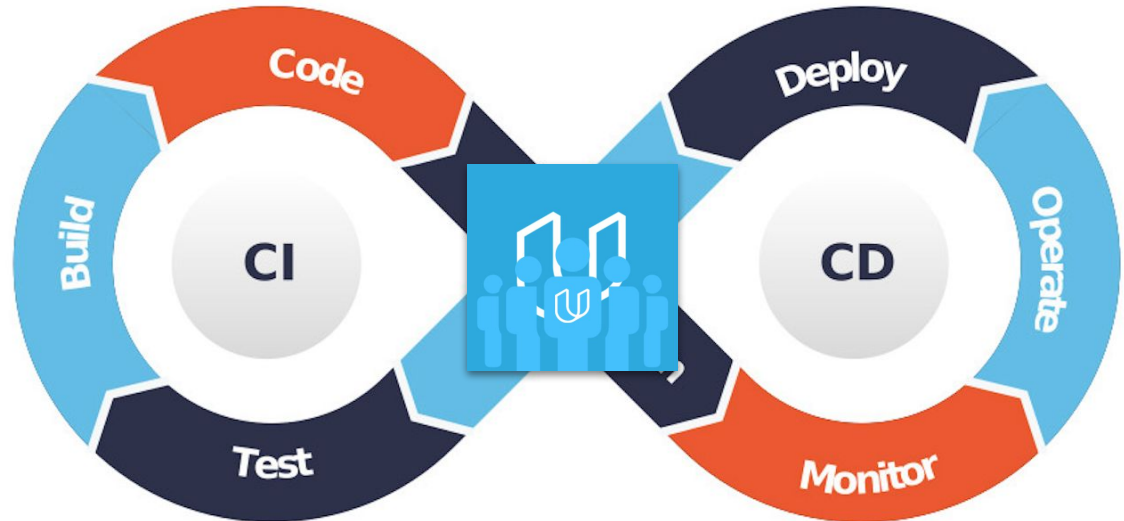# CONTINUOUS INTEGRATION(CI) - CONTINUOUS DELIVERY(CD) PROCESS

UDA-PEOPLE

Key points for discussion:

- What is CI/CD?
- What does CI/CD cost?
- What are the benefits of investing in CI/CD?
- Does it align with our leadership values/principles?

By:
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What is CI/CD?

- **Continuous Integration** is breaking our work up into small pieces, sharing our work with our peers, and QA-ing frequently.It is what compels the organization to focus integrating the work from each developer into the main repository multiple numbers of times in a day to gauge any integration bugs and speed up collaborative development.
- **Continuous Delivery** reduces friction in the release process and automates the steps that are required to deploy a build to release a code safely at any point in time. Continuous Deployment, on the other hand, is used to automate the delivery whenever a code is changed.

What does CI-CD cost?

- The cost to move to CI/CD depends on how much we are willing to invest in great automated testing.
- In case of UdaPeople, we have a rich suite of automated tests including end-to-end tests rather than manual testing.Running automated tests on a CI tool costs far less and is more reliable than paying an engineer to do the same thing.
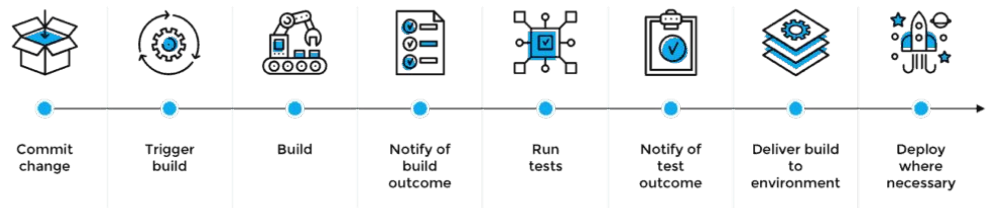- It reduces the chances of manual error during testing

What are the benefits of investing in CI/CD?

Yes, CI/CD is a great investment because it makes your developer's job more enjoyable, but engineer happiness is simply a side-effect of a great business decision.

There are also many benefits of CI/CD that go beyond engineer happiness and truly justify the investment:

- Superior Quality Code
- Accelerated Release Cycles
- Loyal Customer Base
- Detection & Isolation
- Easy Maintenance & Updates
- Cost Deduction
- Improved Mean Time To Resolution (MTTR)

CI/CD Pipeline

| Commit change | Trigger build | Build | Notify of build outcome | Run tests | Notify of test outcome | Deliver build to environment | Deploy where necessary |

Does it align with our leadership values/principles?

- CUSTOMER SATISFACTION: Since code quality is higher and features are delivered faster, customers can generate value right from the first feature deployment.
- Since all the repetitive tasks are taken care by the CI process, employees can spend their time learning new technologies and generating value for the organization. This also develops a healthy work culture.

Peak of jubilation

Ascent of celebration

Target ship date

Time

Plateau of obliviousness

Valley of complacency

Actual ship day

Slope of relief

Cliff of urgency

codilime
CREATING VALUE