

Benefits of CI/CD to achieve build and deploy automation within our company's products

What's Continuous Integration (CI)

- Briefly explained, CI is the practice of merging all developers' working copies to a shared mainline several times a day.
- Some common CI-related phases might include:
 - Compile
 - Unit Test
 - Static Analysis
 - Dependency vulnerability testing
 - Storing artifact

What's Continuous Development (CD)

- CD is a software engineering approach in which the value is delivered frequently through automated deployments
- Some common CI-related phases might include:
 - Creating and configuring Infrastructure
 - Promoting to Production
 - Smoke Testing
 - Rollbacks in case if any failure

Benefits of CI/CD

- So what are the Benefits?
- 1) Less developer time on issues from new developer code: It helps reduce time spent on solving issues which in turn reduces cost.
- 2) Prevent embarrassing or costly security holes: Due to how it detect errors before being merged, it helps avoid costly mistakes which avoids unnecessary cost also.
- 3) New value-generating features released more quickly: Since little time is spent solving unwanted issues, it creates more time for new features to be created hence creating Increased Revenue.
- 4) **Quick undo to return production to working state**: When error are detected, it rollsback the pushed codes so it doesn't affect the existing working system. This protects Revenue of our company.

