



# Fundamentals and Benefits of CI/CD

Udacity - Cloud & DevOps

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# Outline

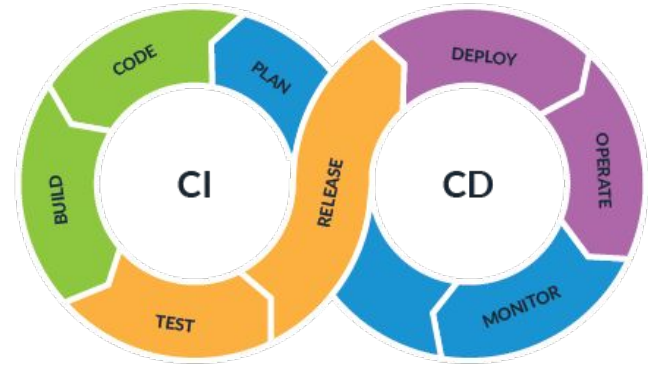
Introduction

Benefits

How to apply

# Introduction

CI/CD is a best practice for devops teams. It is also a best practice in agile methodology. By automating integration and delivery, CI/CD lets software development teams focus on meeting business requirements while ensuring code quality and software security.





# Benefits

- Reduce human errors by :
  - Automating everything that developer can do
  - No more manual steps in deployment and forget about it in next deployment
  - No more modifying environment settings in GUI
- Reduce risks:
  - Catch the errors early we don't have to wait until error appears in production env
  - Improve code and build quality
  - Increase confidence level



# Benefits Cont.

- Reduce Costs :
  - Catch build and compile errors
  - Run unit tests against the code and catch errors
  - Detect vulnerabilities in used packages
- Increase revenue:
  - Solve errors quickly
  - Easy rollbacks and updates
  - Less time to market
  - Customer can feel real progress and features



# How to apply

- Releases must be repeatable
- Automate everything
- Use version control to easy manage different code versions
- Measure , track and improve the quality continuously