Fundamentals and Benefits of CI/CD to Achieve, Build, and Deploy Automation for Cloud-Based Software Products

Key points

Continous integration

In development, merging the developments of the developers in the main branch

Continuous Delivery

Quick releases in a automated way

Continuous Deployment

Automated testing and deployment without human interaction

CI/CD Solving problems
Feature waiting

Nowadays we make a big deploy every 2 months, customers need to wait and the knowledgment curve for them is high

Solution in CI/CD

Automated deployments with quality certifications more frequently due to automatization

CI/CD Solving problems
Quality

Nowadays the unit tests must be run manually and the errors don't stop the process automatically

Solution in CI/CD

Automated compiling and passing the unit tests with every commit

Saving cost produced by human errors in code

CI/CD Solving problems
Manual deployment errors

Nowadays we make the deployment in late hours and manually with manual rollback if needed

Solution in CI/CD

Smoke testing is automated

Rollback is automated if smoke tests fail

Saving cost produced by downtime and human resources in deployments