

UDACITY PROJECT 3: CI/CD BENEFITS PROPOSAL

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CI/CD BENEFITS PRESENTATION

► What is CI/CD

Continuous integration and continuous deployment is a set of capabilities and principles that allows software changes to be made in a secure, timely and repeatable manner through automation of the software development process

► CI/CD pipeline

CI/CD Pipeline is the cycle involved with the continuous integrations and continuous deployment automation process.

Beginning with code commits into a central repository e.g. GitHub, code merges and testing builds, CI validates the software development process stages through automation.

In addition, CD on the other hand ensures the artifact from CI is setup into the production environment in a fast and efficient way possible through automation of the distribution stages

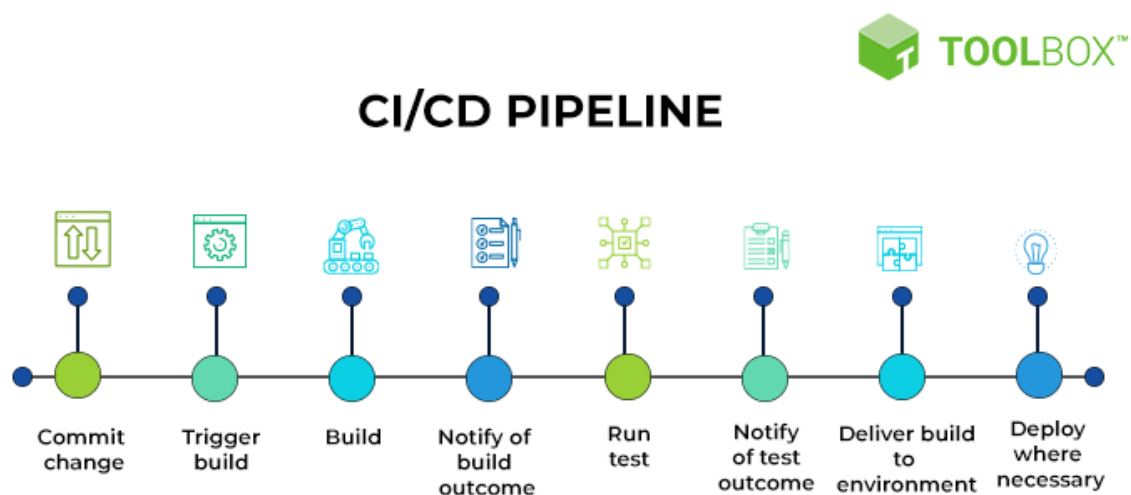


Image1 : courtesy – TOOLBOX

► Understanding CI/CD

When code is committed into a version control system such as GitHub, the process of continuous integration starts. The code is checked for quality through scanning, linting or analysis. The final result of the CI process of the CI stage is created after automated tests such as integration tests and unit tests are successful.

Continuous Deployment begins at the end of continuous delivery and ensures that the output of the ci process is automatically setup in the production environment

► CI/CD Benefits

Efficiency

CI/CD leads to a high efficiency and increased productivity through the automation of the software development life cycle.

Reduced defects

CI/CD pipeline ensures that code is tested and validated frequently and helps the developers to identify and fix errors at the early stages of development

Fast Product delivery

An effective CI/CD Pipeline ensures that multiple releases can be made on a daily basis.

From builds, tests and features delivery, the ci/cd tools and processes ensure that new features and fixes can be delivered on a daily basis

BENEFITS OF CI/CD



Image2: courtesy – TOOLBOX