

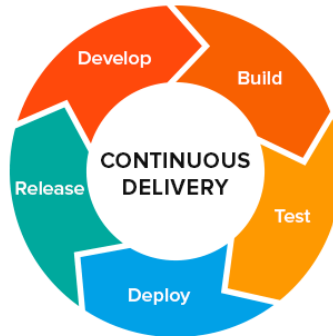
## Benefits of CI/CD implementation

# What is CI/CD?

- Continuous Integration (CI) is a development practice where integration into a shared repository happens frequently, preferably several times a day.
  - Each integration try can be verified by a automated set of tests and steps before it's merged into the main shared repository or passed to Deployment phase
- Continuous Deployment (CD) is a strategy for software releases where any code changes are automatically prepared for a release to production
  - It enables developers automate testing beyond just unit tests so they can verify updates more detailed and precise before deploying to customers

# What is CI/CD

- Continuous Integration(CI) and Continuous Deployment (CD) are development practices that combined can be referred as Continuous Delivery



Source: medium.com

# How can it help grow UdaPeople?

- Using CI/CD from early stages can save costs and time
  - Automated testing can catch compile errors early which reduces time on fixing issues from new changes
  - Catching unit tests early reduces time spent in testing later bugs in production
  - Automated infrastructure creation enables faster deployments
  - Reduced downtime in case of a major crash or error
  - Quick rollback in case of a major crash or error to the last production environments working state.
  - Automated cleanup reduces costs from unused resources
- It also increases revenue as fast and frequent automated deployments without manual checks reduces time to market

# How can it help grow UdaPeople?

- Summary
  - CI/CD helps developers deliver more stable code with early detection of errors which reduces the costs spend on hardware and human resources
  - Automated integration reduces time spent on transferring and testing new changes from one shared repository.
  - Automated deployment without manual checks can bring the product to the customer faster and more frequently