UDAPEOPLE

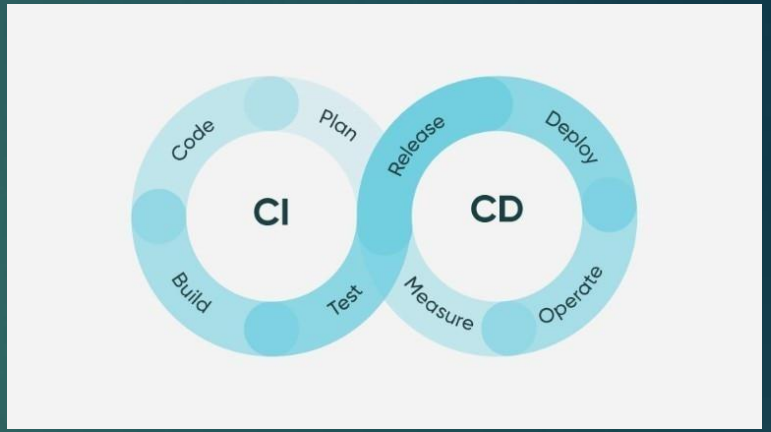
CI/CD APPROACH

Problem Statement – Current Approach

- Manual testing process
- Lack of time for proper Quality Checks
- Increased costs in manual testing and deploy process
- Late detection of failures leading to delayed releases
- Difficult roll back processes in case of failures
- Lack of quality and maintainable code

What is CI/CD

- Continuous Integration:
  - Refers to build/integration stage of software release process
  - Code changes are merged to central repository
  - Includes automated builds and test runs



- Continuous Delivery:
  - Auto prepares code changes for production release
  - Expands upon CI by deploying code changes to a testing/prod environment
  - Ensures deployment-ready build artifact, with passed standardized test process.

CI/CD Benefits

Technical Benefit		Cost Benefit
Automated Testing and Roll Back		Reduced Downtime and Quick Return to production
Frequent Deployments without Manual Checks		Reduced Shelf time and Faster releases
Automate Infrastructure Creation		Less human error, Faster deployments
Automate Infrastructure Clean-up		Less infrastructure costs from unused
Early bug and vulnerability detection		Less Bugs and Better secured application

Conclusion

CI/CD Pipelines ensures quality code and early bug identification with automated steps thruout the pipeline

Following CI/CD approach reduces the development and release costs by increasing the successful releases

Improves team efficiency by eliminating the monotonous tasks and utilizing the resources for more innovative activities