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

CONTINUOUS INTEGRATION

The practice of merging all developers' working copies to a shared mainline several times a day. It's the process of "Making".

Everything related to the code fits here, and it all culminates in the ultimate goal of CI: a high quality, deployable artifact

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

CONTINUOUS DEPLOYMENT

- ■ - A software engineering approach in which the value is delivered frequently through automated deployments.

- ■ - Everything related to deploying the artifact autonomously fits here. It's the process of "Moving" the artifact from the shelf to the spotlight without human intervention.

- ■ - 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

- ■ - The rationale of CI/CD is the famous saying: 'a penny saved is a penny earned', so here's a preview of the benefits of setting up a CI/CD pipeline:

- ■   - 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

BENEFITS OF CI/CD AT THE BUSINESS LEVEL

- - 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 …