CI/CD - A better way to build and ship products to market

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



In software engineering, continuous integration is the practice of merging all developers' working copies to a shared mainline

The goal of continuous integration is to get a high quality and deployable artifact

- Some common CI-related phases might include:
 - Compile
 - Unit Test
 - Static Analysis
 - Dependency vulnerability testing
 - Store artifact

Continuous deployment is a strategy in software development where code changes to an application are released automatically into the production environment

Continuous deployment offers several benefits for enterprises looking to scale their applications and IT portfolio. First, it speeds time to market by eliminating the lag between coding and customer value—typically days, weeks, or even months.

- Some common CI-related phases might include:
 - Compile
 - Unit Test
 - Static Analysis
 - Dependency vulnerability testing
 - Store artifact
- Some common CD-related phases might include:
 - Creating and configuring infrastructure
 - Promoting to production
 - Smoke Testing (aka Verify)
 - Rollbacks in case if any failure

Benefits of CI/CD at the Business Level:

- Automate Infrastructure Creation:

 This will help to avoid cost by providing less human error, which means faster deployments
- Faster and More Frequent Production Deployments:
 This would help to increase revenue by releasing new value-generating features more quickly
- Automated Smoke Tests:
 This would help protect revenue by reducing downtime from a deploy-related crash or a major bug
- Detect Security Vulnerabilities:

 This would help to avoid cost by preventing embarrassing or costly security holes.
- Deploy to Production Without Manual Checks:
 This would help to increase revenue by making features take less time to market.
- Detect Security Vulnerabilities:

 This would help to avoid cost by preventing embarrassing or costly security holes.

And many more ...