# CI/CD

CONTINUOUS INTEGRATION & CONTINUOUS DEPLOYMENT

# OVERVIEW

- **Continuous Integration**

Continuous integration is a process in devops where changes are merged into a central repository after which the code is automated and tested. The continuous integration process is a practice in software engineering used to merge developers' working copies several times a day into a shared mainline.

- **Continuous Deployment**

Continuous integration is a methodology for software releases where any new code update or change that makes it through the rigorous automated test process is deployed directly into the live production environment where it will be visible to customers.

# BENEFITS OF CI/CD

- ✓ **Catch Unit Test Failures:** This will increase the quality of the code which also leads to having less bugs in the prod app because errors are caught earlier in early phase.
- ✓ **Automated Smoke Tests:** This will reduce prod cost in the sense that automatic rollback can be done in case of failures hereby we have less risk of web app downtime.
- ✓ **Detection of Security Vulnerabilities:** CICD helps us detect security risks that can expose classified information to the public. This is help us tackle any security risk that the web app might experience on production.

# BENEFITS OF CI/CD CONT'D

- ✓ **Deploy to Production without manual checks:** It reduces manual labor and increase release time to market hence increasing our turnover.
- ✓ **Automated Rollback Triggered by Job failure:** This can help automate the process of rolling back and cleaning left over infrastructure hence we avoid been charged for un-used resources.

# CONTACT DETAILS

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