CI-CD

THE ART OF DEPLOYING ZERO-ERROR APPS

CI - Continuous Integration

▶ It's the practice of merging all developers' working copies to a shared copy and doing some checks.

▶ It's the process of "cooking the app".

▶ When you think of code think of CI

▶ Its phases are

   ▶ Compile

   ▶ Unit testing

   ▶ Static code analysis / dependency vulnerability checks

   ▶ Storing the artifact (built app)

CD - Continuous Deployment

▶ The practice of delivering value frequently through automated deployments.

▶ Everything about deploying the built code fits here.

▶ It's the process of moving the cooked "built" app to the world.

▶ Its phases are

  ▶ Create the infrastructure

  ▶ Configure the servers

  ▶ Promote candidate to production

  ▶ Run smoke tests

  ▶ Rollback in case of failure

CI-CD Benefits

▶ When we think of business, the value(cost/revenue) comes first.

▶ By applying a simple framework of value that states; the business value is one of four things

   ▶ Increase revenue

   ▶ Protect revenue

   ▶ Reduce cost

   ▶ Avoid cost

CI-CD Benefits

▶ CI-CD can

Technical Benefit	Value	Business translation
Catches compilation errors	Reduce cost	Less time on issues from new developer code
Catches unit test failures	Avoiding cost	Less bugs in production
Automates infrastructure creation	Avoiding cost	Less human errors means faster deployments
Automates infrastructure clean up	Reducing costs	Less infrastructure costs from unused resources
Faster and frequent deployment	Increasing revenue	Value is being released more quickly
Automates rollbacks triggered by job failures	Protecting revenue	Returning production to working state asap