

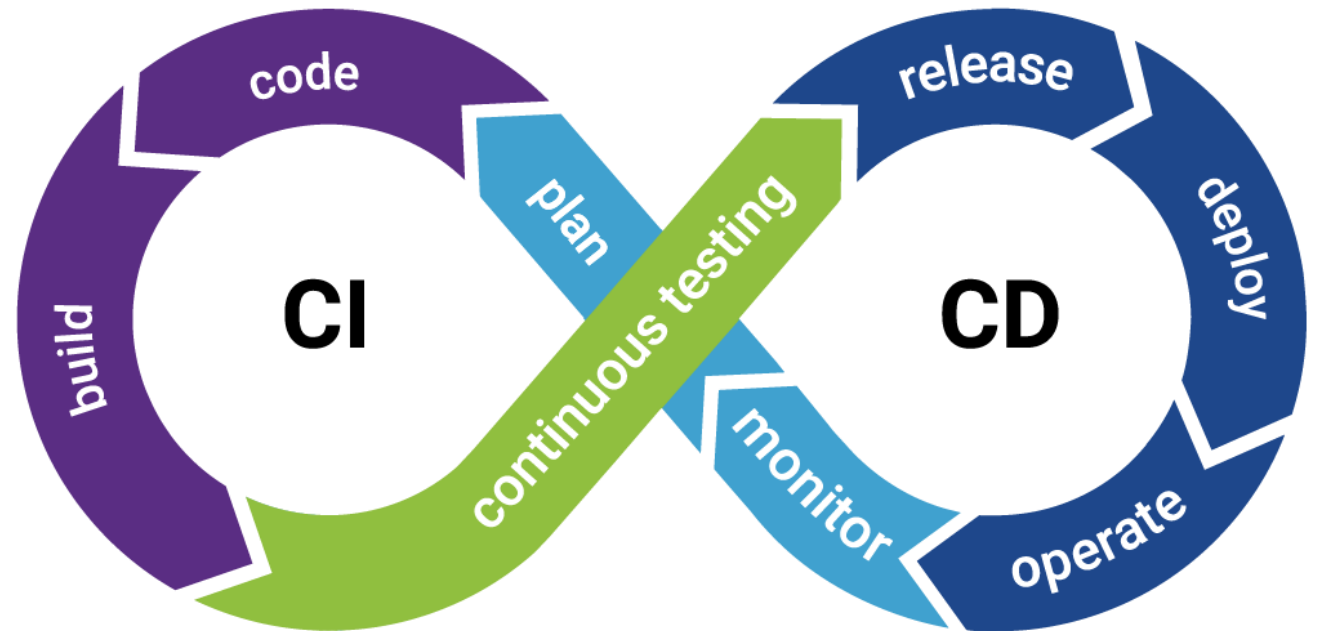
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Fundamentals and Benefits of CI/CD

What is CI/CD?

- CI stands for ***Continuous Integration***, is a software development practice in which all developers merge code changes in a central repository multiple times a day
- CD stands for ***Continuous Delivery***, which on top of Continuous Integration adds the practice of automating the entire software release process.

CI/CD Lifecycle



CI Benefits

- Reduces code conflicts.
- Faster code merge.
- Catch compile errors after merge.
- Increase in revenue.
- Cost Reduction.
- Cost Avoidance at some cases.
- Revenue protection.

CD Benefits

- Faster and more frequent production deployments.
- Avoid manual intervention by deploying to production in an automated fashion.
- Automated rollbacks in case of failure.
- Increase in market share
- Faster feature delivery for customers

CI/CD Benefits for Business

- **Customer satisfaction:** Buggy software can harm your brand reputation, Utilizing CI/CD approach keeps product up-to-date with latest technology and allows you to gain new customers and generate long term contracts for your company.
- **Reduce costs and boots profile:** Lowering chances of mistakes and limits the potential impact and loss that a deployment problem and bugs can cause.
- **Smaller Backlog:** As most of the process is automated to your tester now have the time to deeply focus on the important phase of testing to get higher quality product.
- **Shorter MTTR:** It makes mean time to resolution shorter because smaller changes with faster fault isolation.

CI/CD Benefits for Business Contd.

- **Accelerated time to market:** The release frequency will increase dramatically which makes the way from development to production is too short.
- **Fault Isolations:** Its help to isolate the faults and makes it faster and easier to be detected by combine monitoring the systems to report the stage and locations of the faults.
- **Increased productivity:** Thanks to the automation of routine process now the developer can focus on the crucial tasks only.
- **Flexibility and responsiveness:** Its makes application updates faster which help to release the new features faster and easier and fix the issues quickly once a bug detected.

CI/CD Benefits for Business Contd.

Action	Value
New value generating features released more quickly	Increase Revenue
Less time to market	Increase Revenue
Less human error, faster deployment	Cost Avoidance
Quick undo to return production to working state	Protect Revenue