

# CI/CD

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# What is CI/CD

- CI – Continuous Integration
  - The process of integrating multiple working copies to a central repository several times a day
- CD – Continuous Deployment
  - The process of releasing a change through the software development lifecycle through automation for each commit in a repository that results in a build.

# Benefits of CI/CD

- Smaller code changes – MVP (minimal viable product)
  - You change only a small amount of code that is simpler and easier to handle than larger changes
- Faster release time
  - The smaller changes require less time to validate which means testing time is reduced and therefore can be deployed from development to production a lot quicker
- Customer Satisfaction
  - The reduced release time means a faster turnaround for issues/bugs/new features/improvements

# Benefits for the business?

- Reduced cost
  - Automation reduces the number of errors that can take place if done manually. This frees up developer's time, tester's time and reduces the cost of each development cycle
- Reduced downtime
  - Depending on the type of service you run, you can have ZERO downtime releases, which means that your customers won't be impacted by any change
- Fault isolation
  - By releasing in smaller chunks, you are able to see which change introduced an error/bug which reduces time to find out root cause