CI/CD

Benefits & Advantages

Intro

- CI:-
  - Continuous Integration is the process that allows developers to integrate new code into a shared repository (such as GitHub) throughout the day.
  - Once new code is merged with the existing repository, a new build is triggered and tests are performed automatically against the build to ensure nothing broken.

- CD:-
  - Helps developers merge the new code into the main branch with a high level of consistency. also responsible for testing the quality of the code and performing checks to make sure a functional build can be released into the production environment.

Benefits

- CI/CD Helping our business in three directions
    - Avoid COST
    - Reduce COST
    - Increase REVENUE

Avoid cost

1

Automate Infrastructure Creation

2

Less human error

3

Faster deployments

- Catch Unit Test Failures

4

Reduce bugs in production

5

Reduce testing time
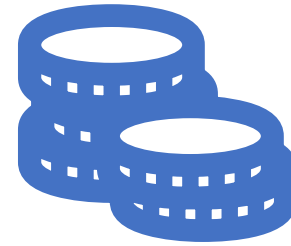
- Detect security vulnerability

Reduce Costs

Catch compile errors before merge

Less developer time on issues

Automate Infrastructure Cleanup

Less infrastructure costs from unused resources

Increase Revenue

Frequent production deployments

New value features released more quickly

Deploy to production automatically

Less time to market

Automated smoke tests

Reduce down time from a deploy-related crash

Automated rollback while deployment failure

Quick undo to return the production to the working state