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:** Unit tests are not neglected with the CICD which will increase code quality and detect errors faster and earlier before they are shipped to production which will decrease production cost.
- ✓ **Automated Smoke Tests:** Automated smoke test after web app deployment and also Automated Rollback in case of failures will decrease downtime and reduce cost.
- ✓ **Detection of Security Vulnerabilities:** CICD helps us detect security risks that can expose classified information to the public. This is would save us money trying to win back the customers trust and rebuilding our image.

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/revenue.

- ✓ **Automated Rollback Triggered by Job failure:** This actually Automates the process of rolling back and cleaning any infrastructure left on the cloud platform which will help in reducing cost and down time.

THANK YOU.