developers to gather insights of a product in use & act on issues that may arise through predictive analysis instead of react to issues as they happen. This enables the product to stay ahead of the competition.

Thank You.