CI/CD

Fundamentals and Benefits of building automated systems

Continuous Integration (CI)

Helps to ensure that all aspects of the codebase is working together. In practice, the code is built, run, and tested. The CI pipeline involves the following tasks:

- Changes detected to source code
- Project build
- Unit tests performed
- Integration tests
- Deployable artifacts

Continuous Delivery (CD)

Picks up where Continuous Integration leaves off. CD deploys code changes to the testing/ staging environment in the build. Pushes code to wherever you or users can get to it. The CD pipeline involves the following tasks:

- Code Review
- Staging
- Deployment

CI/CD Benefits

Faster Release Rate

Failures are detected faster, and as a result, can be repaired faster, leading to increased release rates.

Reduce Costs

Reduce the number of potential errors that can occur in the pipeline through automation.

Customer Satisfaction

Keep customers happy with fast turnaround of new features and bug fixes.

Fault Isolations

CI/CD designs systems such that when an error occurs, the negative outcomes are limited in scope.

Increased ROI

Increase your code quality, and reduce costly setbacks with automation.

Increase Transparency and Accountability

CI/CD is a great way to get feedback from your team. It is a way to provide rapid feedback and accountability.