

CI/CD Introduction

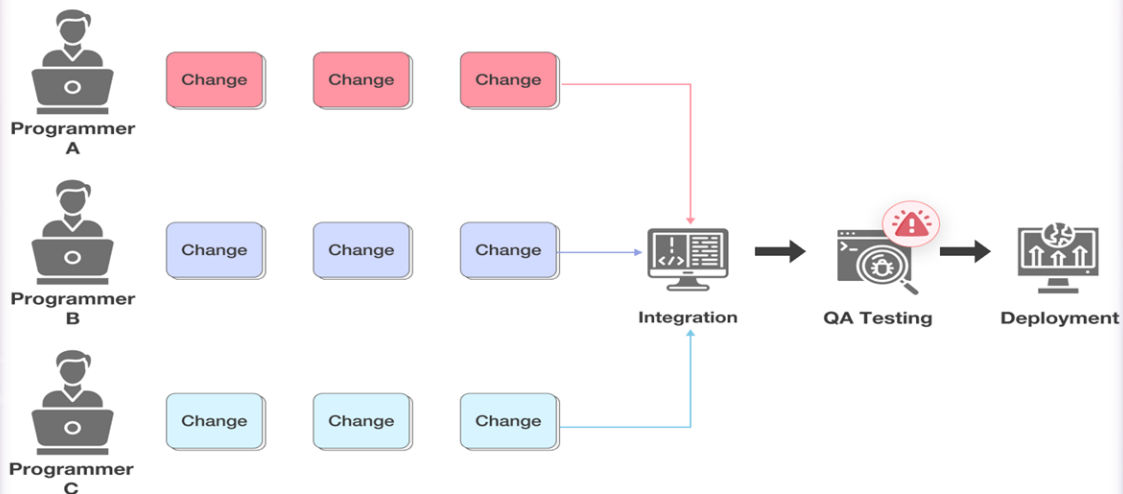
**“THE EARLIER YOU CATCH DEFECTS,
THE CHEAPER THEY ARE TO FIX.”**

‘DAVID FARLEY’

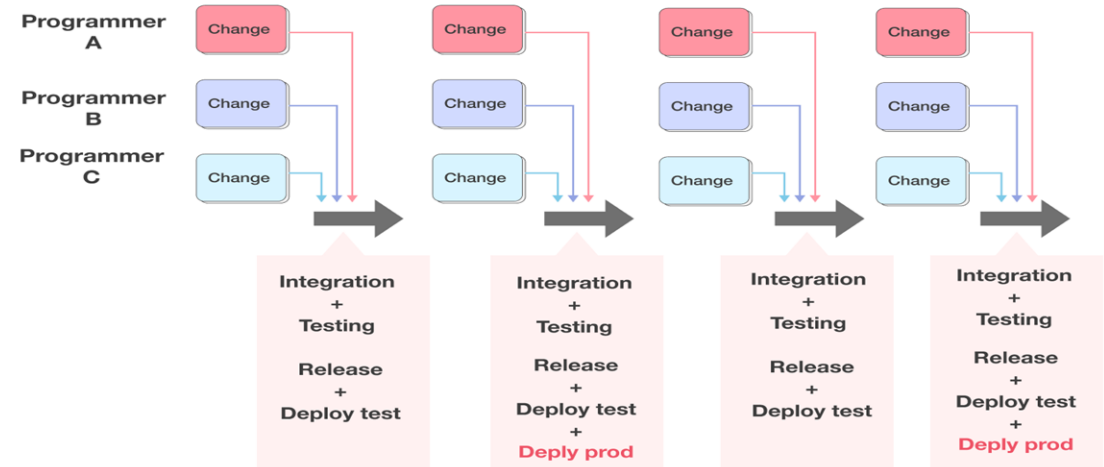
WHAT IS CI/CD?

- CI and CD stand for continuous integration and continuous delivery/continuous deployment.
- In the software world, the CI/CD pipeline refers to the automation that enables incremental code changes from developers' desktops to be delivered quickly and reliably to production.

Traditional Way

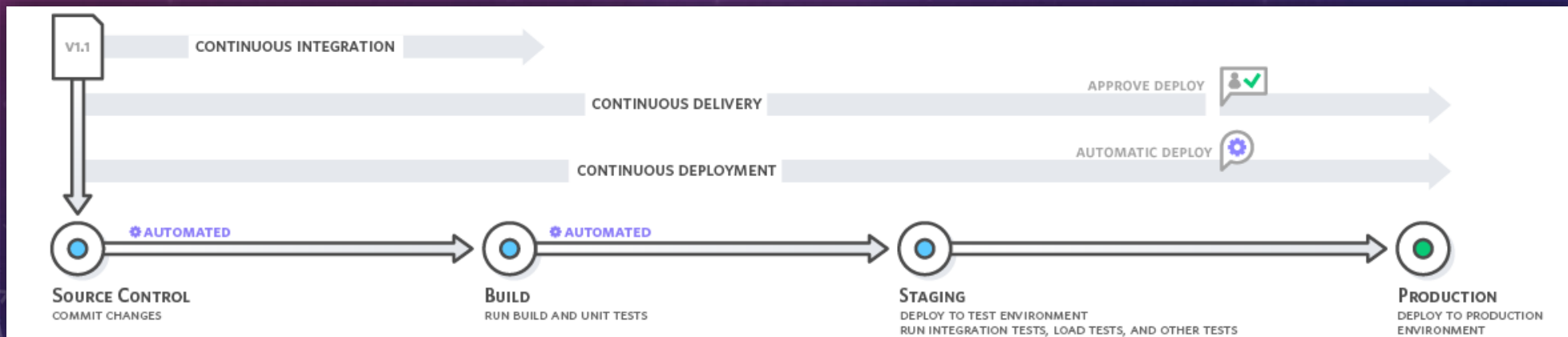


With CI/CD



DEFINITION OF CI & CD

- CI stands for Continuous Integration.
 - With continuous integration, developers frequently commit to a shared repository using a version control system. Prior to each commit, developers may choose to run local unit tests on their code as an extra verification layer before integrating.
 - A continuous integration service automatically builds and runs unit tests on the new code changes to immediately surface any errors.
- CD stands for Continuous Deployment.
 - Continuous deployment is a strategy in software development where code changes to an application are released automatically into the production environment.
 - This automation is driven by a series of predefined tests. Once new updates pass those tests, the system pushes the updates directly to the software's users.



WHAT ARE THE KEY CI/CD BENEFITS YOU NEED TO KNOW ABOUT?

- ***Reduced time-to-market***

The ultimate goal of a CI/CD pipeline is to build and deliver software to users at a rapid pace.

- ***Improved Mean Time to Resolution (MTTR)***

CI/CD significantly helps reduce the MTTR, as there are only minor changes in the code and detecting fault isolations is less complicated.

- ***Maximum consumer demand satisfaction***

Implementing CI/CD can facilitate end-user involvement and feedback in the continuous development stage that helps usability modifications.



WHAT ARE THE KEY CI/CD BENEFITS YOU NEED TO KNOW ABOUT?

- ***Rapid feedback cycle***

Combining the feedback, studying the user behavior, and tracking the key performance indicators can give insights into what works for your organization and how to design changes or improvements.

- ***Enhance communication and collaboration***

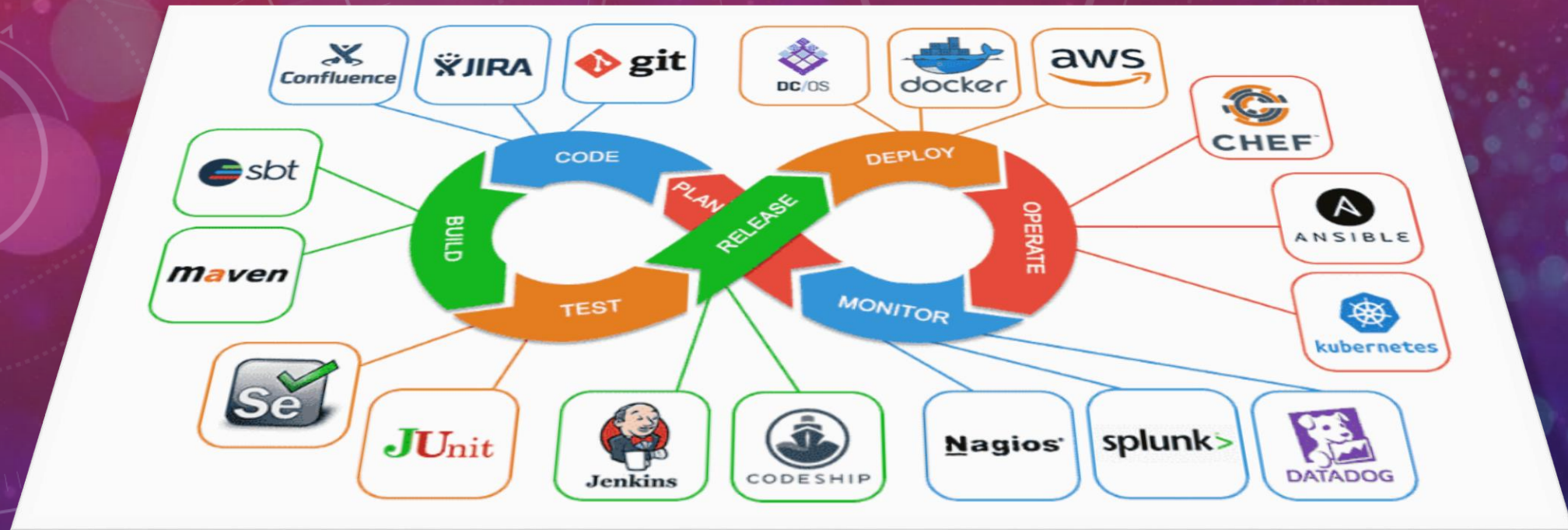
You must bring down the walls between teams and encourage more communication to achieve this. Breaking down the silos between the development and operations teams is a good start.



BEST PRACTICES FOR CI/CD

- *Less Time To Market* → *Increase Revenue* ↑
- *Less Human Error* → *Reduce Cost* ↓
- *Faster Deployment* → *Reduce Cost* ↓





THANK YOU!

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