Benefits of CI/CD

EXPLAINING THE FUNDAMENTALS AND BENEFITS OF CI/CD TO ACHIEVE, BUILD, AND DEPLOY AUTOMATION FOR CLOUD-BASED SOFTWARE PRODUCTS

What is CI/CD Pipeline?

- CI/CD Pipeline: a series of steps that streamline the software delivery process.

- CI (Continuous Integration): a software development process where teams integrate code early and often into a central repository where they can run frequent tests and validate changes.

- CD (Continuous Deployment): the practice of automatically promoting code changes to production after they pass all automated tests in a continuous delivery pipeline.

The goal for CI/CD Pipeline

- Speeds up the release process by enabling teams to identify and fix problems early in the development lifecycle.

- Improves overall code quality.

- Provides an opportunity for the many functions and specialists involved in building a product – from security experts to marketing teams – to get better visibility of the software development process and to collaborate with each other more.

After using CI/CD Pipeline:

✓ Less developer time on issues from new developer code (Reduce cost)

✓ Less bugs in production and less time in testing (Avoid cost)

✓ Prevent embarrassing or costly security holes (Avoid cost)

✓ Less human error, Faster deployments (Avoid cost)

✓ Less infrastructure costs from unused resources (Reduce cost)

✓ New value-generating features released more quickly (Increase Revenue)

✓ Less time to market (Increase Revenue)

✓ Reduced downtime from a deploy-related crash or major bug (Protect Revenue)

✓ Quick undo to return production to working state (Protect Revenue)