Proposal for Adoption of Continuous Integration and Continuous Delivery

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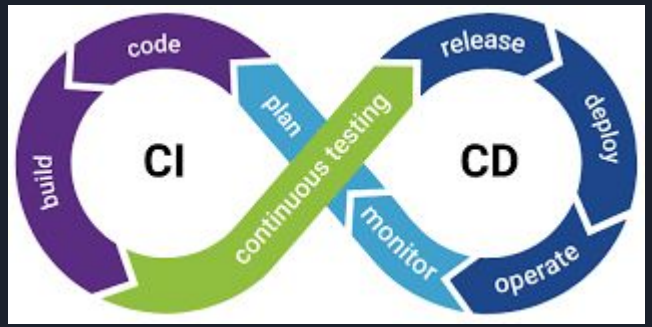
Summary

- Overview of CI/CD
- Why CI/CD important?
- CI/CD in Practice
- Transition to CI/CD
- Question and Answer

Overview of CI/CD

Continuous Integration - regularly build, test, and merge code changes into main branch.

Continuous Deployment - automatically test and release changes from the repo to production.



Why is CI/CD useful?

- Release software with less risks
    - CI/CD takes care of the automated testing, deployment and rollbacks.
- Can improve developer productivity.
    - More automation, less context switching, etc
- Ship features and fix bugs faster.
- Ability to push out small changes and iterate on them continually.

CI/CD in practice

Steps involved:

- Code Review
- Testing
    - Unit tests, integration tests, performance tests, etc
- Release engineering
    - Assess the risk and manage the deployment
- Deployment

Continuous Deployment

- Blue-green deployment
    - Deploy to a small fraction of people and dial it up
- Dark launches
    - Launch during non-peak hours
- Staging
    - Test the builds in multiple staging environments
    - Simulate some traffic

Transition to CI/CD

- Automated Testing infrastructure
    - Unit tests, Integration tests, Shadow tests, performance tests, etc
- Deployment Management System
    - Code reviews, VCS, deployment scheduling, staging pipelines, Rollbacks

Question and Answer

Thanks You